CALIFORNIA PUBLIC UTILITIES COMMISSION

Estrella Substation and Paso Robles Area Reinforcement Project

Draft Environmental Impact Report

Prepared by:

Horizon
WATER and ENVIRONMENT

December 2020

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California Public Utilities Commission

Estrella Substation and Paso Robles Area Reinforcement Project

Draft Environmental Impact Report

SCH #2018072071

Prepared for: **California Public Utilities Commission**
505 Van Ness Avenue
San Francisco, CA 94102

Contact: Robert Peterson, Project Manager

Prepared by: **Horizon Water and Environment, LLC**
266 Grand Avenue, Suite 210
Oakland, CA 94610

Contact: Tom Engels, PhD

December 2020

Horizon Water and Environment. 2020. Estrella Substation and Paso Robles Area Reinforcement Project – *Draft Environmental Impact Report.* (SCH #2018072071). December. (17.010.) Oakland, CA.

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Acronyms and Abbreviations

A	
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ADT	average daily traffic
AEDT	Aviation Environmental Design Tool
afy	acre-feet per year
AIDI	average outage duration
AIFI	average frequency of sustained outages
ALUP	airport land use plan
amsl	above mean sea level
APLIC	Avian Power Line Interaction Committee
APM	applicant proposed measure
Applicants	HWT, NEET West, and PG&E collectively
ASR	alternatives screening report
AST	aboveground storage tank
ATCM	Airborne Toxic Control Measure
B	
BAAQMD	Bay Area Air Quality Management District
BACT	best available control technology
BES	single bulk electric system
BESS	battery energy storage system
bgs	below ground surface
BMP	best management practices
BRTR	Biological Resources Technical Report
BS	Battery Storage
BTM	behind-the-meter
C	
C&I	commercial and industrial
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAIDI	average service restoration time
CAISO	California Independent System Operator
Cal EMA	California Emergency Agency
Cal EPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection

CalARP	California Accidental Release Prevention
CalEEMod	California Emission Estimator Model
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources Recovery and Recycling
Caltrans	California Department of Transportation
CAMP	Construction Activity Management Plan
CARB	California Air Resources Board
CASGEM	California Statewide Groundwater Elevation Monitoring
CASIO	California Independent System Operator
CB	circuit breaker
CBC	California Building Standards Code
CBIA	California Building Industry Association
CCAA	California Clean Air Act
CCIC	Central Coast Information Center
CCR	California Code of Regulations
CCRWCQB	Central Coast RWQCB
CDC	U.S Centers for Disease Control
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CDOC	California Department of Conservation
CEA	Computerized Energy Analysis
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CHP	California Highway Patrol
CI	*Coccidioides immitis*
CIWMA	California Integrated Waste Management Act
CIWMB	California Integrated Waste Management Board
City	City of Paso Robles
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNG	compressed natural gas

CNPS	California Native Plant Society
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
County	County of San Luis Obispo
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRLF	California red-legged frog
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWPP	community wildfire protection plan
cy	cubic yard

D

dB	decibel
dBA	A-weighted decibel
dbh	diameter at breast height
DEIR	draft environmental impact report
DER	distributed energy resources
DHS	California Department of Health Services
DIDF	Distribution Infrastructure Deferral Framework
DOGGR	California Division of Oil, Gas, and Geothermal Resources
DPA	Distribution Planning Area
DPM	diesel particulate matter
DPR	California Department of Parks and Recreation
DTSC	California Department of Toxic Substances Control
DVMT	daily vehicle miles traveled
DWR	California Department of Water Resources

E

EDD	California Employment Development Department
EIA	U.S. Energy Information Administration
EIR	environmental impact report
ELF	extremely low frequency
EMF	electromagnetic field
EMFAC	EMission FACtors
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act

F

FAA	Federal Aviation Administration
FEIR	final environmental impact report
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FHSZ	fire hazard severity zone
FLAME Act	2009 Federal Land Assistance, Management, and Enhancement Act
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
FTM	front-of-the-meter

G

GHG	greenhouse gas
GIS	gas insulated switch
G.O.	[CPUC] General Order
GPS	global positioning system
GSA	groundwater sustainability agency
GSPs	groundwater sustainability plan

H

H_2S	hydrogen sulfide
HAP	hazardous air pollutant
HCP	habitat conservation plan
HDD	horizontal directional drilling
HFHSZ	high fire hazard severity zone
HFTD	high fire-threat district
HHZ	high hazard zone
HMBP	hazardous materials business plan
HOA	Homeowner's association
Horizon	Horizon Water and Environment, LLC
HVAC	heating, ventilation, and air condition
HWCL	California Hazardous Waste Control Law
HWT	Horizon West Transmission, LLC
Hz	Hertz

I

IARC	International Agency for Research on Cancer
IBC	International Building Code
ICAO	International Civil Aviation Organization

ICBO	International Conference of Building Officials
ICS	Incident Command System
IEPR	Integrated Energy Policy Report
IPaC	Information for Planning and Conservation
IPCC	International Panel on Climate Change

K

KOP	key observation point
kV	kilovolt
kV/m	kilovolt per meter

L

LACPH	Los Angeles County Public Health
Ldn	day night sound level
LDSP	light-duty steel pole
LED	light-emitting diode
Leq	equivalent sound level
Lmax	maximum sound level
Lmin	minimum sound level
LNG	liquefied natural gas
LRA	local responsibility area
LSM	less than significant with mitigation
LST	lattice steel tower
LTO	landing take off
LTS	less than significant
LUST	leaking underground storage tank

M

MAIFI	average frequency of momentary outages
MBTA	Migratory Bird Treaty Act
mG	milligauss
mgd	million gallons per day
MM	mitigation measure
MMT	million metric tons
MO	momentary outages
MRV	minor route variation
MRZ	mineral resource zone
MS4	municipal separate sanitary sewer system
MSA	metropolitan statistical area

msl	mean sea level
MT	metric ton
MUTCD	California Manual on Uniform Traffic Control Devices
MVA	megavolt amperes
MW	megawatt
MWh	megawatt-hour

N

NAAs	nonattainment areas
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NASA	National Aeronautics and Space Administration
NASS	National Agricultural Statistics Service
NCCP	natural community conservation plan
NEET West	NextEra Energy Transmission West, LLC
NEHRP	National Earthquake Hazards Reduction Program
NERC	National Electric Reliability Commission
NESC	National Electric Safety Code
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NHTSA	National Highway Traffic Safety Administration
NI	no impact
NIEHS	National Institute of Environmental Health Sciences
NIST	National Institute of Standards and Technology
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
N_2O	nitrogen oxide
NO_X	nitrogen oxides
NOA	notice of availability
NOA	naturally occurring asbestos
NOAA	National Oceanic and Atmospheric Administration
NOP	notice of preparation
NPD	Noise-Power-Distance
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	USDA Natural Resources Conservation Service
NSF	National Science Foundation

O

O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration
OPGW	optical ground wire
OPR	Governor's Office of Planning and Research

P

PEA	Proponent's Environmental Assessment
PERP	Portable Equipment Registration Program
PFYC	potential fossil yield classifications
PG&E	Pacific Gas and Electric Company
PLR	Power Line Route
PM	particulate matter
PM_{10}	PM with aerodynamic radius of 10 micrometers or less
$PM_{2.5}$	PM with aerodynamic radius of 2.5 micrometers or less
POS	parks and open space
POTT	permissive overreaching transfer tip
ppm	parts per million
PPE	personal protective equipment
PRC	Public Resource Code
PRJUSD	Paso Robles Joint Unified School District
Proposed Project	proposed Estrella Substation and Paso Robles Area Reinforcement Project
PRTR	paleontological resources technical report
PRWWTP	Paso Robles Wastewater Treatment Plant
PSHA	probabilistic seismic hazards assessment
PVC	polyvinyl chloride

R

RA	Residential Agriculture (zone)
RCO	regenerative catalytic oxidize
RCRA	Resource Conservation and Recovery Act
RFO	request for offer
RMP	risk management plan
ROG	reactive organic gas
RPS	California Renewables Portfolio Standard
RTA	Regional Transportation Authority
RWQCB	Regional Water Quality Control Board

S

SAFE	Safer Affordable Fuel-Efficient
SB	Senate Bill
SCADA	supervisory control and data acquisition
SE	Substation Expansion
SED	safety enforcement division
SEL	Schweitzer Engineering Laboratories
SF_6	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SIP	state implementation plan
SLOCAPCD	San Luis Obispo County Air Pollution Control District
SLOCOG	San Luis Obispo Council of Governments
SMARA	Surface Mining and Reclamation Act of 1975
SO_2	sulfur dioxide
SO	sustained outages
SPCC	spill prevention, control, and countermeasure
SR	state route
SRA	state fire responsibility area
SS	Substation Siting
SU	significant and unavoidable
SWCA	SWCA Environmental Consultants
SWMP	stormwater management plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board

T

TAC	toxic air contaminants
TCP	traditional cultural property
TCR	tribal cultural resource
TMA	transportation management area
TMDL	total maximum daily loads
TRI	Toxic Release Inventory
TSP	tubular steel pole
TUSD	Templeton Unified School District

U

USACE	U.S. Army Corps of Engineers
USC	U.S. Code

USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
US-LT RCD	Upper Salinas Las Tablas Resource Conservation District
USGS	U.S. Geological Survey
UST	Underground storage tank
UV	ultraviolet
UVLS	under-voltage load shedding

V

VdB	vibration velocity in decibels
VHFHSZ	very high fire hazard severity zone
VMP	vegetation management program
VMT	vehicle miles traveled
VOC	volatile organic compound

W

WDR	waste discharge requirement
WEAP	worker environmental awareness program
WHO	World Health Organization
WMP	wildfire mitigation plan
WSD	wildfire safety division

SYMBOLS

°F	Fahrenheit

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Executive Summary

The California Public Utilities Commission (CPUC) has prepared this Draft Environmental Impact Report (DEIR) to provide the public, responsible agencies, and trustee agencies with information about the potential environmental effects of the Estrella Substation and Paso Robles Area Reinforcement Project (Proposed Project), proposed by Horizon West Transmission, LLC (HWT) (formerly NextEra Energy Transmission West, LLC [NEET West]) and Pacific Gas and Electric Company (PG&E) (collectively referred to as the "Applicants"). The Proposed Project would involve construction and operation of a new 230 kilovolt (kV)/70 kV substation and a new approximately 7-mile-long 70 kV power line, and replacement/reconductoring of approximately 3 miles of an existing 70 kV power line.

The Proposed Project also would provide for the future establishment of three new distribution feeders from the proposed Estrella Substation, including construction of roughly 1.7 miles of new distribution line and additional reconductoring activities. All of these facilities would be located in unincorporated San Luis Obispo County and within the City of Paso Robles. The Proposed Project is intended to address identified deficiencies in the electrical grid system in the Paso Robles area and to accommodate projected new growth. This DEIR was prepared in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended) and the CEQA Guidelines (California Code of Regulations [CCR] title 14, Section 15000 et seq.).

ES.1 Proposed Project Background, Purpose and Objectives

The Proposed Project is needed to provide transmission system redundancy and power support in the event of outages (i.e., contingencies), as well as increased distribution capacity to accommodate forecasted electrical load growth in the Paso Robles area. The Proposed Project was identified in the California Independent System Operator's (CAISO) 2013-2014 Transmission Plan as a project needed to mitigate thermal overloads and voltage concerns in the Los Padres 70 kV system (specifically in the San Miguel, Paso Robles, Templeton, Atascadero, Cayucos, and San Luis Obispo areas) (CAISO 2014). CAISO modeling determined that thermal overloads and very low voltage conditions could occur in this system following either one of two Category B contingencies: loss of the Templeton 230 kV/70 kV #1 Transformer Bank or loss of the Paso Robles-Templeton 70 kV power line.

Essentially, if either the #1 Transformer Bank at the Templeton Substation or the 70 kV power line connecting the Paso Robles and Templeton Substations were to fail for any reason (e.g., vehicular impact to existing infrastructure, vegetation and/or storm damage, wildlife damage to existing electrical connections, and/or mechanical failure), this could result in dangerous overloading and low voltage conditions in the regional system. This is both due to high load (i.e., electrical service demand) in the Paso Robles area relative to substation capacity, as well as lack of redundancy in the system. The Proposed Project also would address existing undesirable conditions and projected load growth in the distribution system in the Paso Robles area, which is characterized by very long distribution feeders. Constructing the new Estrella Substation at the proposed location would allow the Applicants to easily extend new feeders to the areas of anticipated growth in the City of Paso Robles (e.g., Golden Hill Industrial Park, south of Paso

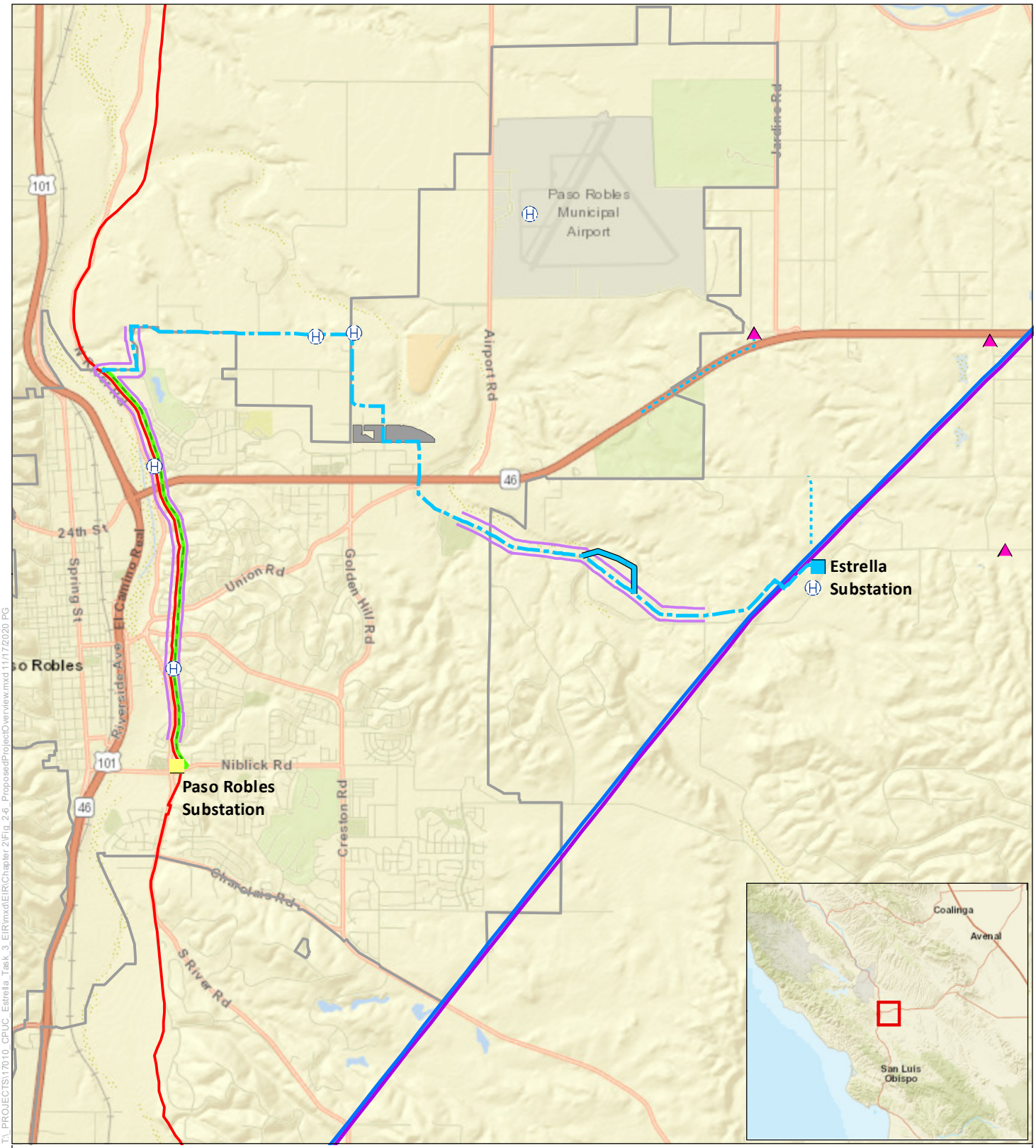
Robles Municipal Airport, and south of State Route [SR] 46), as well as split in half some of the long feeders emanating from Templeton Substation.

Based on its understanding of the fundamental underlying purpose of the Proposed Project and using its authority as the lead agency under CEQA, the CPUC has identified the following objectives for the Proposed Project:

- **Transmission Objective:** Mitigate thermal overload and low voltage concerns in the Los Padres 70 kV system during Category B contingency scenarios, as identified by the CAISO in its 2013-2014 Transmission Plan.
- **Distribution Objective:** Accommodate expected future increased electric distribution demand in the Paso Robles DPA, particularly in the anticipated growth areas in northeast Paso Robles.

ES.2 Project Location

The Proposed Project would be located within the northern portion of San Luis Obispo County, California, including within portions of the City of Paso Robles, as shown in Figure ES-1. Land uses surrounding the Proposed Project area south of SR 46 are a mixture of intensive agriculture, vineyards, and rural residential development. North of SR 46 and within the City of Paso Robles limits, land uses consist of light industrial development, urban and residential development, and wineries/vineyards. Topography in the vicinity of the Proposed Project is generally rolling hills, with existing elevations ranging from approximately 920 feet to 960 feet above mean sea level.



Source: ESRI 2020, NEET West and PG&E 2017

N

0 0.25 0.5 Miles

Horizon WATER and ENVIRONMENT

Proposed Project

- Estrella Substation
- 70kV Route
- New Distribution Line Segments
- 70 kV Minor Route Variation 1
- Reconductoring Segment
- Distribution Underbuild
- Power Line Staging Areas
- Helicopter Landing Zones
- Additional 21/12 kV Pad-Mounted Transformer
- Paso Robles city limits

Existing Infastructure

- Existing 500 kV Transmission Line
- Existing 230 kV Transmission Line
- Existing 70 kV Power Line
- Existing Substations

Note: Eight miles of distribution line segments would be reconductored in various locations to integrate the proposed substation. PG&E did no specify each location.

Figure ES-1
Proposed Project
Location and Overview

Estrella Substation and Paso Robles Area Reinforcement Project

ES.3 Proposed Project, Reasonably Foreseeable Distribution Components, and Ultimate Substation Buildout

The Proposed Project would be comprised of three main components: Estrella Substation, the new 70 kV power line segment, and the 70 kV power line reconductoring segment. Each of these main components is described below. Additionally, the reasonably foreseeable distribution components and ultimate buildout of the Estrella Substation that would be facilitated through completion of the Proposed Project are described below.

Estrella Substation

The proposed Estrella Substation would be comprised of two separate and distinct substations on an approximately 15-acre site. One 230 kV substation would be constructed and operated by HWT and one 70 kV substation would be constructed and operated by PG&E. Access to the Estrella Substation site would be off of Union Road, along a new private access road.

Electrical equipment at the 230 kV substation would be located within a fenced area and would include breakers, breaker-and-a-half bays, operating buses, transformers, air break switches, insulated circuit breakers, dead-end steel structures, and lightning surge arresters. The 230 kV substation would also include a protection and control enclosure which would have redundant air conditioning units installed to protect electronic components. In addition to electrical equipment, the 230 kV substation would include a telecommunications and distribution feeder line for electrical service; a secondary containment structure for transformer oil spill control; one spare sulfur hexafluoride (SF_6) filler tank; a graveled internal access road, and perimeter security fencing. The 230 kV substation also would be connected to the existing 230 kV transmission line adjacent to the proposed Estrella Substation site via a new interconnection line composed of six lattice steel towers (LSTs).

The 70 kV substation would be located immediately adjacent to the 230 kV substation within the same 15-acre site. Electrical equipment at the 70 kV substation would be located within a fenced area and would include aluminum buses, transformers, air break switches, circuit breakers, dead-end steel structures, and lightning surge arrestors. The 70 kV substation would also include a protection and control enclosure which would have an air conditioning unit installed to protect electronic components. In addition to the electrical equipment, the 70 kV substation would include a battery enclosure, a paved internal access road, a concrete skimmer/weir, and perimeter security fencing.

New 70 kV Power Line Segment

The new 70 kV power line segment would consist of approximately 7 miles of double-circuit 70 kV power line on a combination of two types of structures: tubular steel poles (TSPs) and light-duty steel poles (LDSPs). Power line structures would vary in height depending on their location and purpose, but typically would range between 80 to 90 feet. TSPs would be utilized for the portion of the line that would be installed within the existing PG&E transmission corridor. In general, the TSPs would be installed adjacent to existing 500 kV transmission line towers, utilizing an average span length of approximately 650 feet. Each TSP would be installed on one individual concrete pier foundation.

The remainder of the new 70 kV power line segment would utilize both TSPs and LDSPs. These structures would 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 would be installed generally in locations where the alignment changes direction. The route would utilize an average span length of approximately 300 to 500 feet.

Reconductoring Segment

Reconductoring and pole replacement would occur on approximately 3 miles of single-circuit 70 kV power line using a combination of TSPs and LDSPs. Power line structures would vary in height depending on their location and purpose, but typically would range between 80 to 90 feet. LDSPs would typically be used in locations where the alignment is generally straight, and either guyed LDSPs or TSPs would be used in locations where the alignment changes direction or where distribution tap spans are supported on line structures.

Anchors and guy wires would be attached to LDSPs and/or wood poles in locations where additional stability is required to support the conductor tension. The new replacement poles would typically be installed within 10 feet of the existing poles, which would result in a typical pole span length of approximately 300 feet.

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

As shown on Figure ES-1, the reasonably foreseeable distribution components would include two new distribution line segments (totaling approximately 1.7 miles in length) and three new pad-mounted 21/12 kV transformers, and a new distribution (70/21 kV) transformer within Estrella Substation. Additionally, the reasonably foreseeable distribution components would include reconductoring of approximately 8 miles of existing distribution lines, which would be required to establish the new Estrella distribution feeders. Given that new overhead distribution lines are typically supported by 18 poles per mile, the 1.7 miles of reasonably foreseeable new distribution line would require about 31 new wood poles. New wood poles would likely be direct-bury poles (not requiring a foundation) and would require about 3 square feet of permanent ground disturbance per pole. Reasonably foreseeable new distribution poles would average 45 feet tall.

In addition to the reasonably foreseeable distribution components, the Estrella Substation would include space for additional facilities to serve potential distribution and transmission needs in the future. Ultimate buildout of the Estrella Substation could include an additional 230 kV interconnection, a second 230/70 kV transformer, three additional 70/21 kV transformers, and associated equipment (e.g., breakers, switches). The ultimate substation buildout would support additional distribution and power lines emanating from the Estrella Substation; however, the specific routes and lengths of these lines are not known at this time and are not evaluated in the DEIR.

ES.4 Proposed Project Construction Processes, Schedule, Workforce, and Water Use

Proposed Project construction activities would include site preparation, excavation, installation of equipment and structures, and restoration. Construction of the Estrella Substation would require a survey marking 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. Earthwork activities for the substation are anticipated to result in approximately 50,000 cubic yards of cut and fill, which would be balanced on the site to the extent feasible. Construction of the new and reconductored 70 kV power line segments would require clearing of work areas at the location of each structure and minor grading (if necessary), excavation of foundations, installation of structures (crossing structures, TSPs, LDSPs, conductor), and removal of existing structures (i.e., distribution and power line poles).

Proposed Project construction would require establishment of temporary staging areas, structure work areas, conductor pull and tension sites, and helicopter landing areas. Construction of temporary access roads also would be required. The range of site preparation for these areas would include site leveling and grading, fencing, placement of gravel, vegetation removal, tree trimming/removal and/or vine removal, and placement of temporary rock bedding. All areas temporarily disturbed by the Project would be restored to pre-existing conditions following construction to the extent practicable.

Overall, Proposed Project construction is anticipated to take 18 months. Construction would typically occur 6 days per week (Monday through Saturday) throughout the duration of construction, with daily work hours occurring between 7:00 a.m. and 5:30 p.m. Occasionally, work may occur during evening or nighttime hours for time-sensitive and non-noise intensive activities. Different phases of the construction process would require varying numbers of construction personnel, but on a typical workday about 12 to 15 construction crewmembers would be working at Estrella Substation, while about 10 to 15 construction crewmembers would be working on the 70 kV power line. A larger work team (up to 30 workers) may be required to complete certain work tasks (e.g., conductor pulling).

Construction of the substation and power line would require approximately 10.3 million gallons of water during the construction period (about 32 acre-feet). About 25 percent of the total water used would be for construction activities (e.g., concrete mixing), with the remaining 75 percent used for dust control during the construction period. Daily water use during the construction period would vary based on the construction phase, but it is estimated that the average water use per day would be about 68,600 gallons. Portable restroom facilities would be provided at the site for worker use during the construction period.

Construction of the reasonably foreseeable new distribution line segments would follow a similar process to the 70 kV power line construction but on a smaller scale. No site preparation or grading would be required for the distribution line construction and reconductoring. Distribution poles would be direct-embedded and, once installed, conductors would be strung using reel trailers pulled behind trucks that park in flat areas. Construction of the reasonably foreseeable distribution components, including work within the 70 kV substation to allow for establishment of the new Estrella feeders, would take approximately 19 weeks.

ES.5 Alternatives Considered

In accordance with the requirements of CEQA, the DEIR considered a range of feasible alternatives to the Proposed Project. The alternatives could feasibly obtain most of the project objectives while reducing one or more of the Proposed Project's significant effects. The following alternatives have been evaluated in this DEIR:

- No Project Alternative
- Alternative Substation Siting (SS)-1: Bonel Ranch Substation Site
- Alternative Power Line Route (PLR)-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-3: Strategic Undergrounding, Option 1 & 2
- Alternative Substation Expansion (SE)-1A: Templeton Substation Expansion – 230/70 kV Substation
- Alternative SE-PLR-2: Templeton-Paso South River Road Route
- Alternative Battery Storage (BS)-2: Battery Storage to Address Distribution Objective
- Alternative BS-3: Behind-the-Meter Solar and Battery Storage

Several other alternatives were also considered, but ultimately dismissed from further analysis for one or more of the following reasons: (1) the alternative was infeasible; (2) the alternative failed to meet the basic project objectives; or (3) the alternative would not avoid or substantially reduce one or more significant impacts of the Proposed Project. Alternatives are described in detail in Chapter 3, *Alternatives Description*, and shown in Figure ES-2.

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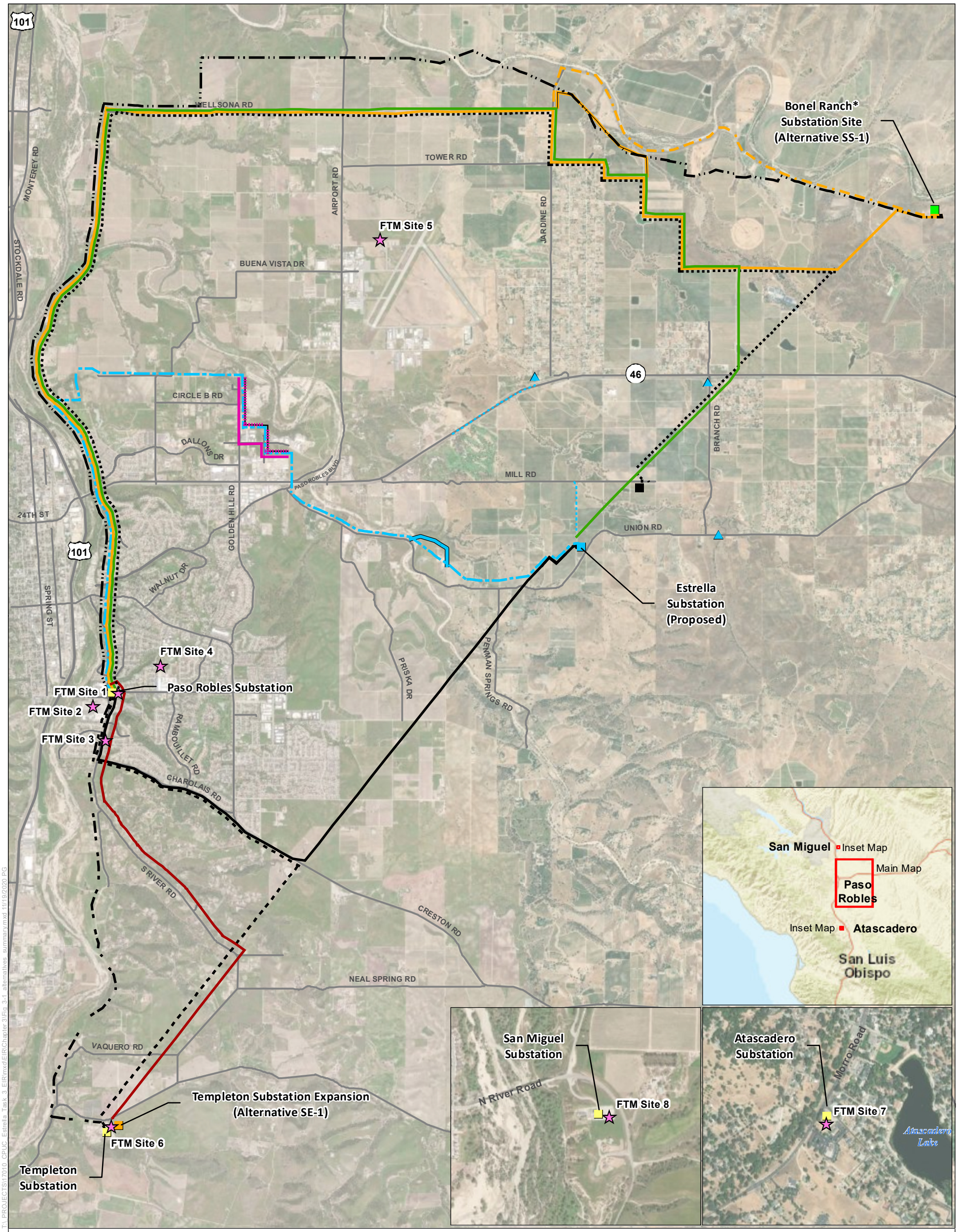

Proposed Project

- Estrella Substation
- Proposed Project 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives Carried Forward for Full Analysis

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Other Project Alternatives Considered

- Alternative PLR-1D: Estrella Route to Bonel Ranch, Option #2
- Alternative SS-2: Mill Road West Substation Site
- Alternative PLR-1B: Estrella Route to Mill Road West
- Alternative PLR-2: Creston Route (Variations not shown; not carried forward)
- Alternative SE-PLR-1:Templeton-Paso 70kV Route (Existing)
- Alternative SE-PLR-3: Templeton-Paso Creston Route

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure ES-2
Alternatives
Summary Map

Note: The route variations shown are offset in order to display the alignments of the alternative routes that may overlap in places.

* formerly McDonald Ranch

Source: NEET West and PG&E 2017

Estrella Substation and
Paso Robles Area Reinforcement Project

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No Project Alternative

Under the No Project Alternative, HWT and PG&E would not construct or operate the substation or new and reconductored 70 kV power line segments. The No Project Alternative would not provide transmission system redundancy, increased distribution capacity or improved electrical service reliability, and would not meet any of the project objectives.

Alternative SS-1: Bonel Ranch Substation Site

The Bonel Ranch Substation Site is situated on an approximately 72-acre parcel, of which the 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 Bonel Ranch site is located within the County of San Luis Obispo North County Planning Area, El Pomar-Estrella Sub Area, and is currently used to grow alfalfa. If the substation were constructed at the Bonel Ranch Substation Site, it would be connected to the existing Paso Robles Substation via a 70 kV power line following Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1. Electrical components, equipment, and site infrastructure included in a substation located at this alternative site would be essentially the same as for the proposed Estrella Substation.

Alternative PLR-1A: Estrella Route to Estrella Substation

Alternative PLR-1A is an alternative route for the 70 kV power line that would connect the proposed Estrella Substation to the Paso Robles Substation. This route would allow for the power line to pass north of the Paso Robles Municipal Airport in a low-density area. Land uses surrounding the Estrella Route primarily consist of urban and rural residential developments and agricultural areas dominated by vineyards. Starting at the Estrella Substation, Alternative PLR-1A would follow the existing 230/500 kV transmission corridor northeast until veering north at roughly the intersection of the transmission corridor with SR 46. The route would then zig zag in a northwest direction through agricultural lands until meeting Wellsona Road. At this point, the route would follow Wellsona Road due west until meeting the existing San Miguel-Paso Robles 70 kV Transmission Line. This existing line would then be reconductored south to the existing Paso Robles Substation. Conductors on the new 70 kV power line and the reconductoring segment for Alterative PLR-1A would be supported by a combination of the same types of structures and conductor configuration as the Proposed Project route.

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C is the 70 kV power line route that would be used to connect a substation at the Bonel Ranch Substation Site (Alternative SS-1) to the Paso Robles Substation. This route would be largely similar to Alternative PLR-1A but would have a different starting point at the Bonel Ranch site rather than the proposed Estrella Substation. Starting at the Bonel Ranch Substation Site, the Alternative PLR-1C route would follow Estrella Road west before meeting the existing 230/500 kV transmission corridor. The route would then turn and follow the existing 230/500 kV transmission corridor southwest for approximately 0.75-mile before veering west, crossing a riparian/drainage area, and then joining the Alternative PLR-1A route that zig zags

northwest through agricultural lands until meeting Wellsona Road. The remainder of the route is identical to Alternative PLR-1A.

Alternative PLR-3: Strategic Undergrounding, Option 1 & 2

Alternative PLR-3: Strategic Undergrounding would involve undergrounding the portion of the Proposed Project's new 70 kV power line that passes through the Golden Hill Road area north of SR 46, which has the greatest potential for aesthetic and other environmental impacts. Two undergrounding routes are under consideration: Option 1 would begin where the proposed power line alignment turns west to parallel Wisteria Lane, would turn north along Germaine Way, and then turn west to follow Wisteria Lane. Where Wisteria Lane meets Golden Hill Road, Option 1 turns north following Golden Hill Road and continues north past Lake Place until the point at which the proposed 70 kV alignment turns to the west. Option 2 would be similar to Option 1 except that instead of turning west and following Wisteria Lane, it would follow the proposed 70 kV power line alignment behind San Antonio Winery. After reaching Golden Hill Road, Option 2 would be identical to Option 1. For both Option 1 and 2, two riser poles and a transition station would be installed at each end of the underground alignment.

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

Alternative SE-1A: Templeton Substation Expansion would involve expansion of the existing Templeton Substation to include new facilities to support an additional 70 kV double-circuit power line from Templeton Substation to Paso Robles and San Miguel substations. This alternative would entail installing a new 230/70 kV substation on an approximately 19-acre site adjacent to the existing Templeton Substation. This site currently is used for agricultural purposes and would be accessed from El Pomar Drive, on a new main private access road. The new substation would include essentially the same components/equipment as the proposed Estrella Substation.

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Alternative SE-PLR-2: Templeton–Paso South River Road Route is the 70 kV power line route that would be used to connect the expanded Templeton Substation (Alternative SE-1A) to Paso Robles Substation. Alternative SE-PLR-2 would always be constructed in tandem with Alternative SE-1A. Starting at the Templeton Substation Expansion site, the Templeton-Paso South River Road Route follows the existing 230/500 kV transmission line corridor northeasterly for approximately 2 miles to where it intersects with South River Road. At this point, the route would veer to the northwest and follow South River Road, eventually paralleling the existing Templeton–Paso single-circuit 70 kV power line until reaching the city limits of Paso Robles, ultimately terminating just north of Paso Robles Substation. The total length of the Templeton-Paso South River Route from Templeton Substation to Paso Robles Substation is approximately 5.2 miles and would not require the 3-mile-long reconductoring segment described for the Proposed Project. The new 70 kV power line under Alternative SE-PLR-2 would be comprised of a combination of TSPs and LDSPs.

Alternative BS-2: Battery Storage to Address Distribution Objective

Alternative BS-2 would involve installation of front-of-the-meter (FTM) battery energy storage systems (BESSs) connected to the distribution system to defer the need for additional distribution capacity in the Paso Robles DPA, in accordance with the Distribution Objective of the Proposed Project. BESS facilities would function to "shave" peak loads during periods when energy use along these feeders is high (i.e., reduce peak loads during the summer) to relieve pressure on the area substations and feeders. BESSs would likely operate on a daily cycle where they would discharge during hours of peak demand and charge during hours of lower demand (e.g., nighttime). A number of potentially suitable sites for FTM BESSs in the vicinity of Paso Robles Substation and at other area substations are identified and considered for illustrative purposes in the DEIR. The example FTM sites are shown in Figure ES-2.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

Behind-the-meter (BTM) solar and battery storage (i.e., "BTM resources") would be metered at the building-level and could be owned and/or operated by either the building owner or a third party provider. Adoption of BTM resources also could reduce loading on circuits within the Paso Robles DPA and thereby avoid potential future forecasted substation overloads. Because it is unknown which specific customers will opt into the BTM resources program and install BTM resources on their property, the specific locations of activities under Alternative BS-3 are unknown. In general, BESSs would be anticipated to be installed within existing commercial and industrial buildings, and within existing residential homes or apartment complexes. Both Alternatives BS-2 and BS-3 could be developed through the CPUC's Distribution Infrastructure Deferral Framework (DIDF) pursuant to the Distribution Resources Plan proceeding (R.14-08-013).

ES.6 Public Involvement

Scoping Comment Period

A notice of preparation (NOP) for the Proposed Project was prepared pursuant to the CEQA Guidelines (Section 15082) and circulated to the Office of Planning and Research's State CEQA Clearinghouse on July 30, 2018. Subsequently, a revised NOP was circulated on August 1, 2018. The scoping period continued for 30 days and concluded on August 31, 2018, although several comment letters were accepted beyond this date. The NOP presented general background information on the Proposed Project, the scoping process, the environmental issues to be addressed in the environmental impact report (EIR), and the anticipated uses of the EIR. The NOP was posted online, and more than 200 hard copies of the NOP were distributed by mail to a broad range of stakeholders including state, federal, and local regulatory agencies and jurisdictions, non-profit organizations, and property owners in the vicinity of the Proposed Project.

To provide the public, as well as responsible and trustee agencies, an opportunity to ask questions and submit comments on the scope of the EIR, a public scoping meeting was held during the scoping period. The meeting was held on Tuesday, August 7, 2018, from 6 p.m. to

8 p.m. at the Winifred Pifer Elementary School located at 1350 Creston Road in Paso Robles. The meeting format consisted of a presentation by the CPUC and consultant staff followed by opportunities for attendees to ask questions and submit comments. Written comment cards were provided to all meeting attendees, as well as information on how to access project documents and participate in the public review process going forward. A tablet showing an interactive map of the Proposed Project and potential alternatives also was available for viewing during the scoping meeting. A total of 50 individuals signed in to the meeting.

During the scoping period, the CPUC received 43 comment letters, 37 of which were from members of the general public. Letters were received from five public agencies, including the City of Paso Robles, County of San Luis Obispo, California Department of Conservation, California Native American Heritage Commission, and the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources. Additionally, the CPUC received a comment letter from the Xolon Salinan tribe. Comments received during scoping covered a wide range of topics, as detailed in the Proposed Project's Scoping Report.

Alternatives Screening Report

To identify a reasonable range of potentially feasible alternatives for consideration in the DEIR, an Alternatives Screening Report (ASR) was prepared. The alternatives described in Section ES.5 are the outcome of the ASR process. To provide an opportunity for the public to review and comment on the CPUC's preliminary alternatives screening process and results, a Draft ASR was circulated for public review from March 28, 2019 to May 10, 2019. The CPUC received a large number of comments during the Draft ASR review period, including support and opposition for various alternatives and concerns regarding environmental impacts associated with different alternatives. The comments on the Draft ASR were considered by the CPUC during preparation of the Final ASR, which is included as Appendix B to this DEIR.

An analysis of BTM solar and battery storage adoption propensity (BTM Report) was also prepared and circulated to the public as a supplement to the original Draft ASR. A public notice regarding the availability of the BTM Report on the Project website was distributed on January 31, 2020. The BTM Report is included as Appendix B to the Final ASR.

DEIR Public Comment Period

The CPUC is circulating this DEIR for a 55-day public review and comment period, as indicated in the notice of availability (NOA). The CPUC will host two virtual public meetings during this period. The purpose of public circulation and the public meetings is to provide agencies and interested individuals with opportunities to comment on or express concerns regarding the contents of this DEIR.

Submittal of Written Comments

Written comments concerning this DEIR can be submitted any time during the DEIR public review period. All comments must be received by the deadline indicated in the NOA, directed to the name and address listed below:

Horizon Water and Environment
P.O. Box 2727, Oakland, CA 94602
266 Grand Avenue, Suite 210
Oakland, CA 94610
estrellaproject@horizonh2o.com

Submittal of written comments via e-mail (Microsoft Word or PDF format) would be greatly appreciated. Written comments received in response to this DEIR during the public review period will be addressed in a response-to-comments section of the Final EIR.

All documents mentioned herein or related to the Proposed Project can be reviewed online at the following website:

www.cpuc.ca.gov/environment/info/horizonh2o/estrella/index.html

ES.7 Areas of Known Controversy and Issues to be Resolved

CEQA Guidelines Section 15123(b) requires that an Executive Summary identify "areas of controversy known to a lead agency including issues raised by agencies and the public." To date, a number of issues have been raised regarding the Proposed Project which may be considered controversial, including the following:

- Potential for overhead power lines to result in various environmental and societal impacts, including aesthetic impacts, fire risk, hazards associated with electromagnetic fields (EMFs), decreased property values, noise impacts, and interference with helicopters used in firefighting.
- Concerns that the underlying need for the Proposed Project is not well-founded.
- The Proposed Project and various alternatives are supported or opposed by different stakeholders in the community; however, significant public opposition to the Alternative SE-PLR-2: Templeton-Paso South River Road Route was noted.

ES.8 Significant Impacts

This DEIR evaluates the potential for the Proposed Project, reasonably foreseeable distribution components, and alternatives to affect the following resource topics:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Traffic and Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Table ES-1 at the end of this Executive Summary summarizes the impacts analysis and significance determinations for the Proposed Project, while Table ES-2 summarizes the impacts and significance determinations for the reasonably foreseeable distribution components and alternatives. Significant and unavoidable impacts were identified for the Proposed Project for aesthetics, agriculture and forestry resources, air quality, and noise (see below). Other potentially significant effects identified for the Proposed Project would be reduced to less than significant levels with implementation of applicant proposed measures (APMs) and/or mitigation measures. Several significant and unavoidable impacts were identified for various alternatives, as indicated in Table ES-2 and described below. Sections 4.1 through 4.20 of this DEIR address each of these environmental resource topics and the impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives in detail.

Section 15126.2(b) of the CEQA Guidelines requires an EIR to describe any significant impacts that cannot be mitigated to a less-than-significant level. All of the impacts associated with the Proposed Project, reasonably foreseeable distribution components and ultimate substation buildout, and alternatives would be reduced to a less-than-significant level through the implementation of identified mitigation measures, with the exception of the impacts discussed below. The following impacts have been identified as significant and unavoidable:

- Impact AES-1 (Significance Criterion A): Have a substantial effect on a scenic vista *(Alternative SE-PLR-2)*

- Impact AES-3 (Significance Criterion C): In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? *(Proposed Project; Alternative SE-PLR-2)*

- Impact CUM-1: Cumulative Effects on Aesthetics *(Proposed Project; Alternative SE-PLR-2)*

- Impact AGR-1 (Significance Criterion A): Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use. *(Proposed Project; Alternatives PLR-1A, PLR-1C, and SE-PLR-2)*

- Impact AGR-2 (Significance Criterion B): Conflict with existing zoning for agricultural use, or a Williamson Act contract. (*Proposed Project*)

- Impact CUM-2: Cumulative Effects on Agriculture and Forestry Resources *(Proposed Project; Alternatives PLR-1A, PLR-1C, and SE-PLR-2)*

- Impact AQ-2 (Significance Criterion B): Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. *(Proposed Project; Alternatives SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, and SE-PLR-2)*

- Impact HAZ-6 (Significance Criterion F): Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (*No Project Alternative*)

- Impact NOISE-1 (Significance Criterion A): Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or in the applicable standards of other agencies. (*Proposed Project; Alternatives SS-1, PLR-1A, PLR-1C, PLR-3, and SE-PLR-2*)

- Impact WF-1 (Significance Criterion A): Substantially impair an adopted emergency response plan or emergency evacuation plan. (*No Project Alternative*)

ES.9 Draft EIR Environmentally Superior Alternative

Due to the nature of the Proposed Project, which includes a substation and power line (and provides space for reasonably foreseeable distribution components and ultimate substation buildout), alternatives were evaluated individually (e.g., substation siting or power line route alternatives) throughout the DEIR. But practically, alternatives would be implemented in tandem with one or more other alternatives. In order to meet the Transmission Objective a substation and power line would need to be included in any alternative combination, but the Distribution Objective could be met either through traditional infrastructure (e.g., reasonably foreseeable distribution components) or through implementation of one or more of the battery storage alternatives (Alternative BS-2 and BS-3).

The environmental analysis revealed a number of environmental tradeoffs involved with all of the alternatives or alternative combinations and the Proposed Project. The No Project Alternative is not considered environmentally superior because it would leave the Paso Robles 70 kV system vulnerable to the Category B contingencies described in Section ES.1, “Proposed Project Background, Purpose and Objectives,” which could lead to load shedding and blackouts. If this were to occur during a wildfire, for example, it could hinder emergency response and evacuation procedures, and cause other adverse effects.

Taking into account all of the relevant factors, Alternative Combination #2 (which would include Estrella Substation, Alternative PLR-1A, Alternative BS-2, and Alternative BS-3) offers the most advantages from an environmental perspective. Specifically, this combination would route the new 70 kV power line north of the City of Paso Robles through a more rural, agricultural area of San Luis Obispo County. Thus, it would reduce the significant aesthetic impacts of the Proposed Project's 70 kV power line. In particular, the Alternative PLR-1A route would avoid the impacts on the Golden Hill Road area, including the Cava Robles RV Resort, San Antonio Winery, and residents at the Circle B Homeowners' Association. Although the northern Alternative PLR-1A route is longer (6.5 miles longer) than the Proposed Project's 70 kV power line route, resulting in an increase in some construction-related effects, it would avoid the sensitive habitat (i.e., blue oak woodland) located along and north of Golden Hill Road, including the area where there is a known golden eagle nest nearby.

Depending on the specific sizes of FTM BESSs under Alternative BS-2 (this would be determined by future load growth in the Paso Robles area), utilizing FTM battery storage to address future distribution demand would likely reduce environmental impacts overall compared to buildout of the reasonably foreseeable distribution components. Even better from an environmental perspective would be to pursue BTM resources adoption under Alternative BS-3. Considering that these smaller-scale facilities would be placed largely within or on existing buildings, they would likely have relatively minimal environmental impacts overall.

Overall, Alternative Combination #2 is considered the most advantageous option and is identified as the Environmental Superior Alternative for this Draft EIR. The components included in the Draft EIR's Environmentally Superior Alternative are shown in Figure ES-3.

Example FTM Site 5
Example FTM Site 4
Example FTM Site 1
Example FTM Site 2
Example FTM Site 3
Example FTM Site 6
Example FTM Site 8
Example FTM Site 7
Paso Robles Substation
Templeton Substation
San Miguel Substation
Atascadero Substation
Estrella Substation (Proposed)
Paso Robles Municipal Airport
Links Golf Course of Paso Robles
Paso Robles Horse Park
River Oaks Golf Course
Cuesta College-North County
Hunter Ranch Golf Course
Barney Schwartz Park
Sherwood Park
Atascadero Lake Park
Wellsona Rd
Tower Rd
Adobe Rd
Airport Rd
Beacon Rd
Dry Creek Rd
Jack Oconnell Hwy
Circle B Rd
Mill Rd
Union Rd
Creston Rd
Linne Rd
Niblick Rd
Oak Hill Rd
Stoney Creek Rd
Meadowlark Rd
Barley Grain Rd
S River Rd
Vaquero Dr
Neal Springs Rd
Burnt Rock Way
Estrella River
Paso Robles
Atascadero
San Luis Obispo
2859 ft
Inset Map
Main Map
Source: ESRI 2018, PG&E 2019, SCWA 2017
N
0
1
Miles
Existing Infrastructure
Existing Substations
Existing 500 kV Transmission Line
Existing 230 kV Transmission Line
Existing 70 kV Power Line
Alternative Combination #2
Alternative PLR-1A: Estrella Route to Estrella Substation
Estrella Substation
Alternative BS-2: Battery Storage to Address the Distribution Objective (includes one or more of the potential front-of-the-meter [FTM] sites, for illustration purposes)
and/or
Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage*
*Alternative BS-3 will be available throughout the Proposed Project area. Because it is uknown which specific customers will opt into the BTM resources program, the specific locations of activities under Alternative BS-3 are unknown at this time.
Horizon WATER and ENVIRONMENT
Figure ES-3
Environmentally Superior Alternative (ESA)
Estrella Substation and Paso Robles Area Reinforcement Project
T:\PROJECTS\17010_CPUC_Estrella_Task_3_EIR\mxd\EIR\Fig_ES-3_EnvironmentallySuperiorAlternative_new.mxd 11/25/2020 PG

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Table ES-1. Summary of Impacts, Applicant Proposed Measures, and Mitigation Measures for the Proposed Project

Impact	APMs or MMs	Significance Determination
Aesthetics		
Impact AES-1: Have a substantial adverse effect on a scenic vista.	None	LTS
Impact AES-2: Substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.	None	LTS
Impact AES-3: In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.	APM AES-1: Substation Hardscaping MM AES-1: Use Landscaping, Design and Architectural Elements to Complement the Surrounding Visual Landscape	SU
Impact AES-4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	APM AES-2: Light and Glare Reduction MM AES-1: Use Landscaping, Design and Architectural Elements to Complement the Surrounding Visual Landscape	LSM
Agriculture and Forestry Resources		
Impact AG-1: Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use.	APM AG-1: Coordinate with Landowners, Farmers, and Ranchers Regarding Construction Activities MM AG-1: Provide Compensation for Loss of Agricultural Land	SU

Key: NI = No Impact; LTS = Less than Significant; LSM = Less than Significant with Mitigation; SU = Significant and Unavoidable

Impact	APMs or MMs	Significance Determination
	MM AG-2: Restore Agricultural Land Temporarily Impacted by Construction Activities	
Impact AG-2: Conflict with existing zoning for agricultural use or Williamson Act contract.	MM AG-1: Provide Compensation for Loss of Agricultural Land MM AG-2: Restore Agricultural Land Temporarily Impacted by Construction Activities	SU
Impact AG-3: Involve other changes in the existing environment that, because of their location or nature, could result in a conversion of Farmland to a nonagricultural use.	None	LTS
Air Quality		
Impact AQ-1: Potential to conflict with or obstruct implementation of the SLOCAPCD air quality plan.	None	LTS
Impact AQ-2: Potential to violate ROG, NOx, and PM_{10} significance thresholds and contribute substantially to an existing or projected air quality violation.	APM AIR-1: Minimize ROG, NO_x, and PM Combustion APM AIR-2: Air Quality Best Available Control Technology for Construction Equipment APM AIR-3: Minimize Fugitive Dust MM AQ-1: Prepare a Construction Activity Management Plan for Approval by SLOCAPCD	SU
Impact AQ-3: Potential to expose sensitive receptors to substantial pollutant concentrations.	None	LTS

Key: NI = No Impact; LTS = Less than Significant; LSM = Less than Significant with Mitigation; SU = Significant and Unavoidable

Impact	APMs or MMs	Significance Determination
Impact AQ-4: Potential to create objectionable odors affecting a substantial number of people.	None	LTS
Biological Resources		
Impact BIO-1: 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 CDFW or USFWS.	APM AIR-3: Minimize Fugitive Dust APM HAZ-1: Hazardous Substance Control and Emergency Response APM HYDRO-1: Avoidance of Sensitive Aquatic Features APM GEN-1: Prepare and Implement a Worker Environmental Awareness Program APM BIO-1: Conduct Pre-Construction Survey(s) for Special-Status Species and Sensitive Resource Areas APM BIO-2: Avoid Impacts on Nesting Birds APM BIO-3: Biological Monitoring APM BIO-4: Special-Status Species Protection APM BIO-5: Dead or Injured Special-Status Wildlife APM AES-2: Light and Glare Reduction MM BIO-1: Actions to Further Avoid and Minimize Impacts to Special-Status Species MM BIO-2: Compensate for Impacts to Special-Status Plant Species	LSM

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Impact	APMs or MMs	Significance Determination
	MM BIO-3: Minimize Impacts to Raptors and Other Avian Life from Transmission and Power Line Facilities	
Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS.	APM HAZ-1: Hazardous Substance Control and Emergency Response APM HYDRO-1: Avoidance of Sensitive Aquatic Features MM BIO-4: Develop and Implement a Restoration Plan for Blue Oak Woodland Habitat	LSM
Impact BIO-3: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	APM HAZ-1: Hazardous Substance Control and Emergency Response APM HYDRO-1: Avoidance of Sensitive Aquatic Features APM GEN-1: Prepare and Implement a Worker Environmental Awareness Program APM AIR-3: Minimize Fugitive Dust MM BIO-1: Actions to Further Avoid and Minimize Impacts to Special-Status Species	LSM
Impact BIO-4: 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.	APM BIO-1: Conduct Pre-Construction Survey(s) for Special-Status Species and Sensitive Resource Areas MM BIO-1: Actions to Further Avoid and Minimize Impacts to Special-Status Species	LTM
Impact BIO-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	APM AIR-3: Minimize Fugitive Dust	LSM

Key: NI = No Impact; LTS = Less than Significant; LSM = Less than Significant with Mitigation; SU = Significant and Unavoidable

Impact	APMs or MMs	Significance Determination
	APM HAZ-1: Hazardous Substance Control and Emergency Response APM HYDRO-1: Avoidance of Sensitive Aquatic Features APM GEN-1: Prepare and Implement a Worker Environmental Awareness Program APM BIO-1: Conduct Pre-Construction Survey(s) for Special-Status Species and Sensitive Resource Areas APM BIO-2: Avoid Impacts on Nesting Birds APM BIO-3: Biological Monitoring APM BIO-4: Special-Status Species Protection APM BIO-5: Dead or Injured Special-Status Wildlife APM AES-2: Light and Glare Reduction MM BIO-1: Actions to Further Avoid and Minimize Impacts to Special-Status Species MM BIO-4: Develop and Implement a Restoration Plan for Blue Oak Woodland Habitat	
Cultural Resources		
Impact CR-1: Cause a substantial adverse change in the significance of a historical and/or archaeological resource as defined in section 15064.5.	APM CUL-1: Retain a Qualified Cultural Principal Investigator APM CUL-2: Avoidance APM CUL-3: Inadvertent Discoveries APM CUL-5: Tribal Construction Monitoring	LSM

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Impact	APMs or MMs	Significance Determination
	APM CUL-6: Archaeological Construction Monitoring APM GEN-1: Prepare and Implement a Worker Environmental Awareness Program MM CR-1: CPUC Enhancements to APMs CUL-1, CUL-2, CUL-3, CUL-5, and CUL-6	
Impact CR-2: Disturb human remains, including those interred outside of dedicated cemeteries.	APM CUL-4: Discovery of Human Remains MM CR-2: Comply with the Legal Requirements of PRC 5097.98	LSM
Energy		
Impact ENR-1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	APM AIR-1: Minimize ROG, NOx, and PM Combustion APM AIR-2: Air Quality Best Available Control Technology for Construction Equipment. APM AIR-3: Minimize Fugitive Dust MM AQ-1: Prepare a Construction Activity Management Plan for Approval by SLOCAPCD (not required to reduce significant impacts to energy)	LTS
Impact ENR-2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	None	LTS
Geology, Soils, and Seismicity		
Impact GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death associated with rupture of a known earthquake		

Key: NI = No Impact; LTS = Less than Significant; LSM = Less than Significant with Mitigation; SU = Significant and Unavoidable

Impact	APMs or MMs	Significance Determination
fault, strong seismic ground shaking, seismic-related ground failure, or landslides:		
i. Rupture of a known earthquake fault	None	NI
ii. Strong seismic ground shaking	None	NI
iii. Seismic-related ground failure, including liquefaction	None	NI
iv. Landslides	None	NI
Impact GEO-2: Result in substantial erosion or loss of topsoil.	APM AIR-3: Minimize Fugitive Dust	LTS
Impact GEO-3: Be located on a geologic unit that is unstable or that may become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	APM GEO 1: Soft or Loose Soils MM GEO-1: Implement Recommendations in the Project Geotechnical Investigation Reports	LSM
Impact GEO-4: Be located on expansive soil, as defined in Figure 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	MM GEO-1: Implement Recommendations in the Project Geotechnical Investigation Reports	LSM
Impact GEO-5: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for disposal of wastewater.	None	NI

Key: NI = No Impact; LTS = Less than Significant; LSM = Less than Significant with Mitigation; SU = Significant and Unavoidable

Impact	APMs or MMs	Significance Determination
Impact GEO-6: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	APM GEN-1: Prepare and Implement a Worker Environmental Awareness Program APM PALEO-1: Retain a Qualified Paleontological Principal Investigator APM PALEO-2: Inadvertent Discoveries APM PALEO-3: Paleontological Construction Monitoring APM PALEO-4: Fossil Recovery	LTS
Greenhouse Gas Emissions		
Impact GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	APM AIR-1: Minimize ROG, NOx, and PM Combustion APM GHG-1: Minimize Operational SF_6 Emissions	LTS
Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.	None	LTS
Hazards and Hazardous Materials		
Impact HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	APM HAZ-1: Hazardous Substance Control and Emergency Response	LTS
Impact HAZ-2: 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.	APM HAZ-1: Hazardous Substance Control and Emergency Response	LTS

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Impact	APMs or MMs	Significance Determination
Impact HAZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or wastes within 0.25 mile of an existing or proposed school.	None	NI
Impact HAZ-4: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.	APM HAZ-1: Hazardous Substance Control and Emergency Response	LTS
Impact HAZ-5: 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, result in a safety hazard or excessive noise for people residing or working in the project area.	None	LTS
Impact HAZ-6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	MM TR-1: Construction Traffic Control Plan	LSM
Impact HAZ-7: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	None	LTS
Hydrology and Water Quality		
Impact HYD/WQ-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	APM HAZ-1: Hazardous Substance Control and Emergency Response	LTS

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Impact	APMs or MMs	Significance Determination
	APM HYDRO-1: Avoidance of Sensitive Aquatic Features	
Impact HYD/WQ- 2: Substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	None	LTS
Impact HYD/WQ-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:		
i. Result in substantial erosion or siltation on- or off-site	None	LTS
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite	None	LTS
iii. 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	APM HAZ-1: Hazardous Substance Control and Emergency Response	LTS
iv. Impede or redirect flood flows	None	LTS
Impact HYD/WQ-4: Risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.	APM HAZ-1: Hazardous Substance Control and Emergency Response	LTS

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Impact	APMs or MMs	Significance Determination
Impact HYD/WQ-5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	APM HAZ-1: Hazardous Substance Control and Emergency Response APM HYDRO-1: Avoidance of Sensitive Aquatic Features	LTS
Land Use and Planning		
Impact LU-1: Physically divide an established community.	MM TR-1: Construction Traffic Control Plan (not required to reduce significant land use impacts)	LTS
Impact LU-2: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	None	LTS
Mineral Resources		
Impact MR-1: Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.	None	LTS
Impact MR-2: 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.	None	NI
Noise and Vibration		
Impact NOISE-1: Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local	APM NOI-1: Construction Schedule Limits APM AG-1: Coordinate with Landowners, Farmers, and Ranchers Regarding Construction Activities	SU

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Impact	APMs or MMs	Significance Determination
general plan or noise ordinance or in the applicable standards of other agencies.	APM NOI-2: Noise Minimization MM NOI-1: General Construction Noise MM NOI-2: Minimize Noise Impacts from Helicopters	
Impact NOISE-2: Generation of excessive ground-borne vibration or ground-borne noise levels.	None	LTS
Impact NOISE-3: For a project located within the vicinity of a private airstrip or an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public-use airport, would the project expose people residing or working in the project area to excessive noise levels?	None	LTS
Population and Housing		
Impact POP-1: Induce substantial unplanned 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).	None	LTS
Impact POP-2: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	None	LTS

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Impact	APMs or MMs	Significance Determination
Public Services		
Impact PUB-1: 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 would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for:		
a. Fire protection	None	LTS
b. Police protection	MM TR-1: Construction Traffic Control Plan	LSM
c. Schools	None	LTS
d. Parks	None	LTS
e. Others	None	LTS
Recreation		
Impact REC-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated.	None	LTS
Impact REC-2: Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical impact on the environment.	None	NI

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Impact	APMs or MMs	Significance Determination
Transportation		
Impact TR-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	MM TR-1: Construction Traffic Control Plan	LSM
Impact TR-2: Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b).	None	LTS
Impact TR-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	MM TR-1: Construction Traffic Control Plan	LSM
Impact TR-4: Result in inadequate emergency access or interfere with an adopted emergency evacuation plan.	MM TR-1: Construction Traffic Control Plan	LSM
Tribal Cultural Resources		
Impact TCR-1: Cause a substantial adverse change in the significance of a tribal cultural resource.	APM CUL-1: Retain a Qualified Cultural Principal Investigator APM CUL-2: Avoidance APM CUL-3: Inadvertent Discoveries APM CUL-4: Discovery of Human Remains APM CUL-5: Tribal Construction Monitoring APM CUL-6: Archaeological Construction Monitoring APM GEN-1: Prepare and Implement a Worker Environmental Awareness Program	LSM

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Impact	APMs or MMs	Significance Determination
	MM CR-1: CPUC Enhancements to APMs CUL-1, CUL-2, CUL-3, CUL-5, and CUL-6 MM CR-2: Comply with the Legal Requirements of PRC 5097.98 MM TCR-1: Tribal Monitoring and Treatment of Tribal Cultural Resources	
Utilities and Service Systems		
Impact UTL-1: Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	None	LTS
Impact UTL-2: Have insufficient water supplies available to supply the project and reasonably foreseeable future development during normal, dry and multiple dry years.	None	LTS
Impact UTL-3: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	None	LTS
Impact UTL-4: Generate solid waste in excess of State or local standards, or in excess of the capacity of local	None	LTS

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Impact	APMs or MMs	Significance Determination
infrastructure, or otherwise impair the attainment of solid waste reduction goals.		
Impact UTL-5: Failure to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	None	LTS
Wildfire		
Impact WF-1: Substantially impair an adopted emergency response plan or emergency evacuation plan.	MM TR-1: Construction Traffic Control Plan	LSM
Impact WF-2: Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	None	LTS
Impact WF-3: Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	None	LTS
Impact WF-4: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	None	LTS

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Table ES-2. Summary of Impacts, Applicant-Proposed Measures, and Mitigation Measures for the Reasonably Foreseeable Distribution Components, Ultimate Substation Buildout, and Alternatives

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	No Project Alternative	Alternative SS-1: Bonel Ranch Substation Site	Alternative PLR-1A: Estrella Route to Estrella Substation	Alternative PLR-1C: Estrella Route to Bonel Ranch	Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)	Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation	Alternative SE-PLR-2: Templeton-Paso South River Road Route	Alternative BS-2: Battery Storage to Address the Distribution Objective	Alternative BS-3: Behind-the-Meter Solar and Battery Storage
Aesthetics										
Impact AES-1: Have a substantial adverse effect on a scenic vista.	LTS	NI	LTS	LTS	LTS	LTS	LTS	SU (MM AES-1)	NC	NC
Impact AES-2: Substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Impact AES-3: In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.	LTS	NI	LSM (MM AES-1)	LSM (MM AES-1)	LSM (MM AES-1)	LTS	LSM (MM AES-1)	SU (MM AES-1)	NC	NC
Impact AES-4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LTS (APM AES-1)	NI	LSM (APM AES-2) (MM AES-1)	LSM (APM AES-2) (MM AES-1)	LSM (APM AES-2) (MM AES-1)	LTS (APM AES-2)	LSM (APM AES-2 (MM AES-1)	LSM (APM AES-2) (MM AES-1)	NC	NC
Agriculture and Forestry Resources										
Impact AG-1: Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use.	LTS (APM AG-1)	NI	LTS (APM AG-1)	SU (APM AG-1) (MM AG-1, AG-2)	SU (APM AG-1) (MM AG-1, AG-2)	LTS (APM AG-1)	LTS (APM AG-1)	SU (APM AG-1) (MM AG-1, AG-2)	NC	NC
Impact AG-2: Conflict with existing zoning for agricultural use or Williamson Act contract.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Impact AG-3: Involve other changes in the existing environment that, because of their location or nature, could result in a conversion of Farmland to a nonagricultural use.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	No Project Alternative	Alternative SS-1: Bonel Ranch Substation Site	Alternative PLR-1A: Estrella Route to Estrella Substation	Alternative PLR-1C: Estrella Route to Bonel Ranch	Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)	Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation	Alternative SE-PLR-2: Templeton-Paso South River Road Route	Alternative BS-2: Battery Storage to Address the Distribution Objective	Alternative BS-3: Behind-the-Meter Solar and Battery Storage
Air Quality										
Impact AQ-1: Potential to conflict with or obstruct implementation of the [air district] air quality plan.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Impact AQ-2: Potential to violate [list AQ pollutants] significance thresholds and contribute substantially to an existing or projected air quality violation.	LTS (APMs AIR-1, AIR-2, AIR-3)	NI	SU (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1)	SU (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1)	SU (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1)	SU (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1)	SU (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1)	SU (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1)	NC	NC
Impact AQ-3: Potential to expose sensitive receptors to substantial pollutant concentrations.	LTS (APMs AIR-1, AIR-2, AIR-3)	NI	LTS (APMs AIR-1, AIR-2, AIR-3)	LSM (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1)	LSM (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1)	LSM (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1)	LSM (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1)	LSM (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1)	NC	NC
Impact AQ-4: Potential to create objectionable odors affecting a substantial number of people.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Biological Resources										
Impact BIO-1: 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 CDFW or USFWS.	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AES-2, AIR-3, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5) (MMs BIO-1, BIO-2, BIO-3, HYD/WQ-1)	NI	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AES-2, AIR-3, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5) (MMs BIO-1, BIO-2, BIO-3)	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AES-2, AIR-3, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5) (MMs BIO-1, BIO-2, BIO-3)	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AES-2, AIR-3, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5) (MMs BIO-1, BIO-2, BIO-3)	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AES-2, AIR-3, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5) (MMs BIO-1, BIO-2, BIO-3)	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AES-2, AIR-3, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5) (MMs BIO-1, BIO-2, BIO-3)	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AES-2, AIR-3, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5) (MMs BIO-1, BIO-2, BIO-3)	NC	NC
Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS.	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AIR-3) (MM BIO-1, HYD/WQ-1)	NI	LTS	LSM (MM BIO-4)	LSM (MM BIO-4)	LSM (MM BIO-4)	LTS	LSM (MM BIO-4)	NC	NC

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	**No Project Alternative**	**Alternative SS-1: Bonel Ranch Substation Site**	**Alternative PLR-1A: Estrella Route to Estrella Substation**	**Alternative PLR-1C: Estrella Route to Bonel Ranch**	**Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)**	**Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation**	**Alternative SE-PLR-2: Templeton-Paso South River Road Route**	**Alternative BS-2: Battery Storage to Address the Distribution Objective**	**Alternative BS-3: Behind-the-Meter Solar and Battery Storage**
Impact BIO-3: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AIR-3) (MM BIO-1, HYD/WQ-1)	NI	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AIR-3) (MM BIO-1)	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AIR-3) (MM BIO-1)	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AIR-3) (MM BIO-1)	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AIR-3) (MM BIO-1)	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AIR-3) (MM BIO-1)	LSM (APMs HYDRO-1, HAZ-1, GEN-1, AIR-3) (MM BIO-1)	NC	NC
Impact BIO-4: 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.	LSM (APM BIO-1) (MM BIO-1)	NI	LSM (APM BIO-1) (MM BIO-1)	LSM (APM BIO-1) (MM BIO-1)	LSM (APM BIO-1) (MM BIO-1)	LSM (APM BIO-1) (MM BIO-1)	LSM (APM BIO-1) (MM BIO-1)	LSM (APM BIO-1) (MM BIO-1)	NC	NC
Impact BIO-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LSM (APM BIO-1, BIO-3, BIO-4, BIO-5) (MM BIO-1)	NI	LSM (APM BIO-1, BIO-3, BIO-4, BIO-5) (MM BIO-1)	LSM (APM BIO-1, BIO-3, BIO-4, BIO-5) (MM BIO-1, BIO-4)	LSM (APM BIO-1, BIO-3, BIO-4, BIO-5) (MM BIO-1, BIO-4)	LSM (APM BIO-1, BIO-3, BIO-4, BIO-5) (MM BIO-1, BIO-4)	LSM (APM BIO-1, BIO-3, BIO-4, BIO-5) (MM BIO-1)	LSM (APM BIO-1, BIO-3, BIO-4, BIO-5) (MM BIO-1, BIO-4)	NC	NC
Cultural Resources										
Impact CR-1: Cause a substantial adverse change in the significance of a historical and/or archaeological resource as defined in section 15064.5.	LSM (APMs CUL-1, CUL-2, CUL-3, CUL-5, CUL-6, GEN-1) (MM CR-1, CR-3)	NI	LSM (APMs CUL-1, CUL-2, CUL-3, CUL-5, CUL-6, GEN-1) (MM CR-1, CR-3)	LSM (APMs CUL-1, CUL-2, CUL-3, CUL-5, CUL-6, GEN-1) (MM CR-1, CR-3)	LSM (APMs CUL-1, CUL-2, CUL-3, CUL-5, CUL-6, GEN-1) (MM CR-1, CR-3)	LSM (APMs CUL-1, CUL-2, CUL-3, CUL-5, CUL-6, GEN-1) (MM CR-1)	LSM (APMs CUL-1, CUL-2, CUL-3, CUL-5, CUL-6, GEN-1) (MM CR-1)	LSM (APMs CUL-1, CUL-2, CUL-3, CUL-5, CUL-6, GEN-1) (MM CR-1)	NC	NC
Impact CR-2: Disturb human remains, including those interred outside of dedicated cemeteries.	LSM (APM CUL-4) (MM CR-2)	NI	LSM (APM CUL-4) (MM CR-2)	LSM (APM CUL-4) (MM CR-2)	LSM (APM CUL-4) (MM CR-2)	LSM (APM CUL-4) (MM CR-2)	LSM (APM CUL-4) (MM CR-2)	LSM (APM CUL-4) (MM CR-2)	NC	NC

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	**No Project Alternative**	**Alternative SS-1: Bonel Ranch Substation Site**	**Alternative PLR-1A: Estrella Route to Estrella Substation**	**Alternative PLR-1C: Estrella Route to Bonel Ranch**	**Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)**	**Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation**	**Alternative SE-PLR-2: Templeton-Paso South River Road Route**	**Alternative BS-2: Battery Storage to Address the Distribution Objective**	**Alternative BS-3: Behind-the-Meter Solar and Battery Storage**
Energy										
Impact ENR-1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	LTS (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1 [not necessary to reduce impacts])	NI	LTS (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1 [not necessary to reduce impacts])	LTS (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1 [not necessary to reduce impacts])	LTS (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1 [not necessary to reduce impacts])	LTS (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1 [not necessary to reduce impacts])	LTS (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1 [not necessary to reduce impacts])	LTS (APMs AIR-1, AIR-2, AIR-3) (MM AQ-1 [not necessary to reduce impacts])	NC	NC
Impact ENR-2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Geology, Soils, and Seismicity										
Impact GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:										
i. Rupture of a known earthquake fault	NI	NI	NI	LTS	LTS	Ni	Ni	Ni	NC	NC
ii. Strong seismic ground shaking	NI	NI	NI	LTS	LTS	NI	NI	NI	NC	NC
iii. Seismic-related ground failure, including liquefaction	NI	NI	NI	LTS	LTS	NI	NI	NI	NC	NC
iv. Landslides	NI	NI	NI	LTS	LTS	NI	NI	NI	NC	NC
Impact GEO-2: Result in substantial erosion or loss of topsoil.	LSM (APM AIR-3) (MM HYD/WQ-1)	NI	LTS (APM AIR-3)	LTS (APM AIR-3)	LTS (APM AIR-3)	LTS (APM AIR-3)	LTS (APM AIR-3)	LTS (APM AIR-3)	NC	NC
Impact GEO-3: Be located on a geologic unit that is unstable or that may become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	LTS (APM GEO-1)	NI	LTS (APM GEO-1)	LTS (APM GEO-1)	LTS (APM GEO-1)	LTS (APM GEO-1)	LTS (APM GEO-1)	LTS (APM GEO-1)	NC	NC

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	**No Project Alternative**	**Alternative SS-1: Bonel Ranch Substation Site**	**Alternative PLR-1A: Estrella Route to Estrella Substation**	**Alternative PLR-1C: Estrella Route to Bonel Ranch**	**Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)**	**Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation**	**Alternative SE-PLR-2: Templeton-Paso South River Road Route**	**Alternative BS-2: Battery Storage to Address the Distribution Objective**	**Alternative BS-3: Behind-the-Meter Solar and Battery Storage**
Impact GEO-4: Be located on expansive soil, creating substantial direct or indirect risks to life or property.	LTS (APM GEO-1)	NI	LTS (APM GEO-1)	LTS (APM GEO-1)	LTS (APM GEO-1)	LTS (APM GEO-1)	LTS (APM GEO-1)	LTS (APM GEO-1)	NC	NC
Impact GEO-5: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for disposal of waste water.	NI	NI	NI	NI	NI	NI	NI	NI	NC	NC
Impact GEO-6: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	LTS (APMs GEN-1, PALEO-1, PALEO-2, PALEO-3, PALEO-4)	NI	LSM (APMs GEN-1, PALEO-1, PALEO-2, PALEO-3, PALEO-4) (MM GEO-2)	LTS (APMs GEN-1, PALEO-1, PALEO-2, PALEO-3, PALEO-4)	LSM (APMs GEN-1, PALEO-1, PALEO-2, PALEO-3, PALEO-4) (MM GEO-2)	LTS (APMs GEN-1, PALEO-1, PALEO-2, PALEO-3, PALEO-4)	LTS (APMs GEN-1, PALEO-1, PALEO-2, PALEO-3, PALEO-4)	LTS (APMs GEN-1, PALEO-1, PALEO-2, PALEO-3, PALEO-4)	NC	NC
Greenhouse Gas Emissions										
Impact GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	LTS (APM AIR-1, GHG-1)	NI	LTS (APM AIR-1, GHG-1)	LTS (APM AIR-1, GHG-1)	LTS (APM AIR-1, GHG-1)	LTS (APM AIR-1, GHG-1)	LTS (APM AIR-1, GHG-1)	LTS (APM AIR-1, GHG-1)	NC	NC
Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Hazards and Hazardous Materials										
Impact HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LTS (APM HAZ-1)	NI	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	NC	NC
Impact HAZ-2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions.	LTS (APM HAZ-1)	NI	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	NC	NC

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	**No Project Alternative**	**Alternative SS-1: Bonel Ranch Substation Site**	**Alternative PLR-1A: Estrella Route to Estrella Substation**	**Alternative PLR-1C: Estrella Route to Bonel Ranch**	**Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)**	**Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation**	**Alternative SE-PLR-2: Templeton-Paso South River Road Route**	**Alternative BS-2: Battery Storage to Address the Distribution Objective**	**Alternative BS-3: Behind-the-Meter Solar and Battery Storage**
Impact HAZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within 0.25 mile of an existing or proposed school.	NI	NI	NI	NI	NI	NI	NI	NI	NC	NC
Impact HAZ-4: 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, create a significant hazard to the public or the environment.	LTS (APM HAZ-1)	NI	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	LTS (APM HAZ-1)	NC	NC
Impact HAZ-5: 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, result in a safety hazard or excessive noise for people residing or working in the project area.	LTS	NI	LTS	LTS	LTS	LTS	NI	NI	NC	NC
Impact HAZ-6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LSM (MM TR-1)	SU	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	NC	NC
Impact HAZ-7: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	LTS	NI	LSM (MM HAZ-1)	LSM (MM HAZ-1)	LSM (MM HAZ-1)	LTS	LSM (MM HAZ-1)	LSM (MM HAZ-1)	NC	NC
Hydrology and Water Quality										
Impact HYD/WQ-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	LSM (APMs HAZ-1, HYDRO-1) (MM HYD/WQ-1)	NI	LTS (APMs HAZ-1, HYDRO-1)	LTS (APMs HAZ-1, HYDRO-1)	LTS (APMs HAZ-1, HYDRO-1)	LTS (APMs HAZ-1, HYDRO-1)	LTS (APMs HAZ-1, HYDRO-1)	LTS (APMs HAZ-1, HYDRO-1)	NC	NC
Impact HYD/WQ- 2: Substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	**No Project Alternative**	**Alternative SS-1: Bonel Ranch Substation Site**	**Alternative PLR-1A: Estrella Route to Estrella Substation**	**Alternative PLR-1C: Estrella Route to Bonel Ranch**	**Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)**	**Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation**	**Alternative SE-PLR-2: Templeton-Paso South River Road Route**	**Alternative BS-2: Battery Storage to Address the Distribution Objective**	**Alternative BS-3: Behind-the-Meter Solar and Battery Storage**
Impact HYD/WQ-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:										
i. Result in substantial erosion or siltation on- or off-site	LSM (APMs HAZ-1, HYDRO-1) (MM HYD/WQ-1)	NI	LTS (APMs HAZ-1, HYDRO-1)	LTS (APMs HAZ-1, HYDRO-1)	LTS (APMs HAZ-1, HYDRO-1)	LTS (APMs HAZ-1, HYDRO-1)	LTS (APMs HAZ-1, HYDRO-1)	LTS (APMs HAZ-1, HYDRO-1)	NC	NC
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
iii. 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	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
iv. Impede or redirect flood flows	LTS	NI	NI	LTS	LTS	NI	NI	LTS	NC	NC
Impact HYD/WQ-4: Risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.	LTS	NI	NI	LTS	LTS	NI	NI	LTS	NC	NC
Impact HYD/WQ-5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Land Use and Planning										
Impact LU-1: Physically divide an established community.	LTS	NI	LTS	LTS	LTS	LTS (MM TR-1 [not necessary to reduce impacts])	LTS	LTS (MM TR-1 [not necessary to reduce impacts])	NC	NC

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	**No Project Alternative**	**Alternative SS-1: Bonel Ranch Substation Site**	**Alternative PLR-1A: Estrella Route to Estrella Substation**	**Alternative PLR-1C: Estrella Route to Bonel Ranch**	**Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)**	**Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation**	**Alternative SE-PLR-2: Templeton-Paso South River Road Route**	**Alternative BS-2: Battery Storage to Address the Distribution Objective**	**Alternative BS-3: Behind-the-Meter Solar and Battery Storage**
Impact LU-2: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Mineral Resources										
Impact MR-1: 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.	NI	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Impact MR-2: 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.	NI	NI	NI	NI	NI	NI	NI	NI	NC	NC
Noise and Vibration										
Impact NOISE-1: Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or in the applicable standards of other agencies.	LTS (APMs NOI-1, NOI-2, AG-1)	NI	SU (APMs NOI-1, NOI-2, AG-1) (MMs NOI-1, NOI-2)	SU (APMs NOI-1, NOI-2, AG-1) (MMs NOI-1, NOI-2)	SU (APMs NOI-1, NOI-2, AG-1) (MMs NOI-1, NOI-2)	SU (APMs NOI-1, NOI-2, AG-1) (MMs NOI-1, NOI-2)	LSM (APMs NOI-1, NOI-2, AG-1) (MMs NOI-1, NOI-2)	SU (APMs NOI-1, NOI-2, AG-1) (MMs NOI-1, NOI-2)	NC	NC
Impact NOISE-2: Generation of excessive ground-borne vibration or ground-borne noise levels.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Impact NOISE-3: For a project located within the vicinity of a private airstrip or an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public-use airport, would the project expose people residing or working in the project area to excessive noise levels?	LTS	NI	LTS	LTS	LTS	LTS	NI	NI	NC	NC

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	**No Project Alternative**	**Alternative SS-1: Bonel Ranch Substation Site**	**Alternative PLR-1A: Estrella Route to Estrella Substation**	**Alternative PLR-1C: Estrella Route to Bonel Ranch**	**Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)**	**Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation**	**Alternative SE-PLR-2: Templeton-Paso South River Road Route**	**Alternative BS-2: Battery Storage to Address the Distribution Objective**	**Alternative BS-3: Behind-the-Meter Solar and Battery Storage**
Population and Housing										
Impact POP-1: Induce substantial unplanned 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).	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Impact POP-2: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	NI	NI	NI	LTS	LTS	LTS	LTS	LTS	NC	NC
Public Services										
Impact PUB-1: 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 would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:										
a. Fire protection	LTS	NI	LSM (MM HAZ-1)	LSM (MM HAZ-1)	LSM (MM HAZ-1)	LTS	LSM (MM HAZ-1)	LSM (MM HAZ-1)	NC	NC
b. Police protection	LSM (MM TR-1)	NI	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	NC	NC
c. Schools	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
d. Parks	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
e. Others	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Recreation										
Impact REC-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	**No Project Alternative**	**Alternative SS-1: Bonel Ranch Substation Site**	**Alternative PLR-1A: Estrella Route to Estrella Substation**	**Alternative PLR-1C: Estrella Route to Bonel Ranch**	**Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)**	**Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation**	**Alternative SE-PLR-2: Templeton-Paso South River Road Route**	**Alternative BS-2: Battery Storage to Address the Distribution Objective**	**Alternative BS-3: Behind-the-Meter Solar and Battery Storage**
Impact REC-2: Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical impact on the environment.	NI	NI	NI	NI	NI	NI	NI	NI	NC	NC
Transportation										
Impact TR-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	LSM (MM TR-1)	NI	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	NC	NC
Impact TR-2: Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Impact TR-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LSM (MM TR-1)	NI	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	NC	NC
Impact TR-4: Result in inadequate emergency access or interfere with an adopted emergency evacuation plan.	LSM (MM TR-1)	NI	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	NC	NC
Tribal Cultural Resources										
Impact TCR-1: Cause a substantial adverse change in the significance of a tribal cultural resource.	LSM (APMs CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, GEN-1) (MMs CR-1, CR-2, CR-3, TCR-1)	NI	LSM (APMs CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, GEN-1) (MMs CR-1, CR-2, CR-3, TCR-1)	LSM (APMs CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, GEN-1) (MMs CR-1, CR-2, CR-3, TCR-1)	LSM (APMs CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, GEN-1) (MMs CR-1, CR-2, CR-3, TCR-1)	LSM (APMs CUL-1, CUL-3, CUL-4, GEN-1) (MMs CR-1, CR-2, TCR-1)	LSM (APMs CUL-1, CUL-3, CUL-4, GEN-1) (MMs CR-1, CR-2, TCR-1)	LSM (APMs CUL-1, CUL-3, CUL-4, GEN-1) (MMs CR-1, CR-2, TCR-1)	NC	NC

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	**No Project Alternative**	**Alternative SS-1: Bonel Ranch Substation Site**	**Alternative PLR-1A: Estrella Route to Estrella Substation**	**Alternative PLR-1C: Estrella Route to Bonel Ranch**	**Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)**	**Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation**	**Alternative SE-PLR-2: Templeton-Paso South River Road Route**	**Alternative BS-2: Battery Storage to Address the Distribution Objective**	**Alternative BS-3: Behind-the-Meter Solar and Battery Storage**
Utilities and Service Systems										
Impact UTL-1: Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Impact UTL-2: Have insufficient water supplies to supply the project and reasonably foreseeable future development during normal, dry and multiple dry years.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Impact UTL-3: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Impact UTL-4: Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Impact UTL-5: Failure to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	LTS	NI	LTS	LTS	LTS	LTS	LTS	LTS	NC	NC
Wildfire										
Impact WF-1: Substantially impair an adopted emergency response plan or emergency evacuation plan.	LSM (MM TR-1)	SU	LSM (MM TR-1)	LSM (MM TR-1)	LSM (MM TR-1)	LTS (MM TR-1 [not necessary to reduce impacts)	LSM (MM TR-1)	LSM (MM TR-1)	NC	NC

Impact	Level of Significance and Applicable APMs and MMs									
	Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout	**No Project Alternative**	**Alternative SS-1: Bonel Ranch Substation Site**	**Alternative PLR-1A: Estrella Route to Estrella Substation**	**Alternative PLR-1C: Estrella Route to Bonel Ranch**	**Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)**	**Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation**	**Alternative SE-PLR-2: Templeton-Paso South River Road Route**	**Alternative BS-2: Battery Storage to Address the Distribution Objective**	**Alternative BS-3: Behind-the-Meter Solar and Battery Storage**
Impact WF-2: Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	LTS	NI	LSM (MM HAZ-1)	LSM (MM HAZ-1)	LSM (MM HAZ-1)	LTS	LSM (MM HAZ-1)	LSM (MM HAZ-1)	NC	NC
Impact WF-3: Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	LTS	NI	LSM (MM HAZ-1)	LSM (MM HAZ-1)	LSM (MM HAZ-1)	LTS	LSM (MM HAZ-1)	LSM (MM HAZ-1)	NC	NC
Impact WF-4: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	LTS	NI	LSM (MM HAZ-1)	LSM (MM HAZ-1)	LSM (MM HAZ-1)	LTS	LSM (MM HAZ-1)	LSM (MM HAZ-1)	NC	NC

Chapter 1
Introduction

The California Public Utilities Commission (CPUC) has prepared this Draft Environmental Impact Report (DEIR) to provide the public, responsible agencies, and trustee agencies with information about the potential environmental effects of construction and operation of the Estrella Substation and Paso Robles Area Reinforcement Project (Proposed Project) proposed by Pacific Gas & Electric Company (PG&E) and Horizon West Transmission (HWT) (formerly known as NextEra Energy Transmission West, LLC) (collectively referred to as the "Applicants"). The Proposed Project and its location are described in depth in Chapter 2. Alternatives to the Proposed Project are described in Chapter 3. This document was prepared pursuant to the requirements of the California Environmental Quality Act (CEQA) of 1970 (as amended) and the CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.).

1.1 Overview of CEQA Requirements

Per CEQA Guidelines section 15022, CEQA's basic purposes are to:

1. Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.

2. Identify the ways that environmental damage can be avoided or significantly reduced.

3. Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the government agency finds the changes to be feasible.

4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

With certain strictly limited exceptions, CEQA requires all state and local government agencies to consider the environmental consequences of projects over which they have discretionary authority before approving or carrying out those projects. CEQA establishes both procedural and substantive requirements that agencies must satisfy to meet CEQA's objectives. For example, the agency with principal responsibility for approving or carrying out a project (the lead agency) must first assess whether a proposed project could result in significant environmental impacts. If there is substantial evidence that the project could result in significant environmental impacts, CEQA requires that the agency prepare an Environmental Impact Report (EIR), analyzing both the proposed project and a reasonable range of potentially feasible alternatives.

As described in the CEQA Guidelines (CCR Section 15121[a]), an EIR is an informational document that assesses potential environmental effects of a proposed project, and identifies mitigation measures and alternatives to the project that could reduce or avoid potentially significant environmental impacts. Other key CEQA requirements include developing a plan for

implementing and monitoring the success of the identified mitigation measures and carrying out specific public notice and distribution steps to facilitate public involvement in the environmental review process. As an informational document used in the planning and decision-making process, an EIR's purpose is not to recommend either approval or denial of a project.

1.1.1 Intent and Scope of this Document

Although the Proposed Project would be carried out by the Applicants, CPUC has approval authority over the Proposed Project and is the CEQA Lead Agency. In describing and evaluating the various activities comprising the Proposed Project in this DEIR, CPUC is proposing to approve a discretionary project subject to CEQA (CEQA Guidelines Section 15378). CPUC will use the analyses presented in this DEIR, the public response to it, and the whole of the administrative record to evaluate the Proposed Project's environmental impacts and to further modify, approve, or deny approval of the Proposed Project.

1.2 CEQA Process

1.2.1 Notice of Preparation

A notice of preparation (NOP) for the Proposed Project was prepared pursuant to the State CEQA Guidelines (Section 15082) and circulated to the Office of Planning and Research's State CEQA Clearinghouse on July 30, 2018. Subsequently, a revised NOP was circulated on August 1, 2018; the revised NOP corrected a map depicting potential project alternatives, which had inadvertently omitted several possible alternatives in the original NOP. The scoping period continued for 30 days and concluded on August 31, 2018, although several comment letters were accepted beyond this date.

The NOP presented general background information on the Proposed Project, the scoping process, the environmental issues to be addressed in the EIR, and the anticipated uses of the EIR. The NOP was posted online, and more than 200 hard copies of the NOP were distributed by mail to a broad range of stakeholders including state, federal, and local regulatory agencies and jurisdictions, non-profit organizations, and property owners in the vicinity of the Proposed Project. In addition, on August 2 and 5, 2018, an announcement of the release of the NOP, including the dates, times, and locations of scoping meetings, was published in the local newspaper.

1.2.2 Scoping Meeting

To provide the public, as well as responsible and trustee agencies, an opportunity to ask questions and submit comments on the scope of the EIR, a public scoping meeting was held during the scoping period. The meeting was held on Tuesday, August 7, 2018, from 6 p.m. to 8 p.m. at the Winifred Pifer Elementary School located at 1350 Creston Road in Paso Robles. The meeting format consisted of a presentation by CPUC and consultant staff followed by opportunities for attendees to ask questions and submit comments. Written comment cards were provided to all meeting attendees, as well as information on how to access project documents and participate in the public review process going forward. A tablet showing an interactive map of the Proposed Project and potential alternatives also was available for viewing during the scoping meeting. A total of 50 individuals signed in to the meeting.

1.2.3 Comments Received During the Scoping Period

During the scoping period, CPUC received approximately 43 comment letters, 37 of which were from members of the general public. Letters were received from five public agencies, as follows:

- City of El Paso de Robles
- County of San Luis Obispo
- California Department of Conservation
- California Native American Heritage Commission
- California Department of Conservation, Division of Oil, Gas, and Geothermal Resources

CPUC also received a comment letter from the Xolon Salinan tribe.

Specific comments within letters received during scoping covered a wide range of topics. The most common generalized comments received are provided in Table 1-1 below. Key concepts and phrases within the comments are shown in **bold.**

Table 1-1. Most Common Generalized Scoping Comments by Number of Commenters

Comment	No. of Commenters
The proposed overhead power lines would have **aesthetic impacts** and be out of scale with the community.	23
Overhead power lines **should be placed underground** to reduce aesthetic impacts and/or minimize fire risk.	16
Overhead power lines could present **hazards associated with electromagnetic fields**.	15
The addition of overhead power lines could **decrease property values** for nearby properties.	11
The overhead power lines could present a **fire hazard risk** (e.g., if they were downed in an earthquake or high winds).	9
General opposition to the Proposed Project power line route.	8
The overhead power lines would have **noise impacts** from the "buzzing" during operation.	7
Why is the project needed? The rationale for the Proposed Project is not well-founded.	6
The overhead power lines **could adversely affect the flight path** for CAL FIRE helicopters accessing the pond by the Circle B properties.	6

Comment	No. of Commenters
The Project 70 kV route alignments could necessitate **removal of oak trees**.	5
The Proposed Project and alternatives could **impact bald and golden eagles** in the area.	5
Project construction ground-disturbing activities could **impact cultural resources**.	4
Project construction activities could result in **noise impacts**.	4
There would be **traffic impacts** during Project construction.	4
Support for the Proposed Project power line route.	4

As shown in Table 1-1, many of the comments received during the scoping period related to potential impacts (e.g., aesthetic impacts, fire hazard risk, noise impacts, etc.) of the overhead power lines associated with the Proposed Project and alternatives. One of the most common generalized comments received suggested the proposed overhead power lines should be placed underground.

1.2.4 Draft Alternatives Screening Report Review Period

To identify a reasonable range of potentially feasible alternatives for consideration in the DEIR, an Alternatives Screening Report (ASR) was prepared. To provide an opportunity for the public to review and comment on the CPUC's preliminary alternatives screening process and results, a Draft ASR was circulated for public review from March 28, 2019, to May 10, 2019. CPUC received a large number of comments during the Draft ASR review period, including support and opposition for various alternatives and concerns regarding environmental impacts associated with different alternatives. The comments on the Draft ASR were considered by the CPUC during preparation of the Final ASR, which is included as Appendix B to this DEIR.

An analysis of behind-the-meter (BTM) solar and battery storage adoption propensity (BTM Report) was also prepared and circulated to the public as a supplement to the original Draft ASR. A public notice regarding the availability of the BTM Report on the Project website was distributed on January 31, 2020. The BTM Report is included as Appendix B to the Final ASR.

1.2.5 Public Review of the Draft Environmental Impact Report

This DEIR has been prepared in accordance with the requirements of CEQA. In preparing the DEIR, CPUC considered the comments received during the scoping period, as well as input from responsible agencies and other stakeholders. The DEIR represents the CPUC's independent analysis and judgment of the potential environmental impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives.

The DEIR is currently undergoing public review for 55 days. During this period, CPUC will hold two public meetings, which, due to the ongoing COVID-19 pandemic, will be virtual meetings.

The meetings will begin with a brief overview of the Proposed Project, reasonably foreseeable distribution components, and alternatives, and the analysis and conclusions set forth in the DEIR. This introductory presentation will then be followed by an opportunity for interested members of the public to provide comments to CPUC regarding the Proposed Project and the DEIR. If comments from individual members of the public cannot be accommodated during the virtual meetings, individuals will be directed to submit written comments via email or U.S. mail during the public review period. The logistics for the public meeting will be published in local newspapers prior to the event and are included in the notice of availability (NOA) of this DEIR.

Section 1.4 describes how to provide comments on this DEIR.

1.2.6 Preparation of the Final Environmental Impact Report

Written and oral comments received in response to the DEIR will be addressed in a response-to-comments document which, together with the DEIR and any related changes to the substantive discussion in the DEIR, will constitute the final environmental impact report (FEIR). The FEIR, in turn, will inform CPUC's exercise of its discretion as a lead agency under CEQA in deciding whether or how to approve the Proposed Project or select one or more of the alternatives for implementation.

1.3 Organization of this DEIR

This DEIR consists of the following components:

Volume I – Main Body

Executive Summary. This chapter provides a summary of the Proposed Project, reasonably foreseeable distribution components, and project alternatives; describes the public process conducted for the DEIR, the known issues of concern, and the identified environmentally superior alternative; and provides a summary of environmental impacts and mitigation measures.

Chapter 1, *Introduction*. This chapter describes the purpose and organization of the DEIR and its preparation, review, and certification process.

Chapter 2, *Project Description*. This chapter summarizes the Proposed Project, including a description of the Proposed Project's purpose and objectives, a brief description of the Proposed Project area, components, construction activities and construction schedule, operations, the permits and approvals that would be required to implement the Proposed Project, and Applicant-proposed measures for resource protection. Chapter 2 also describes the reasonably foreseeable distribution components that would be developed as a result of the Proposed Project.

Chapter 3, *Alternatives Description.* This chapter describes the alternatives to the Proposed Project that have been carried forward for full analysis in the DEIR, including the principal components of the alternatives, their locations, construction schedules, etc.

Chapter 4, *Environmental Analysis*. This chapter describes the environmental resources and potential environmental impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives. Each topical resource section (4.1 through 4.20) describes the existing setting and background information for the resource under consideration. Each section then discusses the environmental impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives and provides significance determinations based on the CEQA Guidelines Appendix G significance criteria.

Chapter 5, *Alternatives Analysis Summary and Comparison of Alternatives.* This chapter provides a summary of the potential impacts of the respective alternatives (which are evaluated in detail in Chapter 4) and alternative combinations and compares the impacts to the Proposed Project. The chapter then discusses the environmentally superior alternative and estimated costs associated with the different alternative combinations.

Chapter 6, *Other Statutory Considerations and Cumulative Impacts*. This chapter addresses the 'potential for the Proposed Project, reasonably foreseeable distribution components, and alternatives to contribute to cumulative impacts. This chapter also outlines the Proposed Project's potential to induce growth and identifies significant, irreversible environmental changes resulting from the Proposed Project, reasonably foreseeable distribution components, and alternatives.

Chapter 7, *Report Preparation*. This chapter lists the individuals involved in preparing the DEIR.

Chapter 8, *References*. This chapter provides a bibliography of printed references, websites, and personal communications used in preparing this DEIR.

Volume II – Appendices

Appendix A summarizes applicable local laws, regulations, and policies.

Appendix B is the Final Alternatives Screening Report, which identified the alternatives carried forward for full analysis in the DEIR.

Appendix C contains the air quality, energy, and greenhouse gas emission calculations.

Appendix D presents supporting documentation related to the evaluation of potential impacts on vegetation and wildlife.

Appendix E contains the noise analysis calculations.

Appendix F is the Mitigation Monitoring and Reporting Program, which lists the mitigation measures identified in Volume I of the DEIR and describes specific steps for their implementation.

1.4 Submittal of Comments

CPUC is circulating this DEIR for a 55-day public review and comment period, as indicated in the NOA. As discussed above, CPUC will host two public meetings during this period, which will be virtual (online) meetings. The purpose of public circulation and the public meetings is to provide agencies and interested individuals with opportunities to comment on or express concerns regarding the contents of this DEIR. The logistics for the public meetings will be provided in the NOA, on CPUC's website, and in a newspaper advertisement.

Written comments concerning this DEIR can be submitted at the public meeting or at any time during the DEIR public review period. All comments must be received by the deadline indicated in the NOA, directed to the name and address listed below:

Robert Peterson, Project Manager
c/o Tom Engels
Horizon Water and Environment
P.O. Box 2727, Oakland, CA 94602
266 Grand Avenue, Suite 210
Oakland, CA 94610

estrellaproject@horizonh2o.com

Submittal of written comments via e-mail (Microsoft Word or PDF format) would be greatly appreciated. Written comments received in response to this DEIR during the public review period will be addressed in a response-to-comments section of the FEIR.

All documents mentioned herein or related to the Proposed Project can be reviewed online at the following website:

www.cpuc.ca.gov/environment/info/horizonh2o/estrella/index.html

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Chapter 2
Project Description

The California Public Utilities Commission (CPUC) is responsible for environmental review and permitting of Horizon West Transmission, LLC's (HWT) (formerly NextEra Energy Transmission West, LLC [NEET West]) and Pacific Gas and Electric Company's (PG&E) (collectively referred to as the "Applicants") proposed Estrella Substation and Paso Robles Area Reinforcement Project (Proposed Project). The Proposed Project would involve construction and operation of a new 230 kilovolt (kV)/70 kV substation and a new approximately 7-mile-long 70 kV power line, and replacement/reconductoring of approximately 3 miles of an existing 70 kV power line. The Proposed Project also anticipates providing for the future establishment of three new distribution feeders from the proposed Estrella Substation, including construction of roughly 1.7 miles of new distribution line and additional reconductoring activities. The distribution components are not planned to be constructed presently, but are being evaluated in the EIR because they are reasonably foreseeable (PG&E 2020). These facilities would be located in unincorporated San Luis Obispo County and within the City of Paso Robles. The Proposed Project is intended to address identified deficiencies in the electrical grid system in the Paso Robles area and to accommodate projected new growth.

This chapter describes the Proposed Project's purpose and objectives, location and setting, components, construction actions and methods, operation and maintenance, and anticipated permits and approvals. Information presented in this chapter is based primarily on the Proponent's Environmental Assessment (PEA) prepared by SWCA Environmental Consultants, Inc. for HWT and PG&E (NEET West and PG&E 2017) and follow-up requests by the CPUC for additional information.

2.1 Proposed Project Purpose, Need, and Objectives

2.1.1 Purpose and Need

The Proposed Project is needed to provide transmission system redundancy and power support in the event of outages (i.e., contingencies), as well as increased distribution capacity to accommodate forecasted electrical load growth in the Paso Robles area. The Proposed Project would also improve electrical service reliability by reducing the length of distribution feeders in the area. The following subsections provide further detail regarding the fundamental purpose and need of the Proposed Project.

Transmission System

The Proposed Project was identified in the California Independent System Operator's (CAISO) 2013-2014 Transmission Plan as a project needed to mitigate thermal overloads and voltage concerns in the Los Padres 70 kV system (specifically in the San Miguel, Paso Robles, Templeton, Atascadero, Cayucos, and San Luis Obispo areas) (CAISO 2014). CAISO modeling determined that

thermal overloads and very low voltage conditions could occur in this system following either one of two Category B (i.e., P1 or N-1)[1] contingencies: loss of the Templeton 230 kV/70 kV #1 Transformer Bank or loss of the Paso Robles-Templeton 70 kV power line.

Essentially, if either the #1 Transformer Bank at the Templeton Substation or the 70 kV power line connecting the Paso Robles and Templeton Substations were to fail for any reason (e.g., vehicular impact to existing infrastructure, vegetation and/or storm damage, wildlife damage to existing electrical connections, and/or mechanical failure), this could result in dangerous overloading and low voltage conditions in the regional system. This is both due to high load (i.e., electrical service demand) in the Paso Robles area relative to substation capacity, as well as lack of redundancy in the system. As shown in Figure 2-1, currently, the only sources of power to the Paso Robles Substation are the San Miguel-Paso Robles 70 kV power line from the north and the Paso Robles-Templeton 70 kV power line from the south, with the latter providing the bulk of the power and the nearest connection to a 230 kV power source. The San Miguel-Paso Robles 70 kV power line does not have the capacity to accommodate the load served through the Paso Robles Substation should the power source from Templeton Substation fail; therefore, thermal overloads and low voltage could occur on this line during one of the Category B/P1 contingencies identified by CAISO (NEET West and PG&E 2017).

Because PG&E has an Under-Voltage Load Shedding (UVLS) scheme that serves to protect the transmission system infrastructure in the event of such overload scenarios, rather than allow the power line to deteriorate or completely fail, load would be systematically shed to bring voltages to acceptable levels. Practically, without the Proposed Project, this could result in 60 to 70 megawatts (MW) of load in the Paso Robles area being dropped during one of the Category B/P1 contingencies described above (CAISO 2014).

[1] The CAISO uses the National Electric Reliability Commission (NERC) reliability standards to analyze the need for transmission system upgrades. The NERC standards provide criteria for system performance requirements that must be met under a varied but specific set of operating conditions, and prior to 2012, included the following categories:

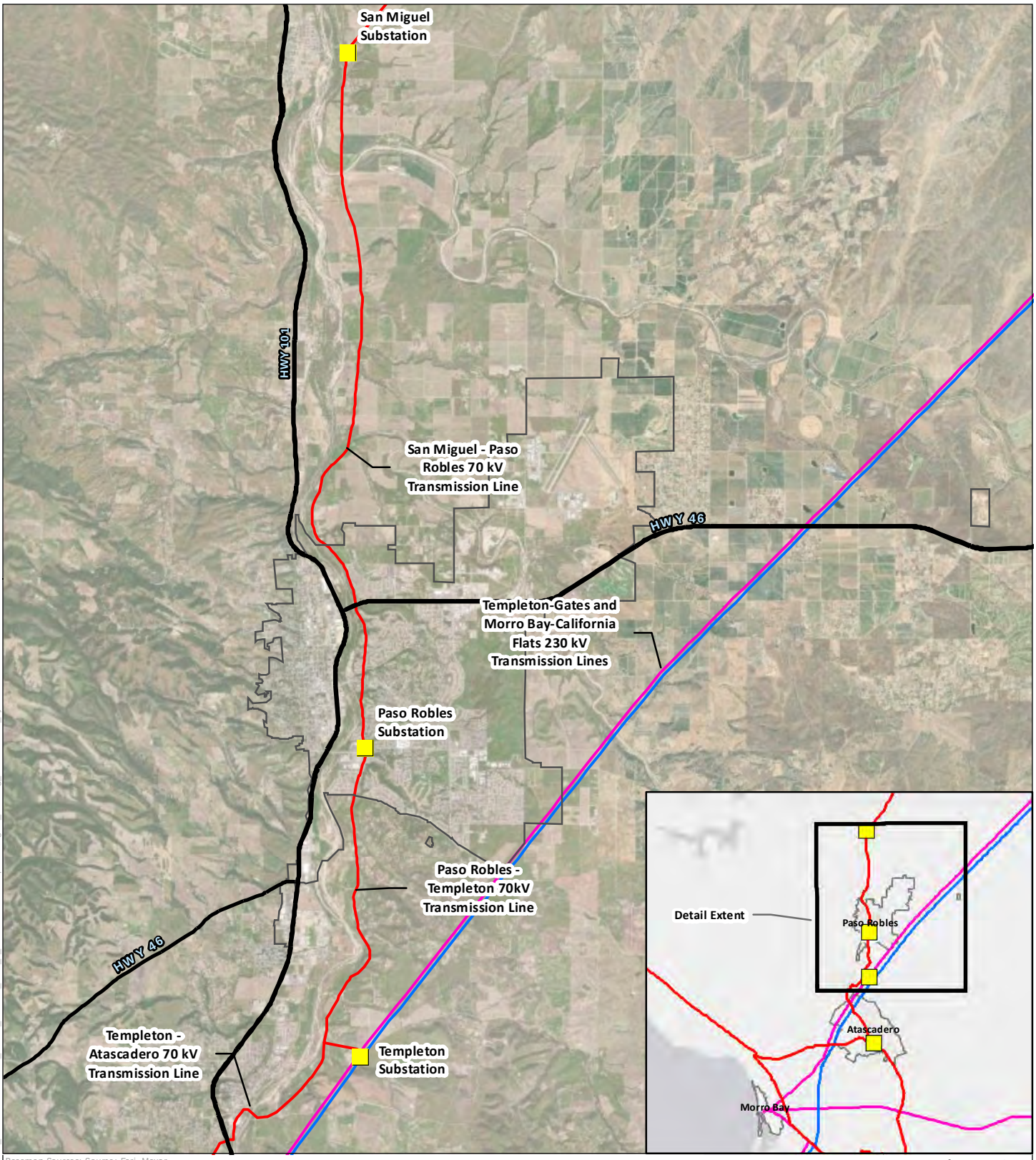
- Category A – System Performance Under Normal Conditions
- Category B – System Performance Following Loss of a Single Bulk Electric System (BES) Element
- Category C – System Performance Following Loss of Two or More BES Elements
- Category D – System Performance Following Extreme BES Events

The latest adopted NERC TPL-001-4 transmission reliability standard applies new terminology; P0 through P7 define different scenarios based on the initial system condition and nature of the event (e.g., loss of generator, transmission circuit, bus section fault, etc.). The Category B contingencies identified for the Proposed Project would equate to a P1 (single contingency), while the Category C3 contingency would equate to a P6 (multiple contingency; two overlapping singles) (NERC No Date). The NERC standards allow for load to be dropped for a P6 contingency, but not for a P1 contingency.

NERC also refers to single contingencies (i.e., loss of a single BES element) as N-1 events. A multiple contingency where both BES elements fail at the same time (e.g., two circuits on the same pole line fail when a pole is hit by a vehicle) is known as a N-2 event. A multiple contingency involving the consecutive loss of two single BES elements that are not physically or electrically connected is known as a N-1-1 event. The Category B/P1 contingencies identified for the Proposed Project would be N-1 events, whereas the Category C3/P6 contingency would be a N-1-1 event.

In addition to the above issues, CAISO also identified a Category C3 (i.e., P6 or N-1-1) contingency condition involving loss of the Morro Bay-Templeton and Templeton-Gates 230 kV lines that would result in thermal overloads and low voltages in the underlying 70 kV system. The 2013-2014 Transmission Plan states that with the additional source from the Gates 230 kV system, the Proposed Project would provide robust system reinforcement to the Paso Robles and Templeton 70 kV system operations (CAISO 2014).

Figure 2-1 shows a map depicting the transmission system in the area of Paso Robles. Figure 2-2 and Figure 2-3 show conceptual diagrams of the existing transmission system and the proposed transmission system with the addition of Estrella Substation.



Basemap Sources: Source: Esri, Maxar, GeoEye, Earthstar Geographics,

Existing Substation

Existing Transmission Lines

70 kV

230 kV

500 kV

Paso Robles City Limits

Highways

N

0 1

Miles

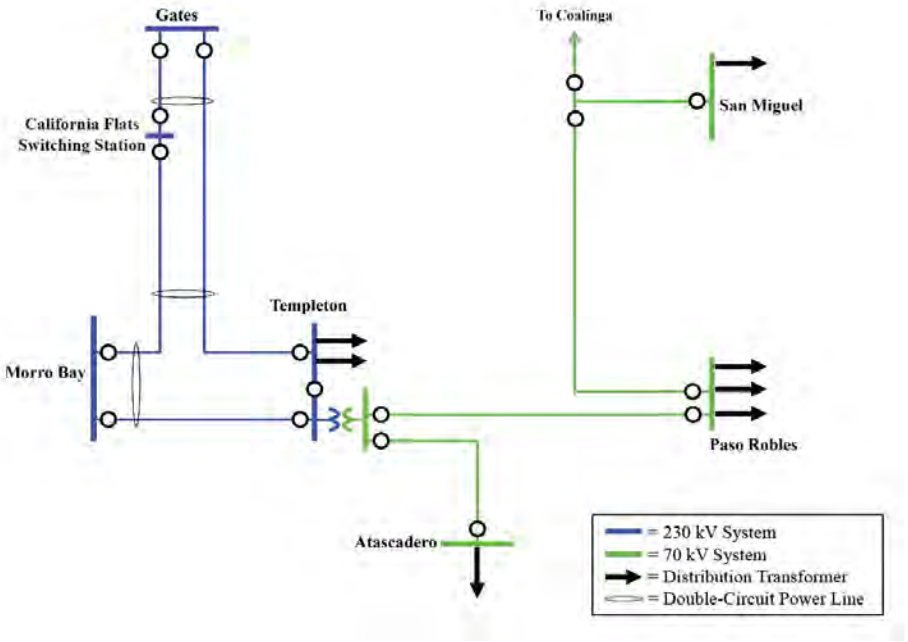
Source: Source: NEET West and PG&E 2017

Note: The route variations shown are offset in order to display the alignments of the alternative routes that may overlap in places.

Figure 2-1
Existing Transmission System

Estrella Substation and Paso Robles Area Reinforcement Project

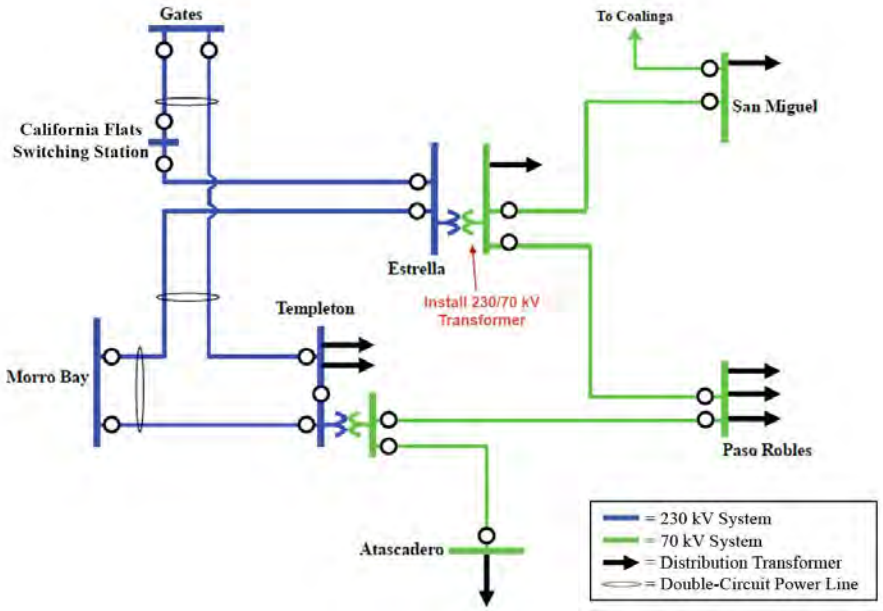
Figure 2-2. Existing Transmission System – Line Diagram



Note: kV = kilovolt

Source: NEET West and PG&E 2017

Figure 2-3. Proposed Transmission System – Line Diagram



Note: kV = kilovolt

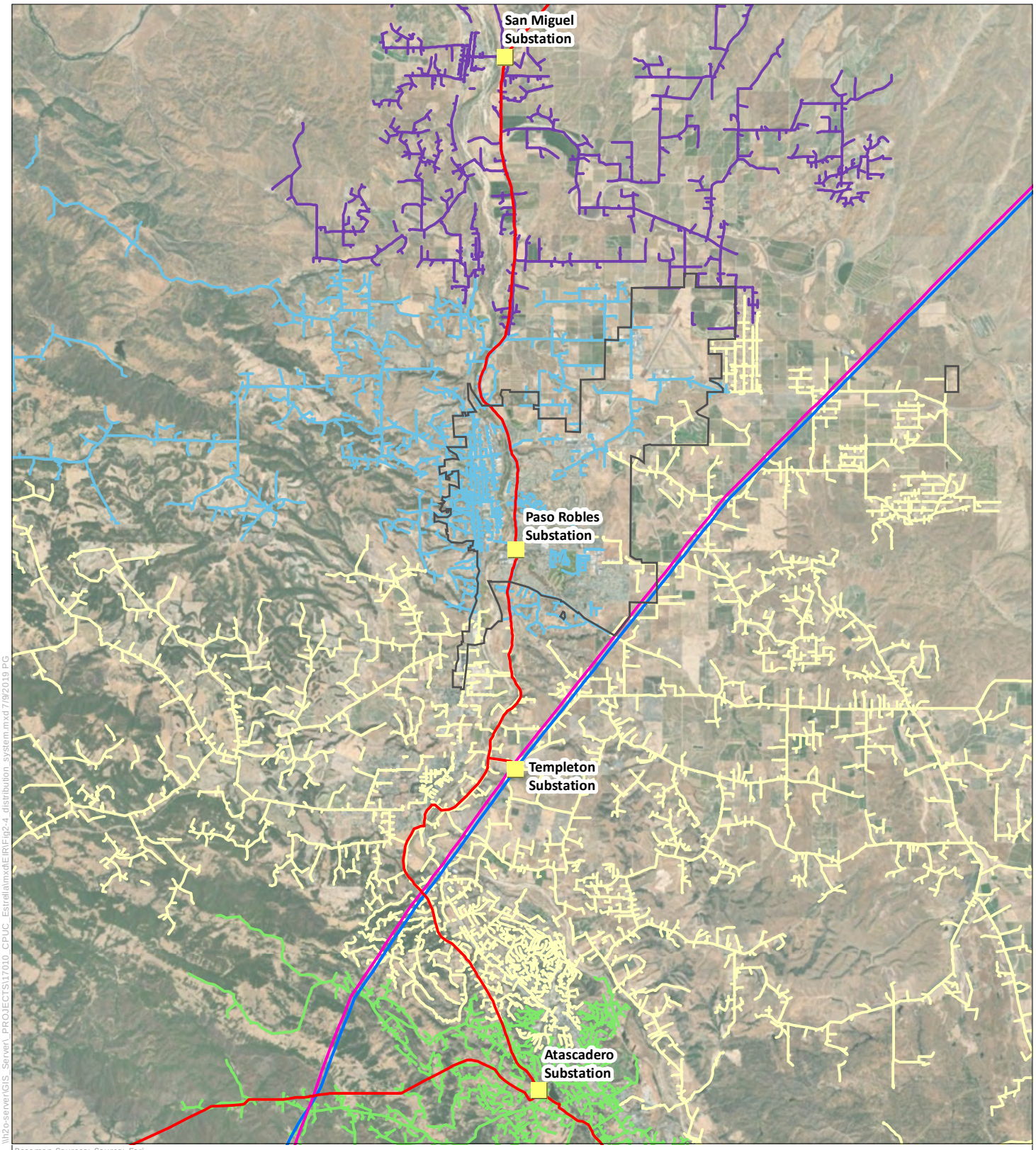
Source: NEET West and PG&E 2017

Distribution System

The Proposed Project also would address existing undesirable conditions and projected load growth in the distribution system in the Paso Robles area. As described in detail in Appendix G of the Applicants' PEA, the Paso Robles system is characterized by very long distribution feeders[2], particularly those extending from Templeton Substation (see Figure 2-4). This is undesirable because long feeders are more susceptible to potential outages caused by vehicle pole strikes, downed vegetation from storms, or other incidents (NEET West and PG&E 2020a). Additionally, outages that occur on long feeders may affect larger numbers of people than similar events that occur on feeders of moderate length. In general, PG&E states that "Reliable distribution systems consist of substations located at regular intervals and sized correctly in terms of capacity and number of feeders to cover the area between substations without overextending some substations and underutilizing others. The Paso Robles Distribution Planning Area (DPA) is not currently in line with these system goals" (NEET West and PG&E 2020a).

Locating the new substation at its proposed location would allow for the long feeders to be split in half and for some of the load currently being served by the Templeton Substation to be served by the new Estrella Substation. Reducing the length of these feeders would reduce potential outages for customers in this area and improve the reliability of the distribution system in this area. Table 2-1 shows historical outages on the Templeton feeders, while Table 2-2 provides more detailed information (including root cause) for the sustained outages on the Templeton feeders. Finally, Table 2-3 provides a comparison of indices for reliability for the Templeton feeders, as compared to the Paso Robles DPA as a whole and to PG&E's entire system. Of note, the information in Table 2-1, Table 2-2, and Table 2-3 shows that (1) numerous sustained and momentary outages have occurred in recent years on the Templeton 21 kV feeders, affecting a substantial number of customers; (2) sustained outages on the Templeton feeders have been caused by a variety of factors and have often lasted quite long (up to 16 hours and 43 minutes); and (3) compared to the Paso Robles DPA and the PG&E system as a whole, the Templeton feeders have a higher average frequency of sustained outages (AIFI) and average frequency of momentary interruptions (MAIFI).

[2] Distribution *circuits* (i.e., electrical lines or conductors) are commonly referred to as *feeders*. They operate at voltages under 50 kV.



Basemap Sources: Source: Esri, DigitalGlobe, GeoEye, Earthstar

Existing Substation

Paso Robles City Limits

Existing Transmission Lines

70 kV

230 kV

500 kV

Existing Distribution

ATASCADERO

PASO ROBLES

SAN MIGUEL

TEMPLETON

N

0 1

Miles

Source: NEET West and PG&E 2017

Figure 2-4
Existing Distribution System

Estrella Substation and
Paso Robles Area Reinforcement Project

\\h2o-server\GIS_Server_PROJECTS\17010_CPUC_Estrella\mxd\EIR\Fig2-4_distribution_system.mxd 7/9/2019 PG

Table 2-1. Five-Year Outage History of Templeton 21 Kilovolt Feeders (February 2012 to February 2017)

Feeder Name	Area Served Where Outages Occurred	No. of Sustained Outages	No. of Momentary Outages	Average No. of Customer Connections Affected Per Event	Highest No. of Customer Connections Affected by an Event
Templeton 2108	Northern Atascadero	7	10	2,955	3,189
Templeton 2109	Northeast Paso Robles	5	9	2,957	4,325
Templeton 2110	Rural West Paso Robles	4	20	1,802	2,926
Templeton 2111	Western Atascadero	6	10	1,847	2,433
Templeton 2112	Southern Paso Robles	3	10	475	1,068
Templeton 2113	Santa Margarita	7	25	1,911	5,446

Source: NEET West and PG&E 2020a

Table 2-2. Sustained Outage History of Templeton 21 kV Feeders (February 2012 to February 2017)

Feeder Name	Root Cause Explanation of the Sustained Outage	Duration of Sustained Outage	Start Time for Sustained Outage (date and time)	Number of Customers Affected
Templeton 2108	Unknown Cause, Patrol – Not Conducted	39 Minutes	12/11/2014, 17:28	3,115
	Equipment Failure/Involved, Overhead	16 hours and 43 minutes	5/18/2015, 16:22	3,124
	Company Initiated, Personnel, Company	21 minutes	10/5/2012, 15:57	3,146
	Equipment Failure/Involved, Other	21 minutes	3/14/2014, 11:49	3,041
	Unknown Cause, Patrol – Found Nothing	20 minutes	8/29/2014, 13:21	2,307
	Unknown Cause, Patrol – Found Nothing	15 minutes	10/8/2014, 14:06	2,313
	Equipment Failure/Involved, Other	51 minutes	9/27/2013, 7:23	3,011
Templeton 2109	3rd Party, Vehicle	2 hours and 3 minutes	5/5/2012, 3:02	4,305
	3rd Party, Vehicle	20 minutes	3/31/2013, 16:58	2,021
	Company Initiated, Coordination Failure	3 hours and 53 minutes	6/28/2013, 16:14	2,023
	Vegetation, Tree – Fell into Line	3 hours and 25 minutes	2/17/2017, 10:10	332
	Equipment Failure/Involved, Other	56 minutes	7/21/2016, 18:19	2,364
Templeton 2110	Equipment Failure/Involved, Substation	3 hours and 45 minutes	6/21/2016, 16:52	2,924
	Equipment Failure/Involved, Other	24 minutes	6/25/2015, 07:45	1,247
	Vegetation Tree – Branch Fell on Line	7 minutes	6/21/2016, 20:49	491
	Equipment Failure/Involved, Underground	24 minutes	6/1/2016, 23:57	1,247
Templeton 2111	Environmental/External, Lightning	10 hours and 15 minutes	7/19/2015, 2:35	1,406
	Equipment Failure/Involved, Overhead	8 hours and 23 minutes	11/9/2015, 01:37	960
	Vegetation, Tree – Fell into Line	10 hours and 40 minutes	3/5/2016, 23:10	959
	Unknown Cause, Patrol – Found Nothing	1 hour and 15 minutes	4/17/2016, 12:53	960
	3rd Party	52 minutes	4/14/2016, 11:34	2,376

Feeder Name	Root Cause Explanation of the Sustained Outage	Duration of Sustained Outage	Start Time for Sustained Outage (date and time)	Number of Customers Affected
	Vegetation, Tree – Fell into Line	51 minutes	7/10/2012, 13:30	2,376
Templeton 2112	3rd Party, Vehicle	12 hours and 16 minutes	12/17/2016, 00:40	937
	Vegetation, Tree – Branch Fell on Line	5 hours and 29 minutes	7/14/2012, 18:51	428
	Company Initiated, Failed Equipment	1 hour and 37 minutes	11/5/2012, 10:27	428

Source: NEET West and PG&E 2019

Table 2-3. Templeton 21 Kilovolt Feeder Outage Indices, as Compared to Indices for the Paso Robles DPA and PG&E System-wide

Sample	Year	AIDI	AIFI	MAIFI	CAIDI	SO	MO
Templeton Feeders							
Selected Templeton Feeder Outages	2012	28.8	0.590	1.687	48.8	6	13
	2013	52.5	0.570	0.907	92.1	6	9
	2014	14.8	0.598	1.234	24.7	5	12
	2015	64.0	0.490	2.337	130.8	5	25
	2016	112.2	1.463	2.532	76.7	12	21
	2017	24.5	0.290	1.011	84.5	2	7
	Average	49.48	0.67	1.62	76.27	-	-
Paso Robles DPA Feeders							
Other Feeder Outages in the Paso Robles DPA	2012	34.1	0.329	0.835	103.4	12	33
	2013	49.6	0.504	1.611	98.5	16	40
	2014	110.9	0.659	1.144	168.3	25	23
	2015	136.5	0.617	1.021	221.1	22	61
	2016	38.2	0.454	1.440	84.2	22	47

Sample	Year	AIDI	AIFI	MAIFI	CAIDI	SO	MO
	2017	109.0	0.430	1.017	253.7	19	17
	Average	79.70	0.50	1.18	154.87	-	-
System-wide Feeders							
System-wide Feeder Outages	2012	70.8	0.609	1.467	116.1	3,191	7,706
	2013	61.3	0.584	1.350	105.0	2,933	7,521
	2014	73.8	0.643	1.265	114.8	3,419	6,870
	2015	59.5	0.546	1.538	108.8	3,281	8,816
	2016	56.2	0.620	1.311	90.5	3,486	8,154
	2017	82.9	0.312	0.667	266.0	1,893	4,247
	Average	67.41	0.55	1.27	133.53	-	-

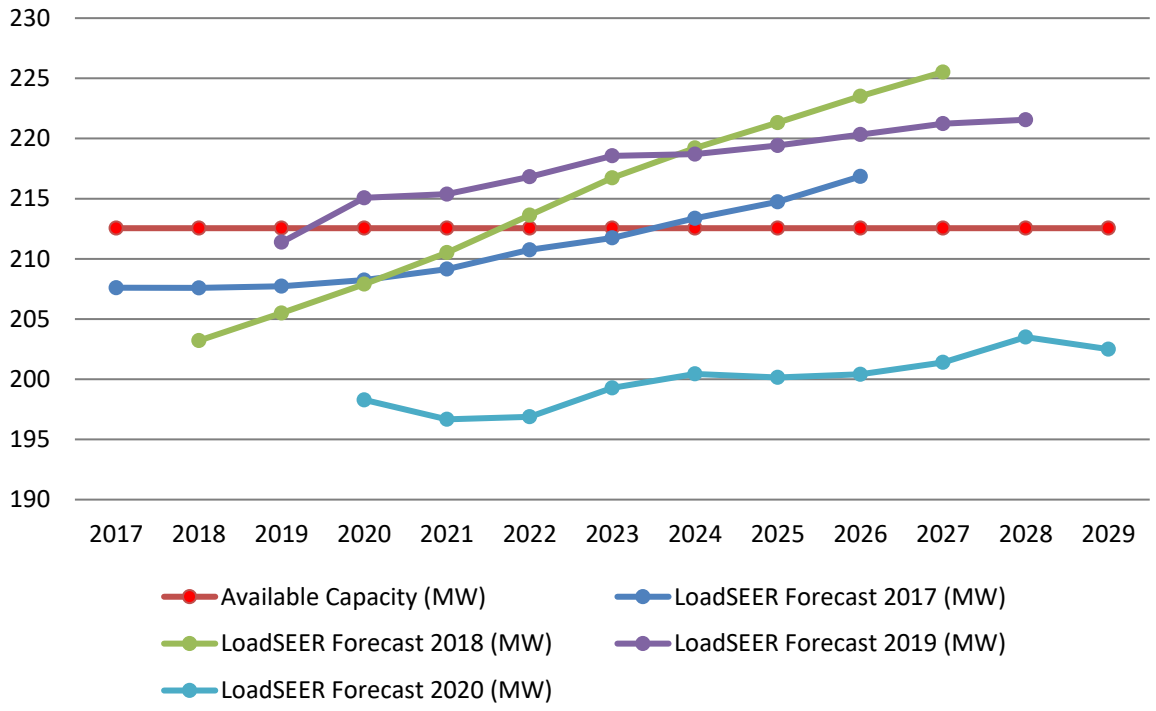
Notes: AIDI = average outage duration; AIFI = average frequency of sustained outages; CAIDI = average service restoration times; MAIFI = average frequency of momentary interruptions; MO = momentary outages; SO = sustained outages

Source: NEET West and PG&E 2019

In addition to the issue of long feeders, the projected growth within the Paso Robles DPA is anticipated to exceed the capacity of the system in the future. The City of Paso Robles (City) expects strong industrial growth to occur north of State Route (SR-) 46 in the Paso Robles city limits (in particular within the Golden Hill Industrial Park and directly south of Paso Robles Airport along Dry Creek Road) within the next 10 years, and a resurgence of residential growth south of SR-46 (NEET West and PG&E 2020a). Overall, City planners are estimating a 50 percent increase in the population of Paso Robles by 2045.

Increases in electrical demand (i.e., load) will place increased demands on the distribution and transmission systems. After using its LoadSEER[3] forecasting tool over the last several years, PG&E predicts that anticipated normal growth in the area, coupled with the addition of large "block loads" (e.g., large new businesses or developments that require large amounts of electricity), will exceed the available capacity of the Paso Robles system within 5 to 15 years (see Figure 2-5).

Figure 2-5. LoadSEER Forecasts (2017-2020), Paso Robles DPA



Source: NEET West and PG&E 2018, 2019, 2020a, 2020b

[3] LoadSEER is a spatial load forecasting tool which is used by electric distribution system planners to predict load and power changes, where on the grid the loads will occur, how distributed generation changes the load shape, and when it must be supplied (Integral Analytics No Date). PG&E utilizes the LoadSEER forecasting tool to predict growth in area electrical demand within a DPA for a 10-year period into the future, incorporating the most recent 13 years of substation historical peak-load data.

As shown in Figure 2-5, the available capacity in the Paso Robles DPA is currently static at just over 212 MW. This capacity is equal to the cumulative capacities of the four substations (Atascadero, Paso Robles, Templeton, and San Miguel) in the DPA, whereas the LoadSEER forecast prepared for the Paso Robles DPA represents the cumulative load that must be served by the distribution system for this area. The forecasted load has varied considerably over the last 4 years of LoadSEER forecasting by PG&E. The current (2020) forecast does not show that load will exceed available capacity in the next ten years, but additional capacity may be needed in the future. In a practical sense, without addition of a new or expanded substation or other facilities to serve increased load when it materializes, this situation could result in thermal overloads, low voltage, and electrical service outages, as the infrastructure is unable to meet demands. While the LoadSEER forecast takes a conservative approach to predict the peak load in any given year (assuming a 1-in-10 year in terms of heat and electricity usage), the actual recorded peak loads in the Paso Robles DPA have been lower than forecasted in recent years, as shown in Table 2-4.

Table 2-4. Recorded Peak Load in the Paso Robles DPA

Year	Historical Available DPA Capacity	Historical DPA Peak Load
2007	182.46	179.44
2008	197.51	169.40
2009	197.51	164.40
2010[1]	212.55	158.73
2011	212.55	150.69
2012	212.55	173.98
2013	212.55	180.63
2014	212.55	164.74
2015	212.55	169.33
2016	212.55	185.50[3]
2017	212.55	195.06
2018	212.55	190.30
2019[2]	212.55	168.10

Notes: DPA = Distribution Planning Area; MW = megawatt

1. Paso Robles Bank 1 was replaced in 2010 with a 30 megavolt ampere transformer unit, bringing available DPA capacity to 212.55 megawatt (MW).
2. Paso Robles Bank 1 capability updated in May 2019 to reflect customer reserve capacity.
3. The original 190.14 MW from 2016 has been corrected to reflect the true value of 185.50.

Source: NEET West and PG&E 2020c

The intent of the Proposed Project is to provide enhanced operational flexibility, improved area system reliability, and add capacity to the system with the addition of the new Estrella Substation. The new Estrella Substation would be able to absorb load currently served by other substations within the DPA and alleviate existing undesirable conditions. Additionally, since the new industrial growth is anticipated to occur in the Golden Hill Industrial Park area, the new substation and the reasonably foreseeable new distribution circuits would be well positioned to serve this new load. Please refer to Appendix G of the Applicants' PEA for detailed discussion of the Proposed Project purpose and need, and the modeling conducted for the existing distribution system.

2.1.2 Project Objectives

Applicants' Project Objectives

In their PEA, the Applicants identified the following objectives for the Proposed Project:

- **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 CAISO in June 2014. The Estrella Project is also intended to allow NEET West [HWT] 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.

CPUC's Project Objectives

As part of its authority as the lead agency under the California Environmental Quality Act (CEQA) for preparation of the environmental impact report (EIR) for the Proposed Project, the CPUC is responsible for identifying appropriate project objectives to inform the CEQA process/evaluation, including the development and screening of project alternatives. These objectives may differ from the Applicants' stated objectives. Based on its understanding of the fundamental underlying purpose of the Proposed Project, the CPUC has identified the following CEQA objectives for the Proposed Project:

- **Transmission Objective:** Mitigate thermal overload and low voltage concerns in the Los Padres 70 kV system during Category B contingency scenarios, as identified by the CAISO in its 2013-2014 Transmission Plan.

- **Distribution Objective:** Accommodate expected future increased electric distribution demand in the Paso Robles DPA, particularly in the anticipated growth areas in northeast Paso Robles.

The issue of long feeders and poor service reliability was not identified as a fundamental project objective by the CPUC; however, it is considered a beneficial effect of the Proposed Project.

2.2 Proposed Project Location and Setting

The Proposed Project would be 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 surrounding the Proposed Project area south of SR-46 are a mixture of intensive agriculture, vineyards, and rural residential development. North of SR-46 and within the City of Paso Robles limits, land uses consist of light industrial development, urban and residential development, and wineries/vineyards. Topography in the vicinity of the Proposed Project is generally rolling hills, with existing elevations ranging from approximately 920 feet to 960 feet above mean sea level. Figure 2-6 shows an overview of the Proposed Project components, location, and setting.

2.2.1 Estrella Substation

Estrella Substation would be located on an approximately 15-acre portion of a 98.6-acre parcel of land. This entire site is currently planted with grape vines of 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 near the southwest corner of the parcel. Dry Creek, an ephemeral tributary to Huer Huero Creek, passes approximately 1,500 feet to the north of the proposed Estrella Substation site. In addition to the one residence at the southwest corner of the parcel, there is a residence located 1,000 feet to the east of the substation site, and a winery located 1,000 feet to the south. 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).

2.2.2 Power Line

The new 70 kV power line would 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[4] on the new structures. The new line follows existing distribution lines for about 2.5 miles, extending through vineyards and large

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

residential properties on the north side of Union Road, and then turning northwesterly and crossing Huer Huero Creek and continuing along the north side of Union Road.

Note that a possible Minor Route Variation (MRV) is under consideration at roughly the location where the new 70 kV power line would cross Huer Huero Creek along Union Road. This MRV would only be implemented if a possible golden eagle nest along Huer Huero Creek in this location is confirmed to have eagles present prior to Project construction.

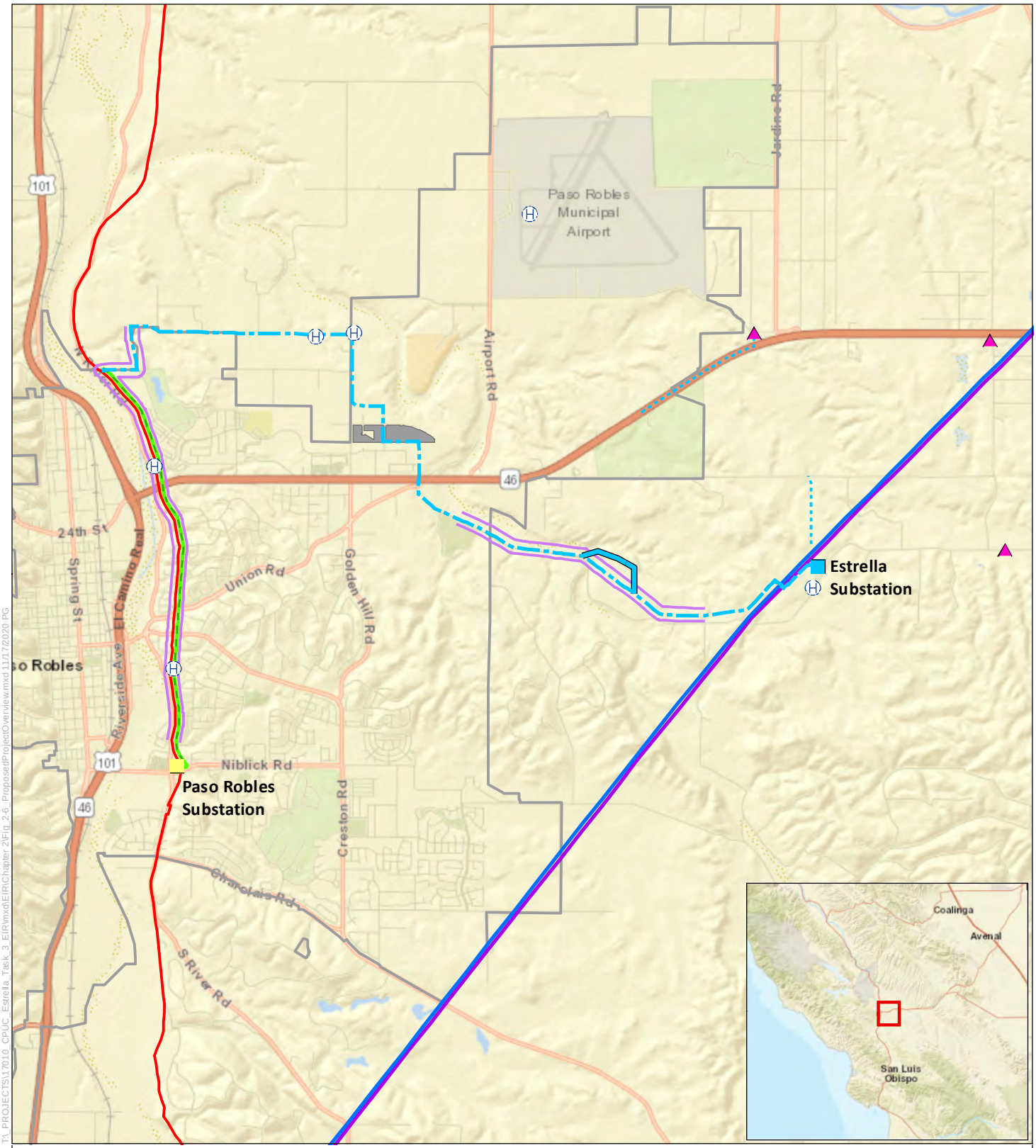
Near the Paso Robles Sports Club, the new 70 kV power line segment leaves the existing distribution alignment and crosses to the southwesterly side of Union Road. The new line continues in a northwesterly direction, crossing SR-46, and then generally traveling westerly for approximately 0.5 mile to Golden Hill Road. At Golden Hill Road, the route heads 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 would interconnect with the existing San Miguel-Paso Robles 70 kV power line.

The existing San Miguel-Paso Robles 70 kV power line would then be reconductored south to Paso Robles Substation. This 3-mile-long 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. The segment then continues southerly for about 2 miles, crossing Union and Creston Roads, then into Paso Robles Substation.

2.2.3 Reasonably Foreseeable Distribution Components

The timing of construction of the distribution components is not known but is expected within 15 years. Based on the most recent load growth forecast (see Figure 2-5), the distribution components of the Proposed Project are not presently needed and are not planned to be constructed at the same time as the rest of the Proposed Project. However, if subsequent load growth forecasts show the need arising sooner or if applications are made for new large block loads, the timing of construction of the distribution components could accelerate.

The reasonably foreseeable new distribution line segments would be installed along an existing unpaved road through agricultural fields and along existing roadways. From Estrella Substation, a new distribution line segment would extend north approximately 0.6-mile along an unpaved road to Mill Road, where it would connect with an existing 21 kV circuit. The second new distribution line segment would follow SR-46 for approximately 1.1 mile and would fill in a gap in the existing distribution network. This portion of SR-46 is largely rural in nature, with the Hunter Ranch Golf Course and agricultural parcels bordering the highway on the south. Reconductoring of existing distribution lines would occur in rural areas of San Luis Obispo County and within portions of the City of Paso Robles.



Source: ESRI 2020, NEET West and PG&E 2017

N

0 0.25 0.5 Miles

Horizon WATER and ENVIRONMENT

Proposed Project

- Estrella Substation
- 70kV Route
- New Distribution Line Segments
- 70 kV Minor Route Variation 1
- Reconductoring Segment
- Distribution Underbuild
- Power Line Staging Areas
- Helicopter Landing Zones
- Additional 21/12 kV Pad-Mounted Transformer
- Paso Robles city limits

Existing Infastructure

- Existing 500 kV Transmission Line
- Existing 230 kV Transmission Line
- Existing 70 kV Power Line
- Existing Substations

Note: Eight miles of distribution line segments would be reconductored in various locations to integrate the proposed substation. PG&E did no specify each location.

Figure 2-6
Proposed Project Location and Overview

Estrella Substation and Paso Robles Area Reinforcement Project

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2.3 Proposed Project Components

The Proposed Project is comprised of two main components: Estrella Substation and the 70 kV power line. Each of these main components has several subcomponents, which are described below. The reasonably foreseeable distribution components and ultimate substation buildout are also described below.

- Estrella Substation Components
  - HWT to construct, own and operate a new 230 kV substation with one 230/70 kV three-phase power transformer.
  - PG&E to construct, own, and operate a new 70 kV substation including room for reasonably foreseeable 70/21 kV distribution facilities.
  - PG&E to construct, own and operate a new 230 kV transmission line interconnection that will loop the existing Gates-Morro Bay 230kV into Estrella.
- 70 kV Power Line Components
  - PG&E to construct, own and operate 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.
  - PG&E will reconductor and replace poles on a portion of the existing 70 kV power line between the interconnection point of the new 70 kV power line segment and Paso Robles Substation.
- Reasonably Foreseeable Distribution Components
  - Establish three new 21 kV distribution feeders connecting from Estrella Substation to the existing distribution system, including:
    - Installing a new 30 megavolt amperes (MVA), 70/21 kV three-phase power transformer in the 70 kV substation.
    - Constructing 1.7 mile of new distribution line to fill in gaps in future Estrella Feeder #2.
    - Installing three new 21/12 kV pad-mounted transformers.
    - Reconductoring approximately 8 miles of existing distribution circuits to facilitate integration of the new Estrella feeders.

- Ultimate Substation Buildout
  - Establish additional 70 kV lines and 21 kV distribution feeders[5], as needed to meet future distribution demand and transmission needs, including the following activities within or adjacent to the Estrella Substation:
    - Constructing an additional 230 kV interconnection between the 230 kV substation and the adjacent 230 kV transmission line.
    - Installing an additional 230/70 kV transformer with associated breakers and switches.
    - Installing up to three additional 70/21 kV transformers with associated 70 kV breakers, 21 kV breakers, and switches.

A common neutral[6] would be collocated along the entire length of the 70 kV power line from Estrella Substation to Paso Robles Substation. A fiber optic line for communication services would be installed on the 70 kV power line to provide a fiber optic link between Estrella Substation and Paso Robles Substation.

The Proposed Project components, including estimated permanent ground disturbance acreages, are summarized in Table 2-5.

Table 2-5. Proposed Project Components Summary

Component	Approximate Quantity	Approximate Height Range and Average Height (Feet Above Ground)	Total Approximate Permanent Ground Disturbance (Acres)
Estrella Substation[1]			
Substations			
230 kilovolt (kV) Substation	1	65 (approx. tallest 230 kV dead-end structure)	4.0 (fenced portion)
70 kV Substation	1	37 (approx. tallest 70 kV dead-end structure)	3.5 (fenced portion)

[5] The routes of any future 70 kV power lines and 21 kV distribution lines that could be installed as part of the ultimate Estrella Substation buildout are unknown at this time. As a result, the potential environmental effects associated with the power and distribution lines are not evaluated in this DEIR. The additional equipment within Estrella Substation at ultimate buildout is included in the DEIR's evaluation.

[6] A common neutral conductor runs the entire length of the line from substation to substation where it attaches to the substation ground grids.

Component	Approximate Quantity	Approximate Height Range and Average Height (Feet Above Ground)	Total Approximate Permanent Ground Disturbance (Acres)
230 kV Transmission Line Interconnect			
Lattice Steel Towers	6	39–113 68	0.2
70 kV Power Line[2]			
New 70 kV Power Line Segment			
Light-Duty Steel Poles	63	70–110 91	0.3
Tubular Steel Poles	38	68–133 99	0.2
Wood Distribution Poles	1	46	<0.1
Reconductoring Segment			
Light-Duty Steel Poles	40	76–101 85	0.2
Tubular Steel Poles	9	71–108 88	<0.1
Wood Distribution Poles	6	48–62 56	<0.1
Reasonably Foreseeable Distribution Components[3, 4]			
Wood Distribution Poles	31	40–50 45	<0.1
21/12 kV Pad-Mounted Transformers	3	10	<0.1

Notes: kV = kilovolt;

1. Permanent ground disturbance for Estrella Substation is approximately 15 acres, including the area that would be permanently disturbed outside of the 230 kV and 70 kV substation fence lines.
2. Permanent ground disturbance for the 70 kV power line route assumes a 10-foot radius around each pole location supporting distribution equipment in grassland areas.
3. Installation of the 70/21 kV transformer and associated equipment within the Estrella Substation to support the reasonably foreseeable distribution components would not result in any new permanent ground disturbance, as it would be installed within the fence line of the substation. Reconductoring of existing distribution lines also would not result in new permanent ground-disturbance.
4. With respect to ultimate substation buildout, installation of additional transmission and distribution transformers and associated equipment within the 70 kV and 230 kV substations is assumed to not result in any additional permanent ground disturbance nor increase the height of

the substation. The additional 230 kV interconnection associated with ultimate substation buildout could result in similar ground disturbance to that described for the Proposed Project (see "230 kV Interconnect" within the table).

Source: NEET West and PG&E 2017

Figure 2-7 shows a detailed view of the Proposed Project substation and 70 kV power line components, including construction temporary impact areas (see Section 2.5.2 for discussion of temporary impact areas). As noted in Section 2.2.2, an MRV for the new 70 kV power line is under consideration to avoid a possible golden eagle nest along Huer Huero Creek near Union Road. Figure 2-8 shows this MRV in detail. Additionally, Figure 2-9 shows the reasonably foreseeable new Estrella distribution circuits (or "feeders") that are anticipated as part of the Proposed Project. Figure 2-10 shows a detailed view of the reasonably foreseeable distribution line segments and pad-mounted transformers that would need to be constructed to establish the Estrella feeders.

2.3.1 Estrella Substation

Estrella Substation would be comprised of two separate and distinct substations on an approximately 15-acre site. One 230 kV substation would be constructed and operated by HWT and one 70 kV substation would be constructed and operated by PG&E. The preliminary substation layout is provided in Figure 2-11.

Access to the Estrella Substation site would be off of Union Road, along a new private access road. The access road would be paved up to the second entrance to the 70 kV substation (approximately 715 feet) and have an aggregate-surface up to the 230 kV substation access point and the 70 kV substation would have two separate access points. The entrance gates would be a minimum 16 feet in width and would be locked and monitored remotely to limit access to qualified personnel. Warning signs would be posted on the perimeter chain-link fencing and gates, in accordance with the National Electric Safety Code (NESC) and the respective HWT and PG&E guidelines.

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

The 230 kV and 70 kV substations would have their own sources of station power. Power would be supplied by tapping into the existing PG&E Gates- Morro Bay 230kV power line adjacent to the HWT substation site. Electric service would be requested from the local utility and applied for so that power can be served from the existing power lines adjacent to the station.

The existing telecommunications network would 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 would 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 would transition underground in 4-inch conduits to the substation. All pull/splice boxes used for telecommunication cable would be 3-foot by 5-foot pre-cast polymer concrete.

230 kV Substation

The 230 kV substation would be owned and operated by HWT. The preliminary configuration for the 230 kV substation (general arrangement and profile view) is provided in Figure 2-12 and Figure 2-13. The tallest structures within the 230 kV substation would be the dead-end structures, which are approximately 65 feet high and 50 feet wide.

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

- Two 230kV Breaker and a Half bays and two operating buses
- One three-phase 230/70 kV 200 MVA transformer
- Twelve 230 and three 70 kV capacitive voltage transformers
- Thirteen 230 kV and one 70 kV group operated air break switches
- Five 230 kV and one 70 kV sulfur 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 50 feet long, 15 feet wide, and 15 feet high would be installed on 10 concrete piers measuring about 11 feet deep. The control enclosure would have redundant air conditioning units installed to protect electronic components.

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

- Dark Sky Lighting[7] and signage
- Telecommunications and distribution feeder line for electrical service

[7] Dark sky lighting refers to lights that comply with the International Dark Sky Association Fixture Seal of Approval Program. Lights compliant with this program are typically shielded on the top and sides so light does not go up to the sky and are only used when needed (use motion detectors and only the wattage necessary). Lights are typically “warm” in color, which is generally considered more yellow or orange/amber than white.

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Basebap Sources: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alignment Components
- 70kV Route
- New Distribution Line Segments
- New 70 kV Poles

Substation Components
- Substation Interconnection
- Temporary Shoofly Poles
- Substation Permanent Disturbance Area

Construction Temporary Disturbance Areas
- Helicopter Landing Zones
- Access Routes
- Substation Temporary Disturbance Area
- Temporary Pull Sites
- Pole Temporary Work Area

Existing Infrastructure
- 70kV Route
- Existing Substations
- Existing 230 kV Transmission Line
- Existing 70 kV Power Line

National Wetland Inventory
- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Figure 2-7
Estrella Substation and 70 kV Power Line Components - Detailed View
Sheet 1 of 8

Estrella Substation and Paso Robles Area Reinforcement Project

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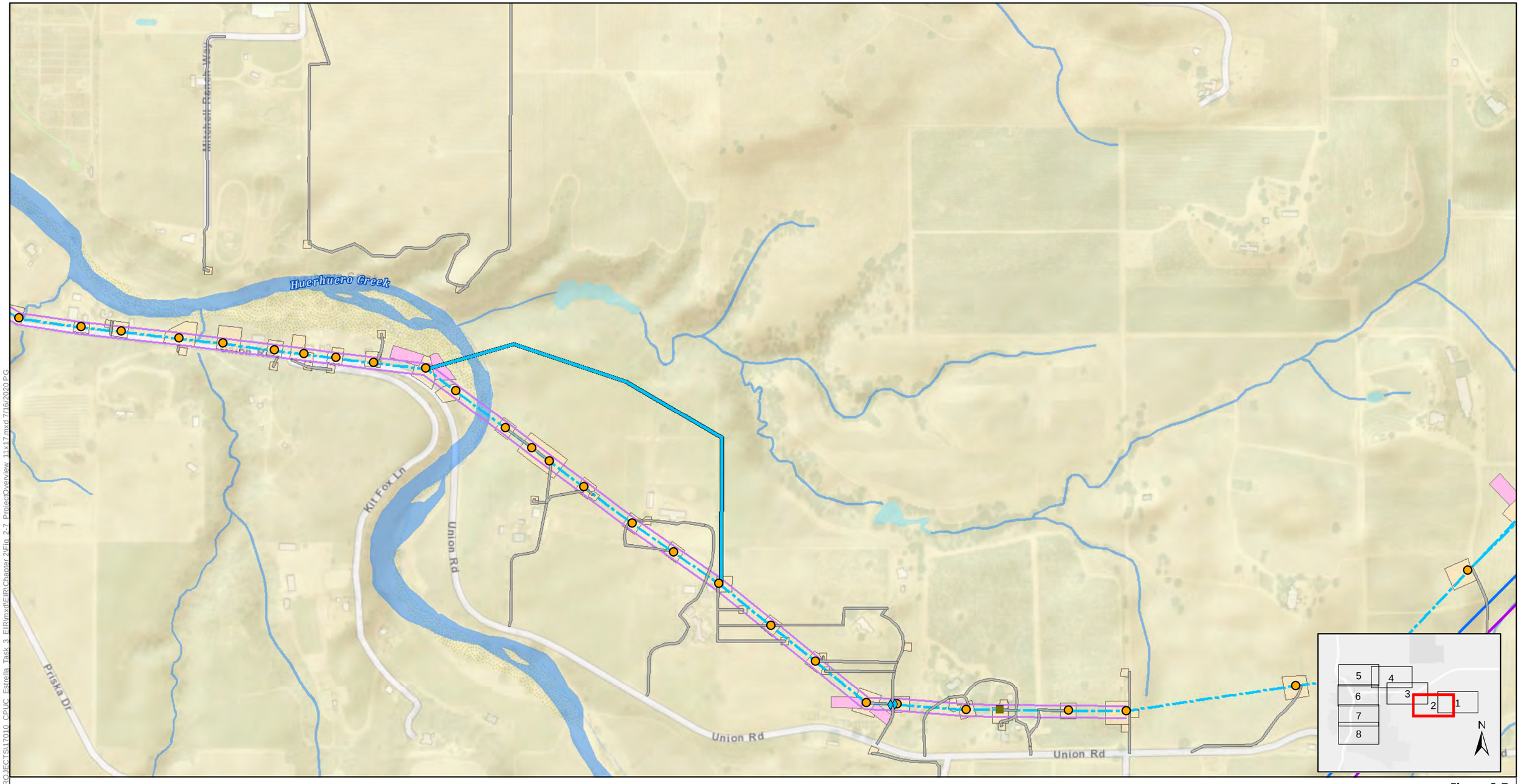

Basebap Sources: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user

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0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alignment Components

- 70kV Route
- 70 kV Minor Route Variation 1
- New 70 kV Poles
- Existing Distribution Pole to be Replaced
- Distribution Underbuild

Substation Components

- Substation Interconnection
- Temporary Shoofly Poles
- Substation Permanent Disturbance Area

Construction Temporary Disturbance Areas

- Temporary Crossing Structure Work Area
- Access Routes
- Temporary Pull Sites
- Pole Temporary Work Area

Existing Infrastructure

- 70kV Route
- Existing Substations
- Existing 230 kV Transmission Line
- Existing 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Figure 2-7
Estrella Substation and 70 kV Power Line Components - Detailed View
Sheet 2 of 8

Estrella Substation and Paso Robles Area Reinforcement Project

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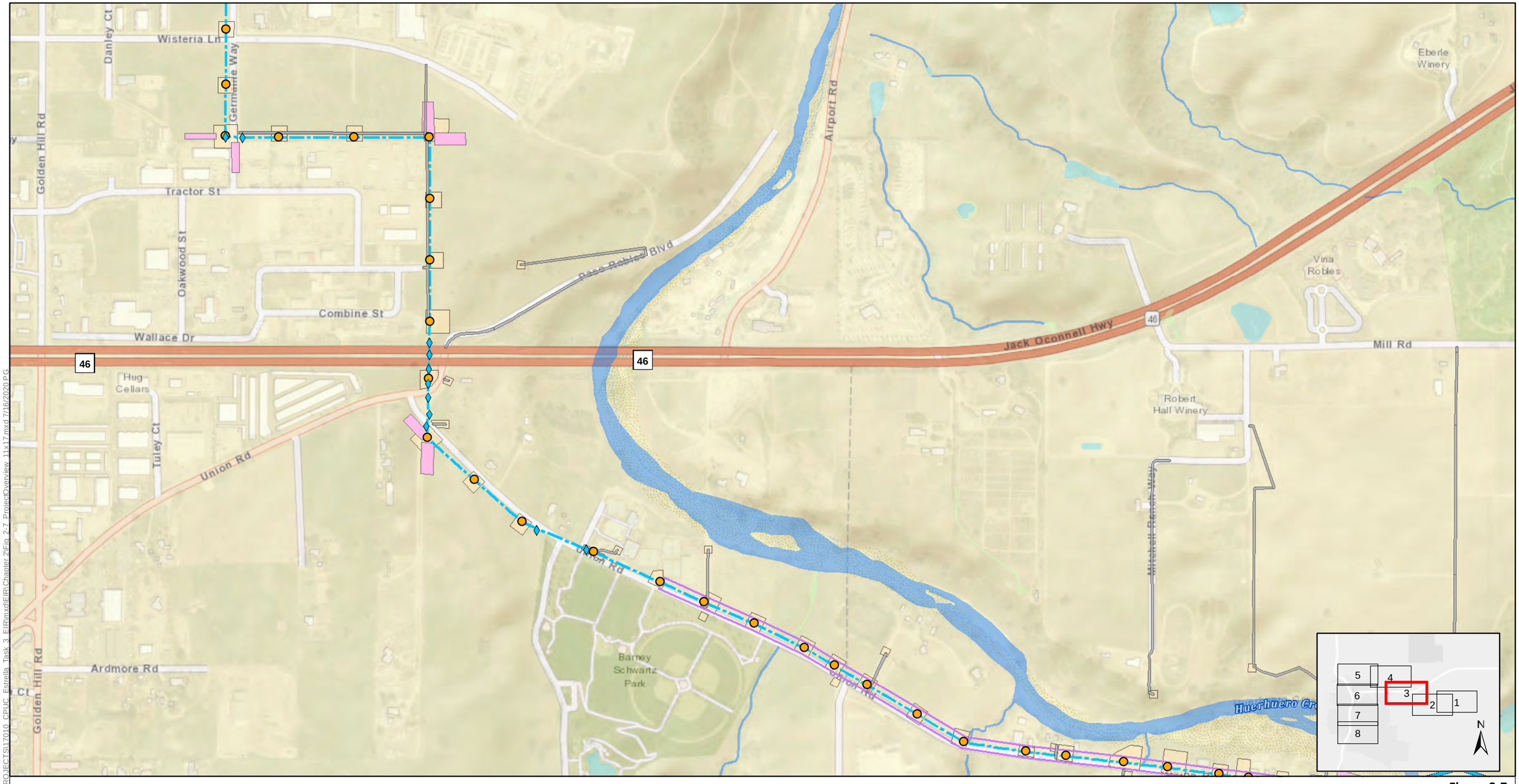

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Basebap Sources: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user

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0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alignment Components

- 70kV Route
- 70 kV Minor Route Variation 1
- New 70 kV Poles
- Distribution Underbuild

Substation Components

- Substation Interconnection
- Temporary Shoofly Poles
- Substation Permanent Disturbance Area

Construction Temporary Disturbance Areas

- Temporary Crossing Structure Work Area
- Access Routes
- Temporary Pull Sites
- Pole Temporary Work Area

Existing Infrastructure

- 70kV Route
- Existing Substations
- Existing 230 kV Transmission Line
- Existing 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Figure 2-7
Estrella Substation and
70 kV Power Line Components -
Detailed View
Sheet 3 of 8

Estrella Substation and
Paso Robles Area
Reinforcement Project

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Cava Robles
RV Park
(aerial outdated)

Basebap Sources: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user

N

0 125 250 500
Feet

Horizon WATER and ENVIRONMENT

Alignment Components
- 70kV Route
- New 70 kV Poles

Substation Components
- Substation Interconnection
- Temporary Shoofly Poles
- Substation Permanent Disturbance Area

Construction Temporary Disturbance Areas
- Temporary Crossing Structure Work Area
- Helicopter Landing Zones
- Access Routes
- Temporary Pull Sites
- Pole Temporary Work Area

Existing Infrastructure
- 70kV Route
- Existing Substations
- Existing 230 kV Transmission Line
- Existing 70 kV Power Line

National Wetland Inventory
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 2-7
Estrella Substation and
70 kV Power Line Components -
Detailed View
Sheet 4 of 8

Estrella Substation and
Paso Robles Area
Reinforcement Project

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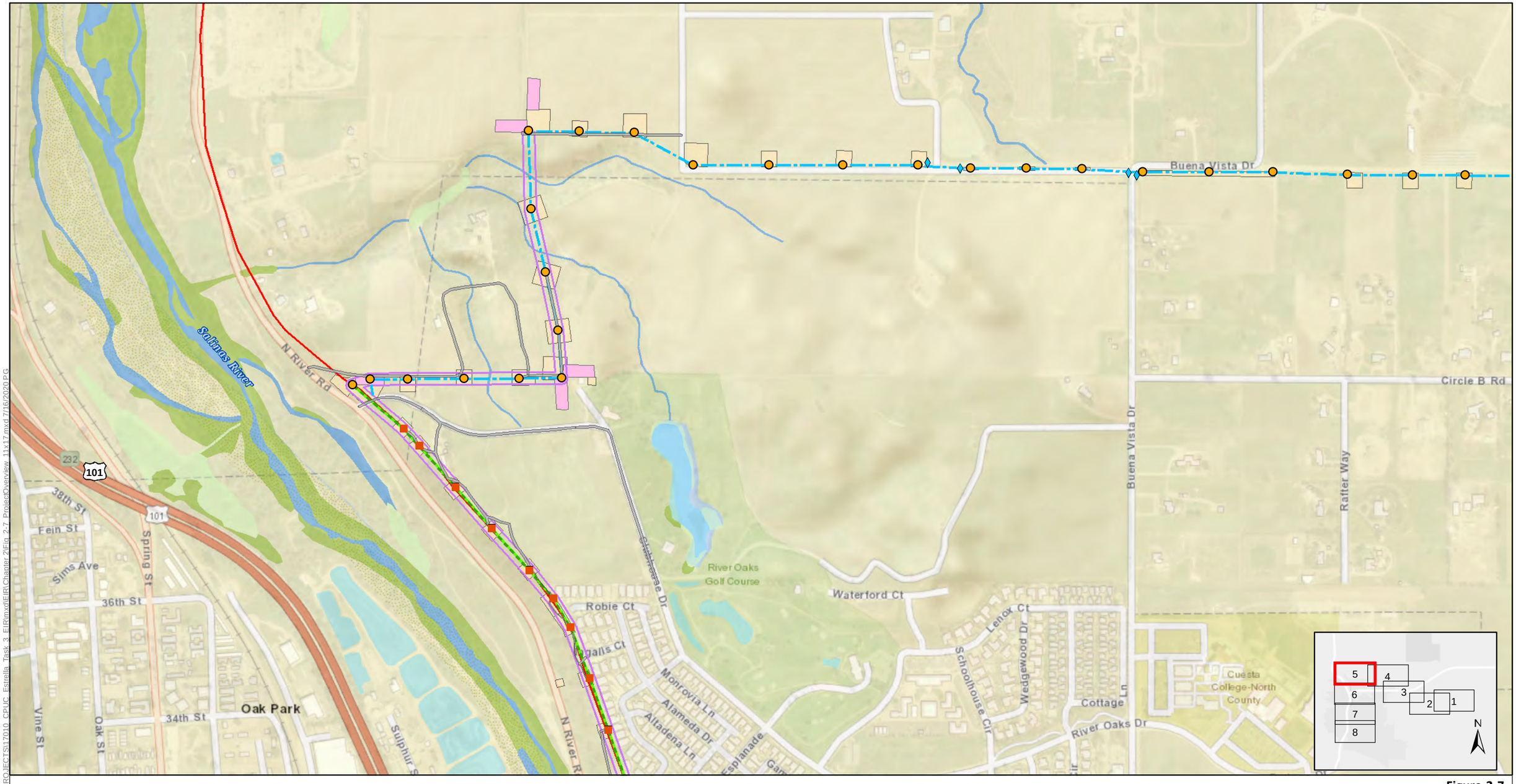

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Basebap Sources: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alignment Components

- 70kV Route
- New 70 kV Poles
- Existing 70 kV Pole to be Replaced
- Reconductoring Segment
- Distribution Underbuild

Substation Components

- Substation Interconnection
- Temporary Shoofly Poles
- Substation Permanent Disturbance Area

Construction Temporary Disturbance Areas

- Temporary Crossing Structure Work Area
- Access Routes
- Temporary Pull Sites
- Pole Temporary Work Area

Existing Infrastructure

- 70kV Route
- Existing Substations
- Existing 230 kV Transmission Line
- Existing 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 2-7
Estrella Substation and 70 kV Power Line Components - Detailed View
Sheet 5 of 8

Estrella Substation and Paso Robles Area Reinforcement Project

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Basebap Sources: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alignment Components

- Existing 70 kV Pole to be Replaced
- Reconductoring Segment
- Existing Distribution Pole to be Replaced
- Distribution Underbuild

Substation Components

- Substation Interconnection
- Temporary Shoofly Poles
- Substation Permanent Disturbance Area

Construction Temporary Disturbance Areas

- Temporary Crossing Structure Work Area
- Helicopter Landing Zones
- Access Routes
- Temporary Pull Sites
- Pole Temporary Work Area

Existing Infrastructure

- Existing Substations
- Existing 230 kV Transmission Line
- Existing 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 2-7

Estrella Substation and 70 kV Power Line Components - Detailed View

Sheet 6 of 8

Estrella Substation and Paso Robles Area Reinforcement Project

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Basebap Sources: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alignment Components

- Existing 70 kV Pole to be Replaced
- Reconductoring Segment
- Existing Distribution Pole to be Replaced
- Distribution Underbuild

Substation Components

- Substation Interconnection
- Temporary Shoofly Poles
- Substation Permanent Disturbance Area

Construction Temporary Disturbance Areas

- Temporary Crossing Structure Work Area
- Helicopter Landing Zones
- Access Routes
- Temporary Pull Sites
- Pole Temporary Work Area

Existing Infrastructure

- Existing Substations
- Existing 230 kV Transmission Line
- Existing 70 kV Power Line

National Wetland Inventory

- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 2-7
Estrella Substation and 70 kV Power Line Components - Detailed View
Sheet 7 of 8

Estrella Substation and Paso Robles Area Reinforcement Project

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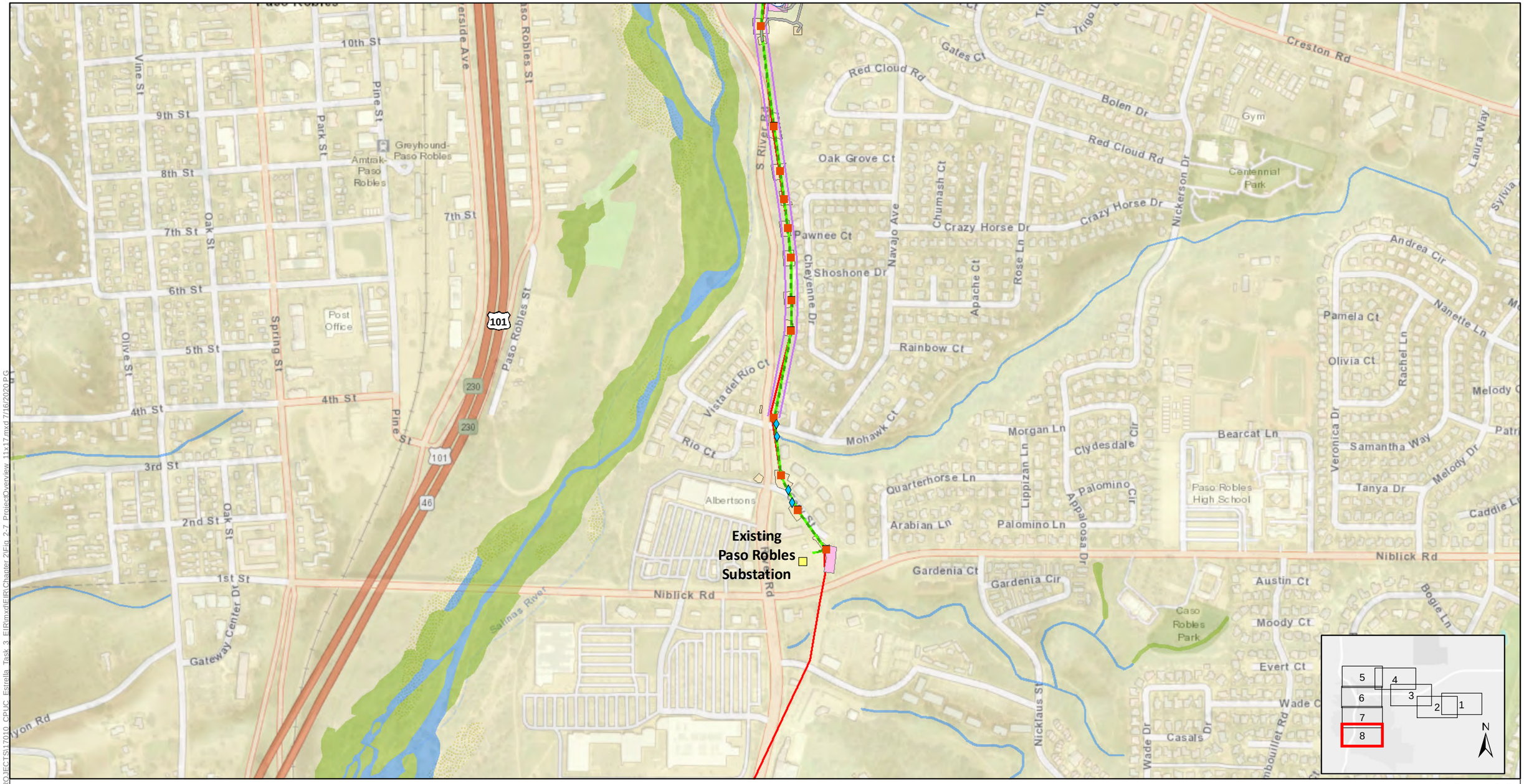

Basebap Sources: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alignment Components

- Existing 70 kV Pole to be Replaced
- Reconductoring Segment
- Distribution Underbuild

Substation Components

- Substation Interconnection
- Temporary Shoofly Poles
- Substation Permanent Disturbance Area

Construction Temporary Disturbance Areas

- Temporary Crossing Structure Work Area
- Helicopter Landing Zones
- Access Routes
- Temporary Pull Sites
- Pole Temporary Work Area

Existing Infrastructure

- Existing Substations
- Existing 230 kV Transmission Line
- Existing 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 2-7
Estrella Substation and 70 kV Power Line Components - Detailed View
Sheet 8 of 8

Estrella Substation and Paso Robles Area Reinforcement Project

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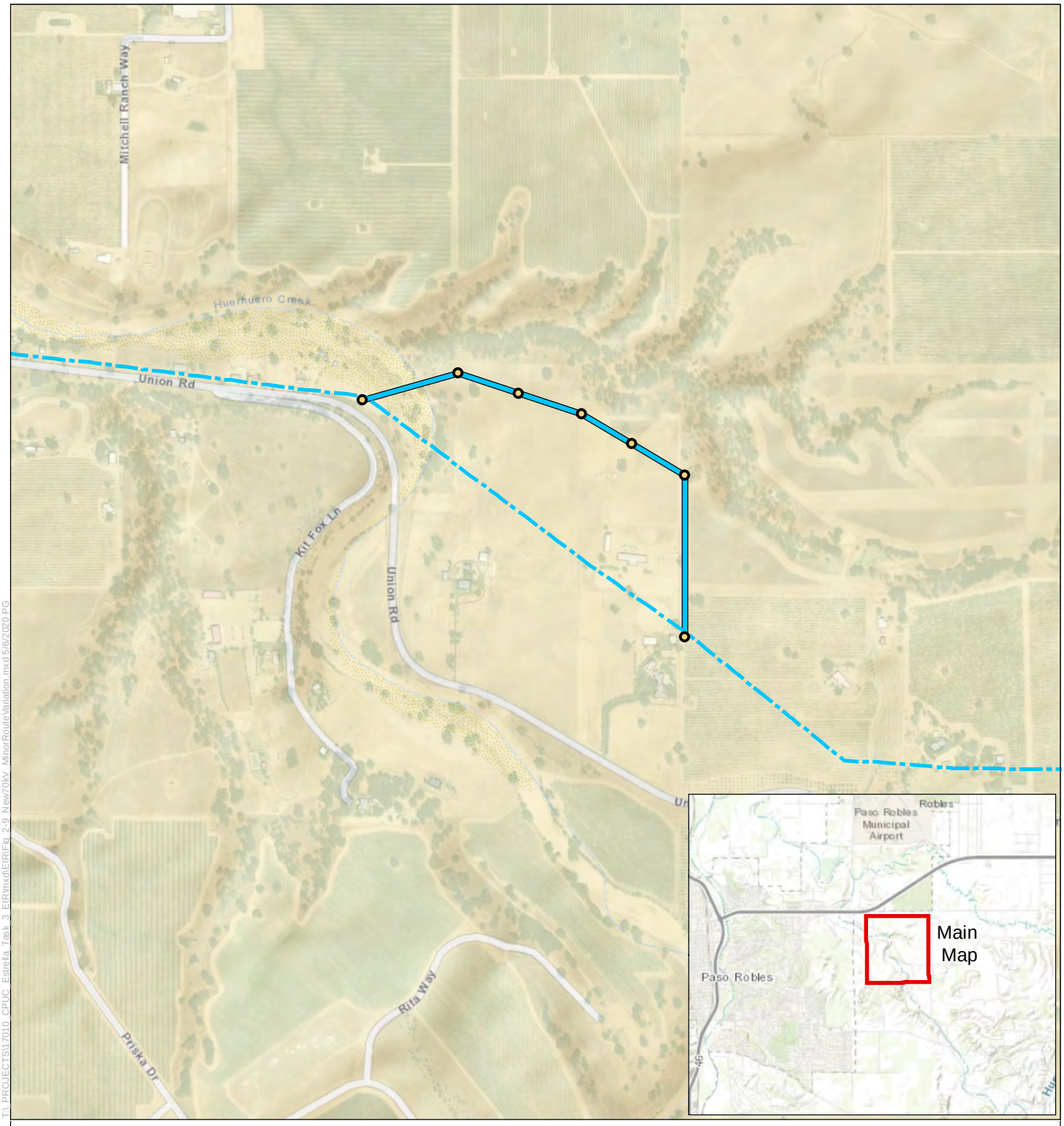

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Source: Paso Robles General Plan 2018, PG&E 2019, SWCA 2017

Proposed Project Components

- 70kV Route
- 70 kV Minor Route Variation 1
- Minor Route Variation Poles

N

0 1,000

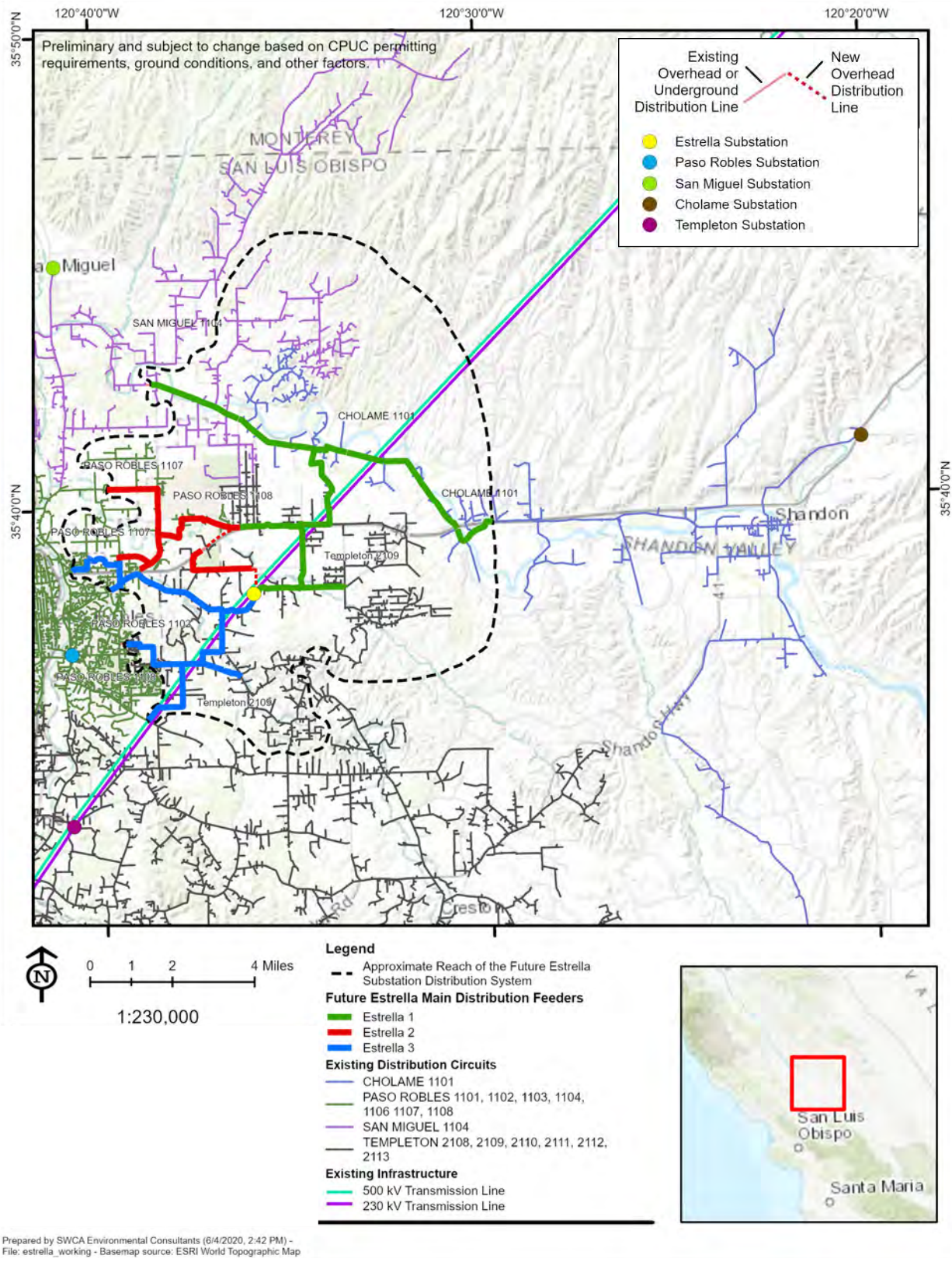
Feet

Figure 2-8

New 70 kV Power Line Minor Route Variation

Horizon WATER and ENVIRONMENT

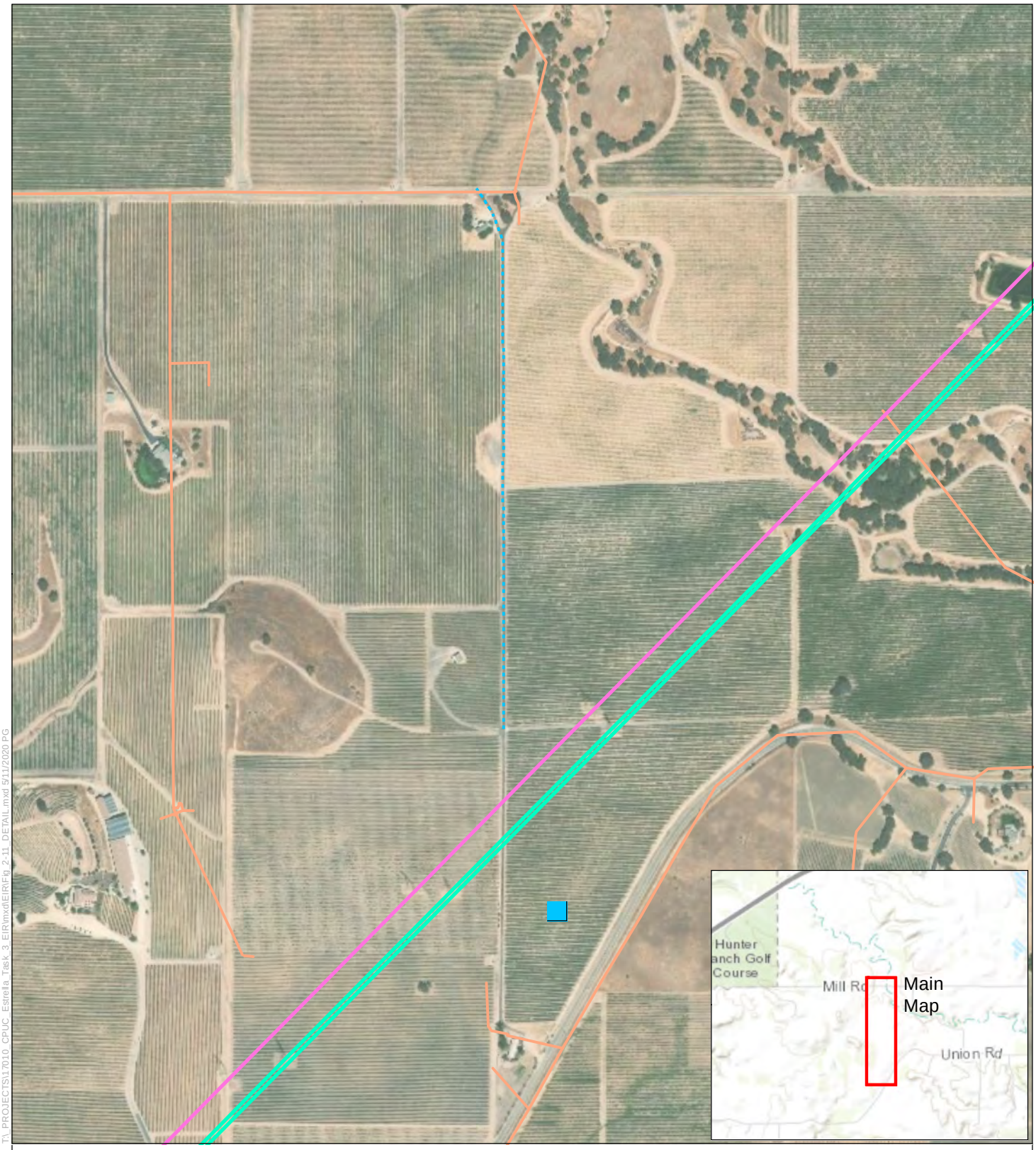
Estrella Substation and Paso Robles Area Reinforcement Project



Source: NEET West and PG&E 2020

Figure 2-9.
Reasonably Foreseeable
New Estrella Distribution Circuits

Estrella Substation and Paso Robles Area Reinforcement Project



Source: ESRI 2020, PG&E 2019, SWCA 2017

N

0 300 600
Feet

Proposed Project

- New Distribution Line Segments
- Estrella Substation

Existing Infrastructure

- Existing Overhead or Underground Distribution Line
- 230 kV Transmission Line
- 500 kV Transmission Line

Figure 2-10
New Distribution Line Segments and 21/12 kV Pad-Mounted Transformers - Detail

Horizon WATER and ENVIRONMENT

Source: ESRI 2020, PG&E 2019, SWCA 2017

N

0 300 600
Feet

Proposed Project

Additional 21/12 kV Pad-Mounted Transformer

New Distribution Line Segments

Existing Infrastructure

Existing Overhead or Underground Distribution Line

Figure 2-10
New Distribution Line Segments and 21/12 kV Pad-Mounted Transformers - Detail

Horizon WATER and ENVIRONMENT

Source: ESRI 2020, PG&E 2019, SWCA 2017

N

0 50 100
Feet

Proposed Project

Additional 21/12 kV Pad-Mounted Transformer

New Distribution Line Segments

Existing Infrastructure

Existing Overhead or Underground Distribution Line

Figure 2-10
New Distribution Line Segments and 21/12 kV Pad-Mounted Transformers - Detail

Horizon WATER and ENVIRONMENT

Estrella Substation and
Paso Robles Area Reinforcement Project

Source: ESRI 2020, PG&E 2019, SWCA 2017

Proposed Project

Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

Existing Overhead or Underground Distribution Line

N

0 50 100

Feet

Figure 2-10

New Distribution Line Segments and 21/12 kV Pad-Mounted Transformers - Detail

Horizon WATER and ENVIRONMENT

Source: ESRI 2020, PG&E 2019, SWCA 2017

N

0 50 100
Feet

Proposed Project

Additional 21/12 kV Pad-Mounted Transformer

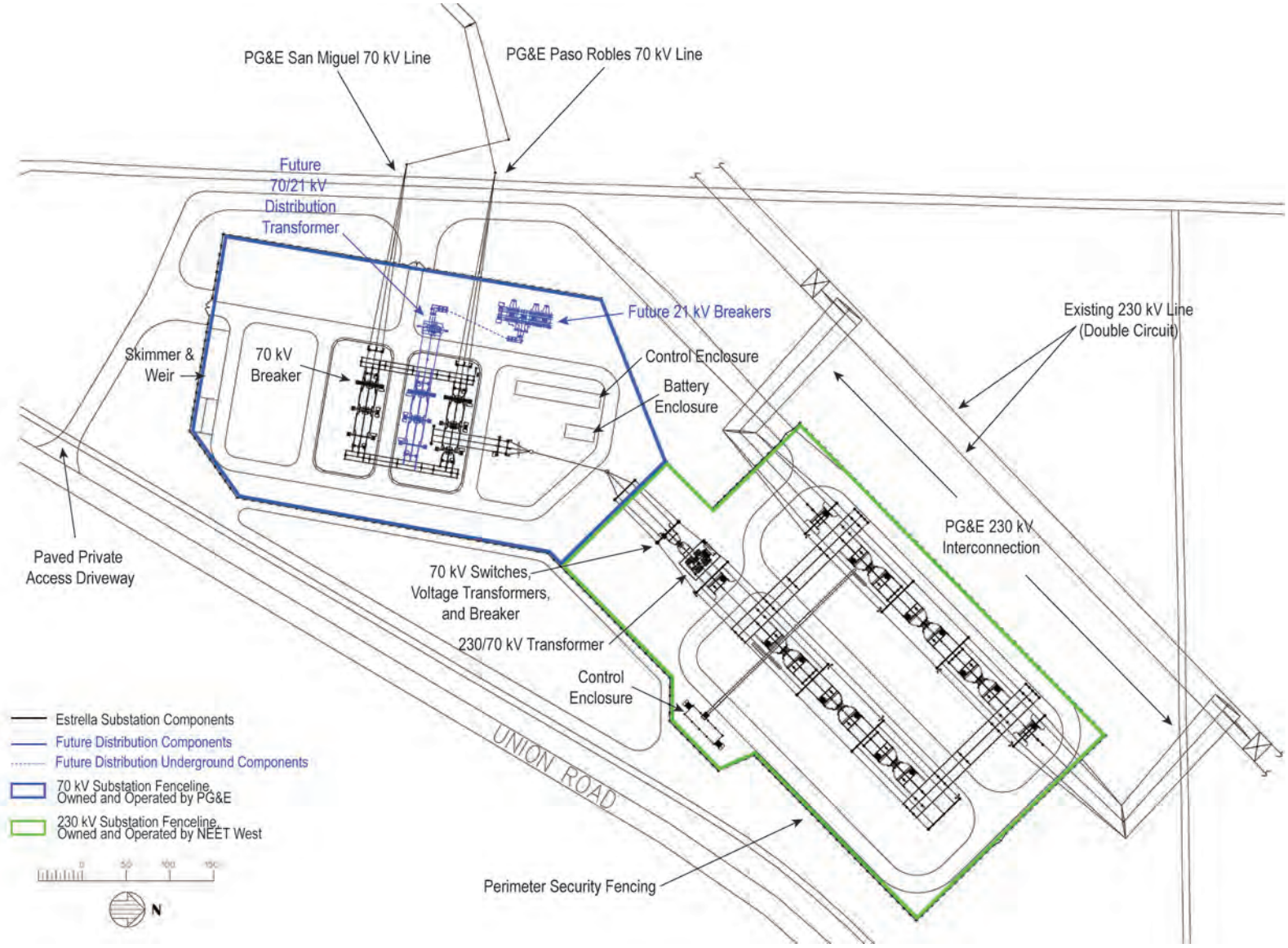
Existing Infrastructure

Existing Overhead or Underground Distribution Line

Figure 2-10
New Distribution Line Segments and 21/12 kV Pad-Mounted Transformers - Detail

Estrella Substation and Paso Robles Area Reinforcement Project

Horizon WATER and ENVIRONMENT

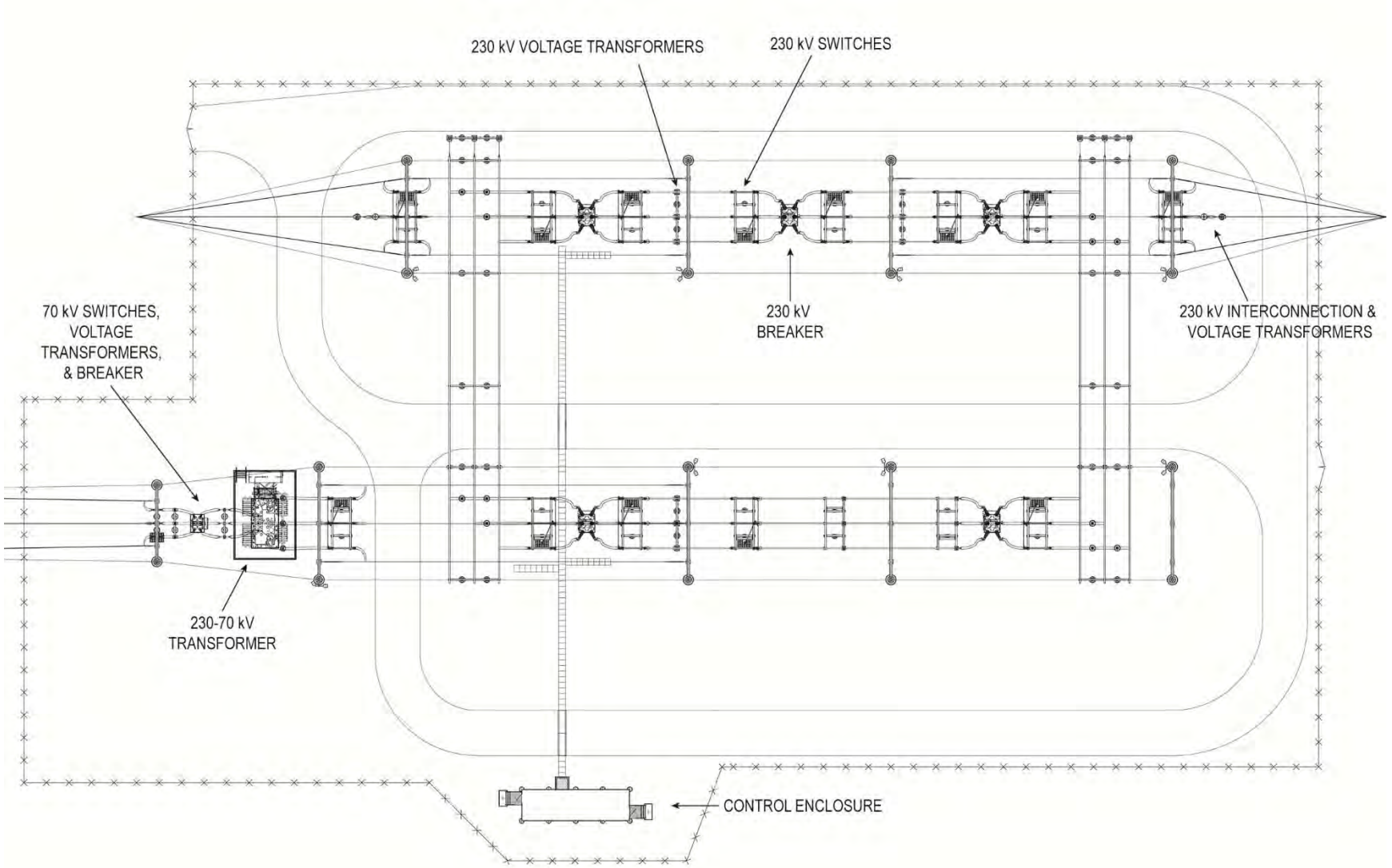


Source: NEET West and PG&E 2017

Figure 2-11.
Preliminary Substation Layout

Estrella Substation and Paso Robles Area Reinforcement Project

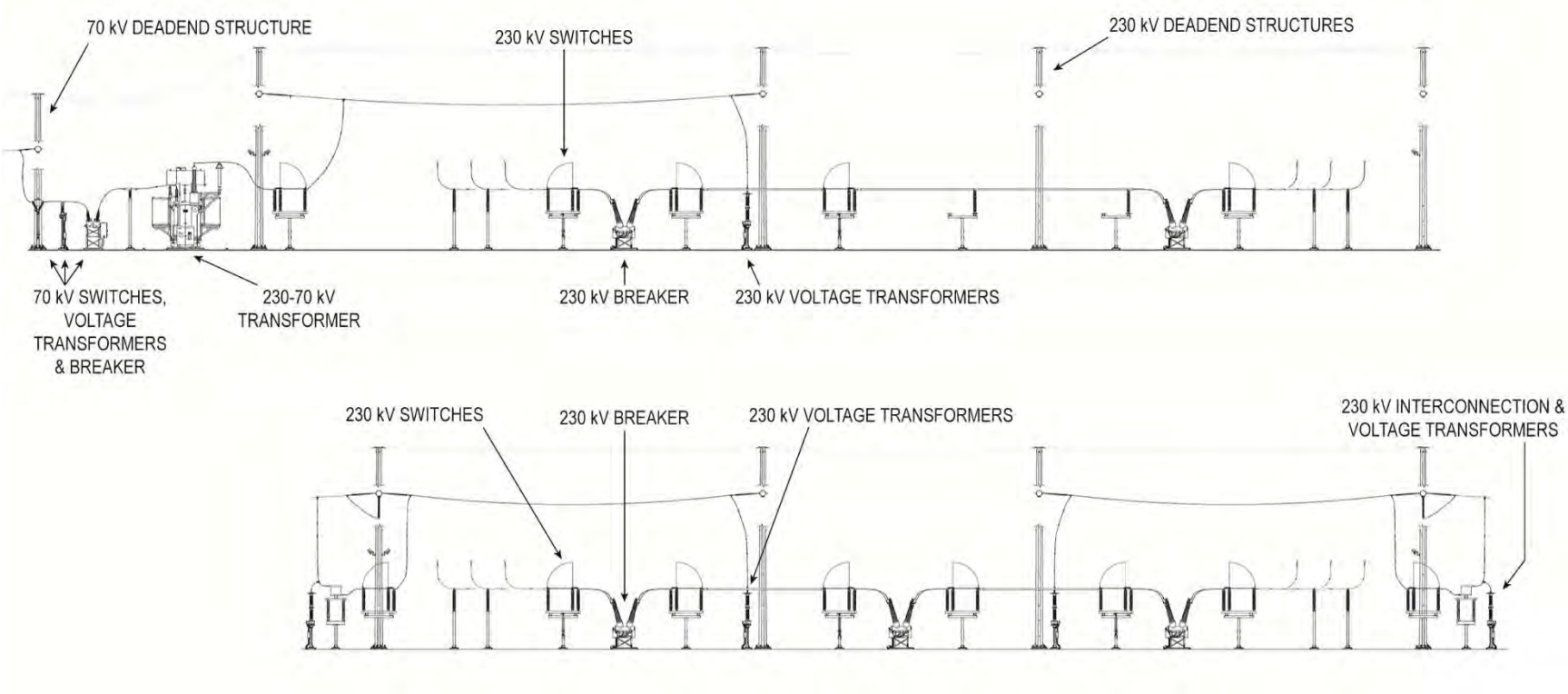
Prepared by:
Horizon
WATER and ENVIRONMENT



Source: NEET West and PG&E 2017

Figure 2-12.
Proposed 230 Kilovolt Substation General Arrangement

Estrella Substation and Paso Robles
Area Reinforcement Project



Source: NEET West and PG&E 2017

Figure 2-13.
Proposed 230 Kilovolt Substation Profile View

Estrella Substation and Paso Robles Area Reinforcement Project

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

The maximum amount of mineral oil required for the three-phase 230/70 kV transformer would be approximately 16,000 to 18,000 gallons. The mineral oil would be utility grade. The 230 kV substation would be constructed with a concrete secondary containment basin (measuring approximately 45 by 34 by 2.5 feet) to provide mineral oil containment for the transformer and would 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 would be visually inspected for any contamination before allowing to drain off site through existing drainage swales along Union Road.

The 230 kV substation would 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 would 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) would 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 would be direct embedded up to approximately 6 feet. If undergrounded, the back-up power and communications would be brought into the 230 kV substation using up to three underground conduits.

230 kV Transmission Interconnection

The 230 kV transmission line interconnection would be owned and operated by PG&E. It would connect the existing 230 kV transmission line to Estrella Substation in two separate locations: a northern and a southern interconnection (refer to Figure 2-11). The 230 kV interconnection structures include LSTs (lattice steel tower) similar to the existing 230 kV transmission line towers. Figure 2-14 shows a representation of the LSTs to be used for the 230 kV interconnection.

The northern interconnection into Estrella Substation would 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 would continue southwesterly within the existing 230 kV alignment for approximately 60 feet until reaching a new LST. From this point, the northeasterly interconnection would head southeasterly for approximately 180 feet to a new LST. From this tower, the northern interconnection would head southwesterly, terminating at the northerly 230 kV pulloff structure within Estrella Substation.

The southern interconnection would leave the southerly 230 kV pulloff structure within Estrella Substation, heading southwesterly for approximately 60 feet to a new LST. From this tower, the southern interconnection would 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 would follow the existing 230 kV alignment approximately 60 feet southwesterly to a new LST. This final tower would interset in the existing 230 kV conductor and complete the 230 kV interconnection.

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

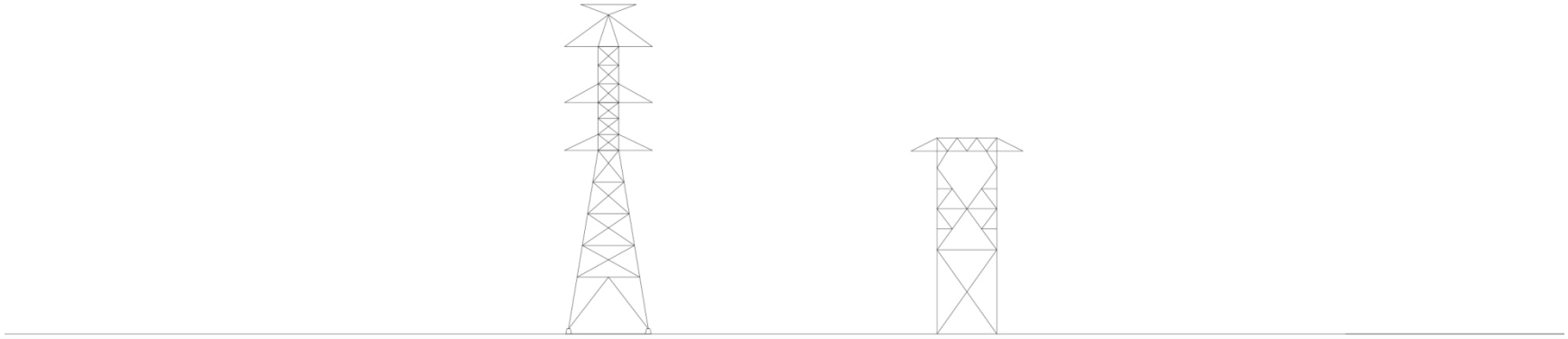
70 kV Substation

The 70 kV substation would be owned and operated by PG&E. The proposed configuration of the 70 kV substation (general arrangement and profile view) is shown in Figure 2-15 and Figure 2-16. The tallest structures within the 70 kV substation, other than the poles supporting the 70 kV power lines, would be the dead-end structures, which are approximately 37 feet high and 28 feet wide.

The following major electrical equipment would 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 would be installed on a concrete pad measuring about 3 feet deep. The exterior of the control enclosure would have an air conditioning unit installed to protect electronic components.

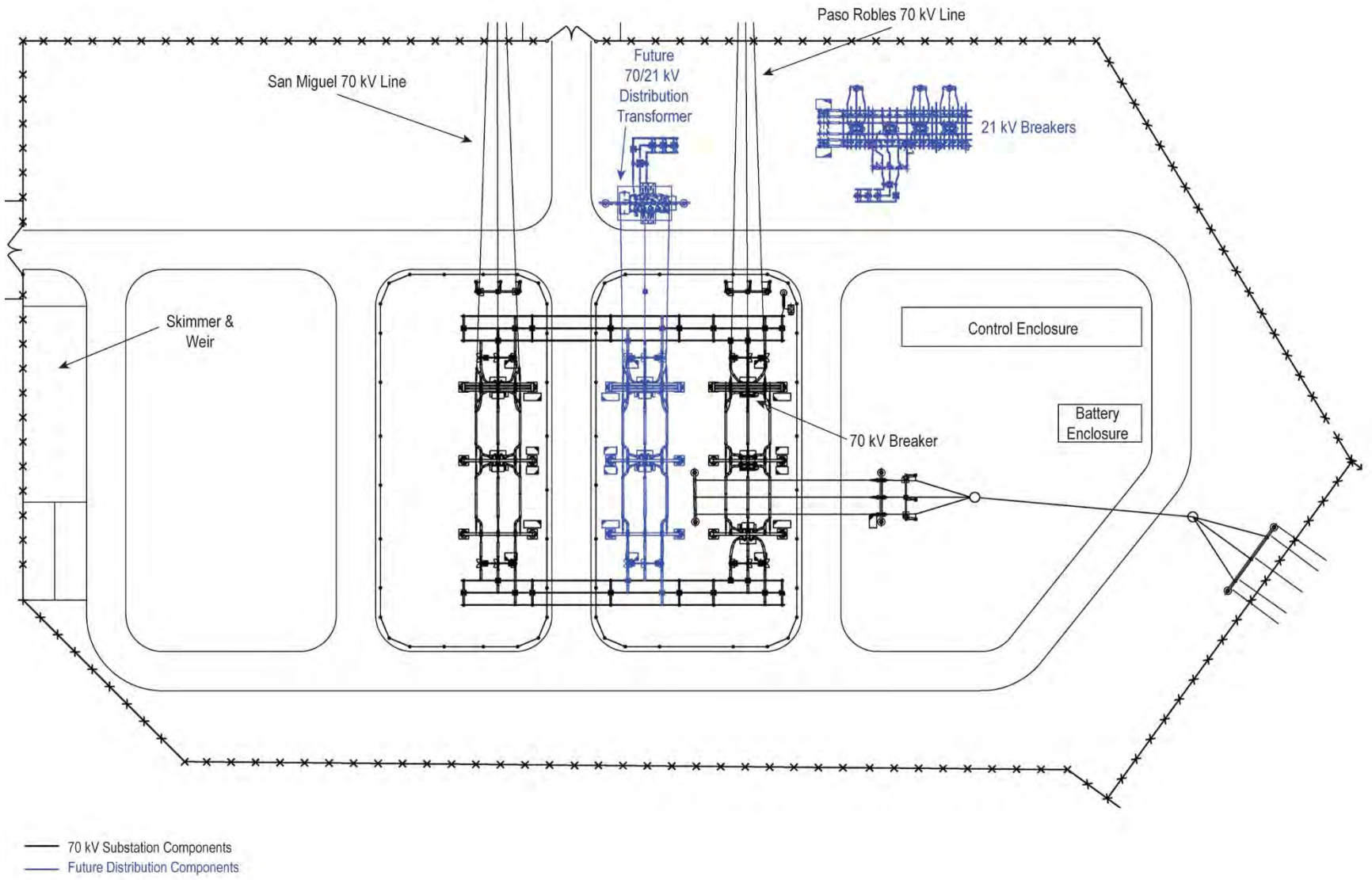
Note: Not to scale. LSTs measure approximately 25 by 25 feet at base.



Source: NEET West and PG&E 2017

Figure 2-14.
Typical Structure Diagram - 230 Kilovolt Interconnection

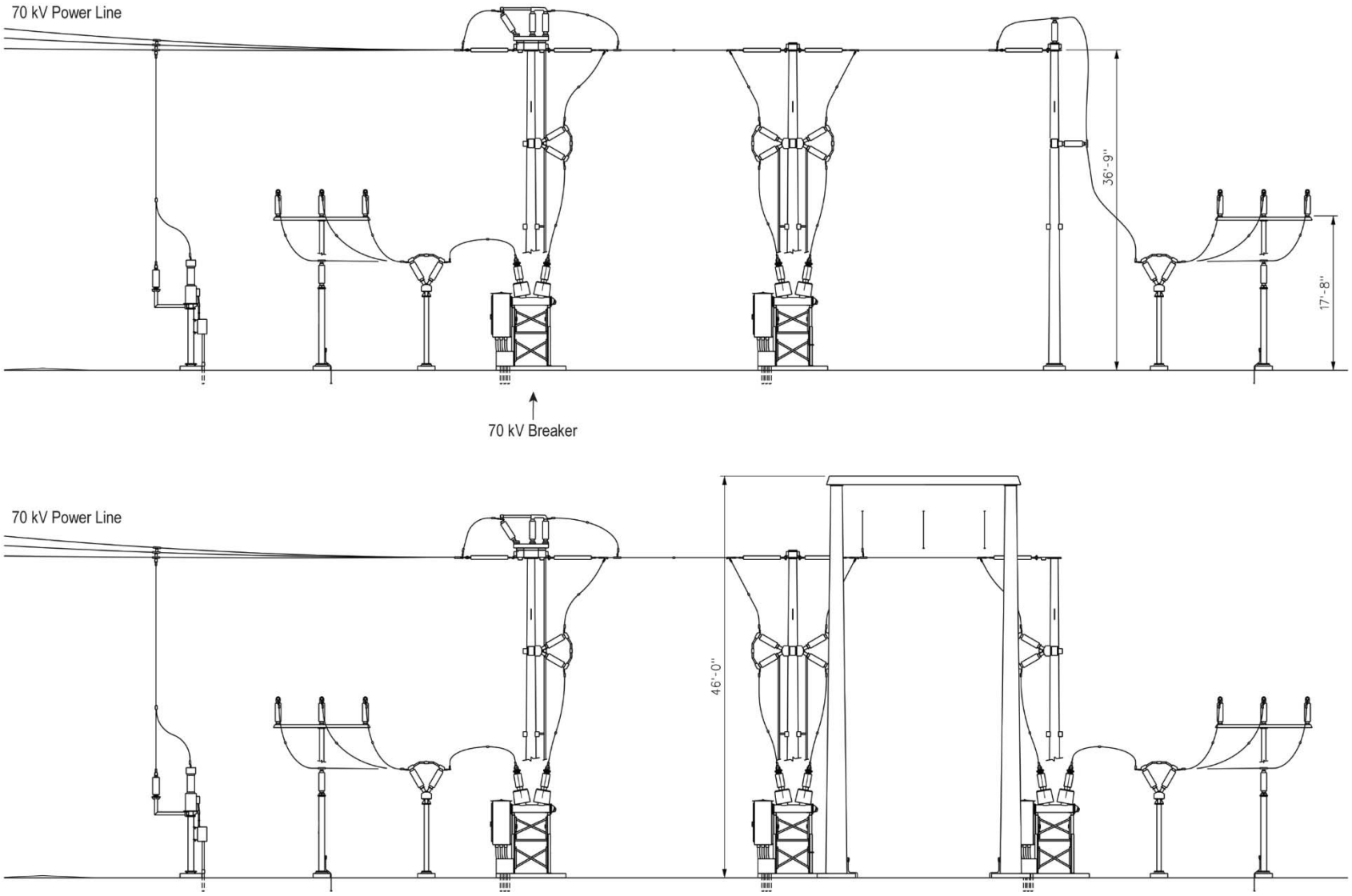
Estrella Substation and Paso Robles Area
Reinforcement Project



Source: NEET West and PG&E 2017

Figure 2-15.
Proposed 70 Kilovolt Substation General Arrangement

Estrella Substation and Paso Robles Area
Reinforcement Project



Source: NEET West and PG&E 2017

Figure 2-16.
Proposed 70 Kilovolt Substation Profile View

Estrella Substation and Paso Robles Area
Reinforcement Project

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

- Dark sky lighting[8] and signage
- Battery enclosure
- Paved internal access road
- Concrete skimmer/weir
- Perimeter security fencing

The fenced portion of the 70 kV substation would measure approximately 3.5 acres within the parcel acquired from HWT. An approximately 8-foot-tall chain-link fence with additional 1-1/2 foot of barbed and concertina wire would be installed around the remaining perimeter of the 70 kV substation.

The 70 kV substation would not store mineral oil. A concrete skimmer and weir device (flow measurement device) would 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.

2.3.2 70 kV Power Line

The new 70 kV power line and reconductoring segments would use a combination of tubular steel poles (TSPs) and light-duty steel poles (LDSPs) for support. LDSPs would have a surface treatment designed to render the appearance of a natural weathering of a wood pole. Figure 2-17 shows typical drawings of each structure type.

Power line structures would vary in height depending on their location and purpose, but typically would range between 80 to 90 feet. Table 2-5 contains approximate height range and average height of power line alignment poles by structure type. The approximate distance from the ground to the lowest conductor is 29 feet. 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 would 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 would use overhead aluminum electrical conductors, which, when installed, typically have a shiny surface appearance. This “reflective” or “specular” surface can make a power line more noticeable in appearance against the background landscape, and therefore more visible to small aircraft pilots that fly over the area. Observations by PG&E and other utilities indicate that specular conductor transitions to non-specular (i.e., becomes less shiny) in the course of a few seasons after installation. The new conductors would be installed to meet or exceed the minimum separation

[8] Refer to footnote 7 above for discussion of dark sky lighting.

distances and ground clearances in accordance with CPUC G.O. 95 and would meet raptor safety requirements.

A more detailed description of the required structures and the associated conductors for the new 70 kV power line and reconductoring segment is provided below.

New 70 kV Power Line Segment

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

The remainder of the new 70 kV power line segment would utilize both TSPs and LDSPs. These structures would 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 would be installed generally in locations where the alignment changes direction. The route would utilize an average span length of approximately 300 to 500 feet.

Structures along the new 70 kV power line segment would 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 in diameter. Three conductors would be installed on each side of the structures and would be arranged in a vertical configuration. The overhead conductor would be attached to the structures using six post insulators or insulator strings (three per circuit) for tangent configurations, and up to 12 insulator strings (six per circuit) for dead-end configurations.

Reconductoring Segment

Reconductoring and pole replacement would occur on approximately 3 miles of single-circuit 70 kV power line using a combination of TSPs and LDSPs. LDSPs would typically be used in locations where the alignment is generally straight, and either guyed[9] LDSPs or TSPs would be used in locations where the alignment changes direction or where distribution tap spans are supported on line structures.

Anchors and guy wires would be attached to LDSPs and/or wood poles in locations where additional stability is required to support the conductor tension. The new replacement poles would typically be installed within 10 feet of the existing poles, which would result in a typical pole span length of approximately 300 feet.

[9] A guy is a tensioned cable designed to add stability to a free-standing structure. One end of the guy is attached to the structure, and the other is anchored to the ground at some distance from the pole or tower base. The tension in the diagonal guy-wire, combined with the compression and buckling strength of the structure, allows the structure to withstand lateral loads such as wind or the weight of cantilevered structures.

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

Distribution Lines and Common Neutral

In locations where existing distribution lines are located in close proximity to the 70 kV power line alignment, the distribution conductors may be collocated on the power line structures. The existing conductors would 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 would be replaced with an equivalent conductor. In addition, to meet PG&E power line design standards, a common neutral would be collocated along the entire length from Estrella Substation to Paso Robles Substation.

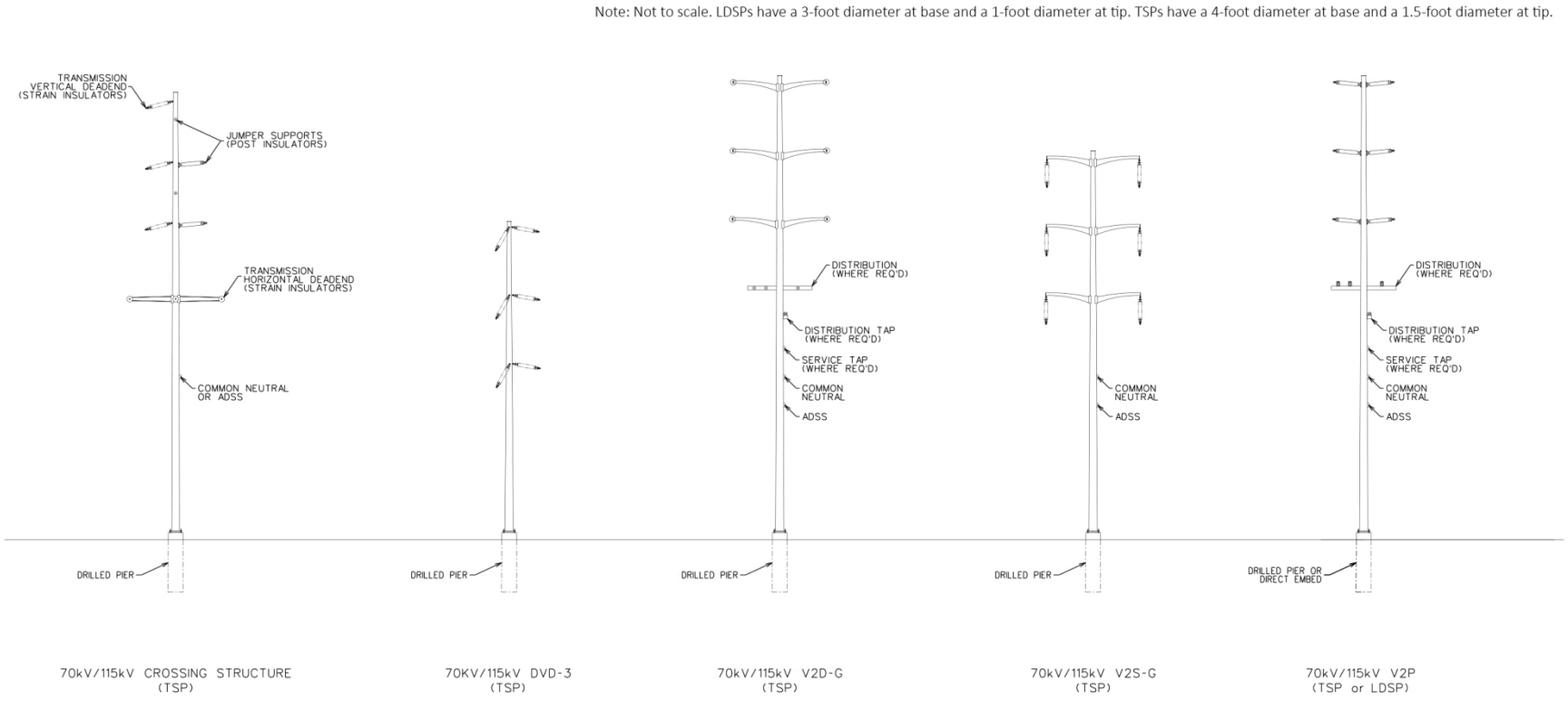
2.3.3 Reasonably Foreseeable Distribution Components

Given that new overhead distribution lines are typically supported by 18 poles per mile, the 1.7 miles of reasonably foreseeable new distribution line would require about 31 new wood poles. It is possible that some existing poles also would need to be replaced to support the reconductored circuits. New wood poles would likely be direct-bury poles (not requiring a foundation) and would require approximately 3 square feet of permanent ground disturbance per pole. The 70/21 kV transformer that would be installed within the 70 kV portion of the Estrella Substation as part of the reasonably foreseeable distribution components would include mineral oil and a concrete secondary containment basin.

2.3.4 Ultimate Substation Buildout

The equipment and facilities associated with ultimate substation buildout would primarily be placed within the fence line of the already-constructed Estrella Substation. The anticipated layout of the Estrella Substation at ultimate buildout is shown in Figure 2-18. The additional 230/70 kV transformer under ultimate buildout is assumed to include the same amount of mineral oil (16,000 to 18,000 gallons) as described for the Proposed Project (see Section 2.3.1), and the same secondary containment structure (i.e., designed to allow sufficient freeboard to include the oil volume of the transformer plus the precipitation from a 25-year, 24-hour storm event). The additional 230 kV interconnection is assumed to include similar structures (LSTs) and follow a similar interconnection process to that described for the Proposed Project in Section 2.3.1 under the header for “230 kV Transmission Interconnection.” The additional 70/21 kV transformers that may be installed to support additional distribution feeders are assumed to include secondary containment, as necessary to contain spills of any stored mineral oil.

While ultimate buildout of the Estrella Substation could add six additional distribution feeders (for a total of nine from the substation), as well as additional 70 kV power lines, the routes, lengths, and associated characteristics of these components are unknown at this time.

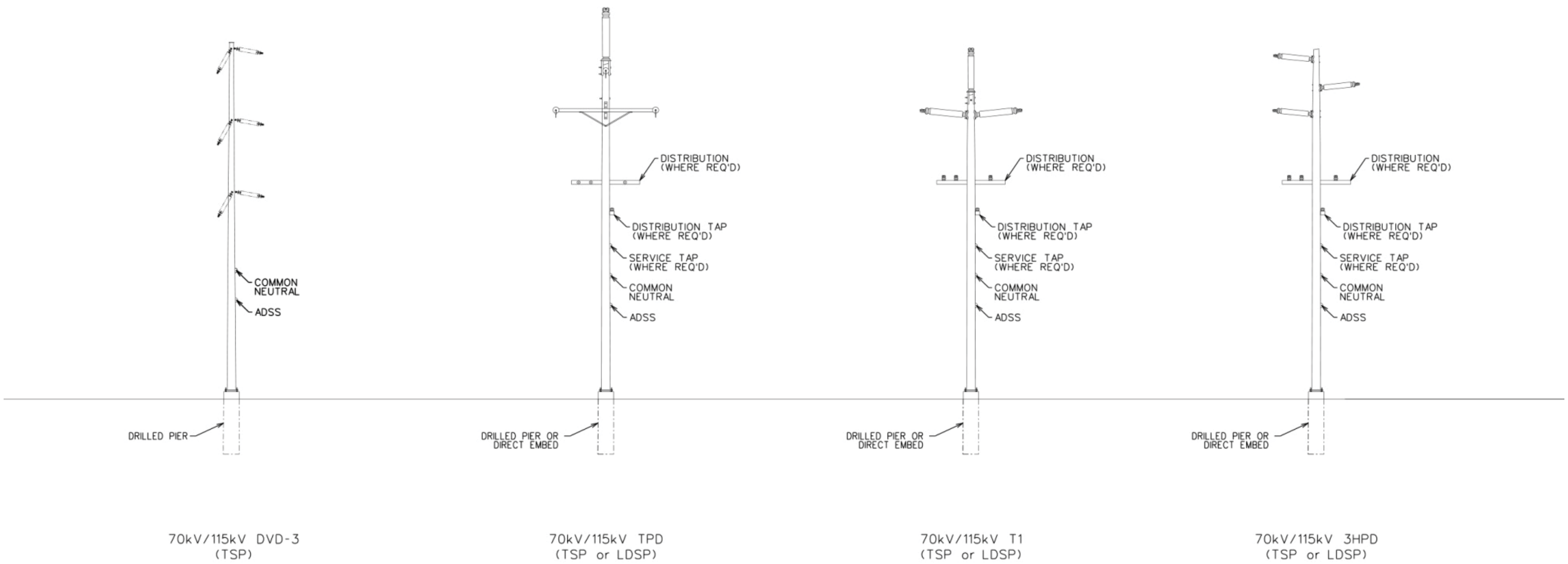


Source: NEET West and PG&E 2017

Figure 2-17.
Typical Structure Diagrams - New 70 Kilovolt Power Line
(sheet 1 of 2)

Estrella Substation and Paso Robles Area
Reinforcement Project

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.

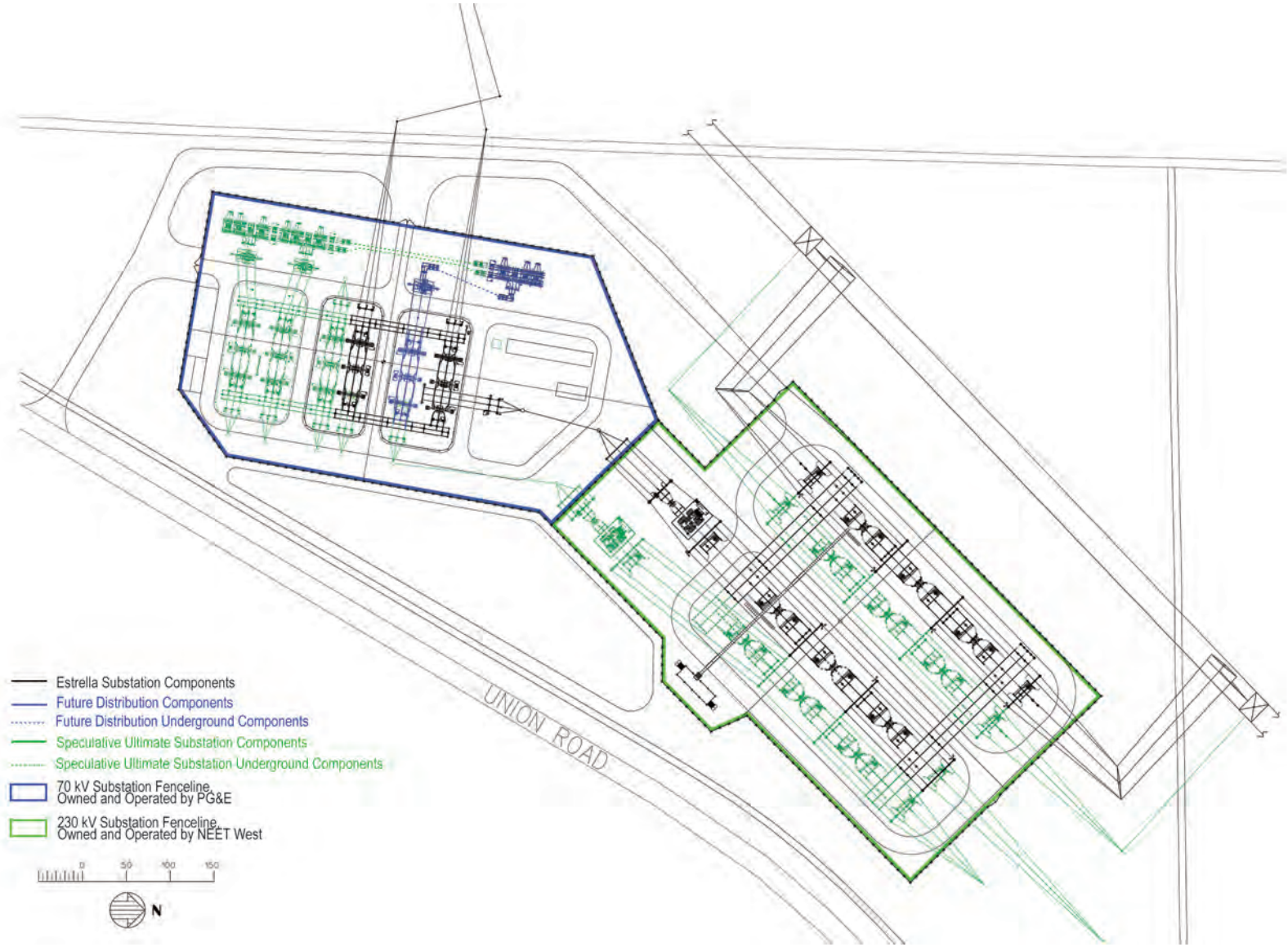


Source: NEET West and PG&E 2017

Figure 2-17.
Typical Structure Diagrams - Reconductoring Segment
(sheet 2 of 2)

Prepared by: Horizon Water and Environment

Estrella Substation and Paso Robles Area Reinforcement Project



Source: NEET West and PG&E 2017

Figure 2-18.
Ultimate Substation Buildout

Prepared by:
Horizon
WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

2.3.5 Other Substation Modifications

Minor modifications within five existing area substations would be required for the Proposed Project. These modifications include installation and reconfiguration of system protection equipment and/or adjusting relays, and reprogramming supervisory control and data acquisition (SCADA) and telemetry equipment. In addition, the fiber optic telecommunications cable extending from Estrella Substation to Paso Robles Substation along the new 70 kV line will require new network and telecommunications equipment at Paso Robles Substation. The modifications would be made within existing substation fence lines at California Flats Switching Station and Morro Bay, San Miguel, and Templeton substations, while minor excavation outside the fence line of Paso Robles Substation may be required for the telecommunication connection. Table 2-6 below provides a summary of the modifications required at each substation.

Table 2-6. Other Substation Modifications Summary

Substation	Improvements
California Flats 230 kilovolt (kV) Switching Station	▪ Remove outdoor wave trap equipment and existing Morro Bay-California Flats 230 kV protection, and install new protection relays and related equipment within the existing control building. ▪ Remove existing relays and install dual-line differential protection relays on the existing Morro Bay-California Flats line to match new Estrella Substation terminal for permissive overreaching transfer tip (POTT) high-speed protection. ▪ Install regenerative catalytic oxidizer (RCO) switches, local/remote, and circuit breaker (CB) control through replaced CB relay. ▪ Provide breaker failure relay protection.
Morro Bay 230 kV Substation	▪ Remove wave trap equipment. ▪ Remove existing relays and install dual-line differential protection relays at CB 482 to match new Estrella Substation terminal for POTT high-speed protection. ▪ Install RCO switches, local/remote, and CB control through replaced CB relay. ▪ Provide breaker failure relay protection.
Templeton 230/70 kV Substation	▪ Install reverse power relay on the existing Templeton 230 / 70 kV #1 transformer banks to prevent the 70 kV system from feeding the 230 kV system.
San Miguel 70 kV Substation	▪ Remove existing directional overcurrent electro-mechanical relays at CB 22 breaker relay panel.

Substation	Improvements
	▪ Install two line protection relays in CB 22 relay panel to match new Estrella Substation terminal for step-distance protection. ▪ Provide breaker failure relay and reclosing relay protection.
Paso Robles 70 kV Substation	▪ Upgrade the new Estrella-Paso Robles 70 kV power line to meet line ampacity demands of 975A emergency. ▪ Upgrade terminal equipment such as insulators, jumpers, and any rigid bus at the breaker to meet 975A ampacity ratings. ▪ Remove existing Schweitzer Engineering Laboratories (SEL) 321 and SEL 267 relays at CB 72 breaker relay panel, along with associated auxiliary switch devices. ▪ Install two line protection relays in CB 72 relay panel to match new Estrella Substation terminal for step-distance protection. ▪ Provide breaker failure relay and reclosing relay protection. ▪ Connect new fiber optic line and common neutral into existing substation, including minor trenching outside the fence line. Connection of the fiber optic line requires a shallow trench, measuring 10 to 15 feet in length and a minimum of 24 inches of cover, to be excavated so the fiber optic line can be connected from the last reconductoring pole to inside of the substation.

Notes: CB = circuit breaker; kV = kilovolt; POTT = permissive overreaching transfer tip; RCO = regenerative catalytic oxidizer; SEL = Schweitzer Engineering Laboratories

2.4 Easement Requirements

The parcel of land where Estrella Substation would be constructed is under private ownership. An affiliate of HWT has an option agreement to purchase the approximately 15-acre portion of this parcel. Prior to construction, HWT would 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, HWT would 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 would be installed within the existing transmission line easement. Two additional LSTs would be used to

complete the interconnection and would be installed on the parcel that would be acquired for the development of Estrella Substation.

New easements would be acquired for the majority of the new approximately 7-mile-long 70 kV power line segment. The easements would be 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 would typically be 70 feet wide, and the poles would be located in the center of the easement (35 feet on each side). In locations where the poles would 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 would 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/or acquisition is provided in the PEA (see Appendix H to the PEA).

The approximately 3-mile-long reconductoring segment would be mostly located within an existing 30- to 40-foot-wide PG&E 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 would determine whether it is a conflict with the operation of the 70 kV power line, and/or 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.

A new 30-foot-wide easement, approximately 0.6 mile in length, would need to be obtained on private property to the north of the 70 kV substation to connect the reasonably foreseeable new distribution facilities to existing distribution feeders on Mill Road. The reasonably foreseeable new 1.1-mile-long segment of distribution line is planned to be installed within the existing road right-of-way.

2.5 Proposed Project Construction

The construction process, methods, equipment and personnel needs, access, temporary work areas, and schedule for the Proposed Project components are described in the following subsections.

2.5.1 Construction Process and Methods

Substation Construction

Grading and Site Preparation

Construction of the Estrella Substation would 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 would be limited to areas within survey-marked boundaries, and would be completed utilizing mechanized equipment. To the extent practical, removed vegetation may be disposed

of at a landfill. Site construction fencing would be installed during the site preparation stage, and would 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 50,000 cubic yards of cut and fill, balanced on site to the maximum extent possible. Generally, grading and excavation would be accomplished in a phased approach. Earthwork activities (e.g., grading, excavation) would be completed to meet project design specifications and match proposed grades, considering the geotechnical conditions at the site. Maximum excavation depths would 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 of support structures, would 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 would be used on site to balance cut and fill calculations, as feasible. All spoils that are not useable and/or reveal contamination, as determined through testing and/or based on visual appearance, would be sent to a properly licensed landfill facility. All recyclables would be taken to a licensed recycle facility, and all refuse would be taken to the Paso Robles Landfill or other suitable landfill facility. Topsoil reuse is not feasible within the fenced substation area; however, topsoil would be conserved at exterior temporary work areas where applicable.

Material that requires processing for construction of Estrella Substation would 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 4-6 inches of surface gravel would be required to be imported and installed within the substation footprint and along the access road. Additionally, gravel would be placed in the substation staging areas.

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 would commence. Foundation construction excavation would be accomplished primarily by backhoes and drill rigs. Forms, reinforcing steel, and concrete would then be installed, as appropriate, to build the foundations for substation equipment and the control enclosures. Structure and equipment foundations would be excavated to an approximate depth of between 10 and 25 feet. Actual depths would depend on the equipment to be installed. Concrete pouring would be required to construct the foundations. Underground bundled polyvinyl chloride (PVC) conduit ducts and below-grade cable trench would be constructed within the substation pad for the power and control circuits.

Above-Ground Construction

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

It is anticipated that all major electrical and substation equipment would be delivered to each substation site and placed directly on foundations and footings once all concrete footings have cured. All new components would be delivered to the site using a flatbed truck and positioned using a small crane or forklift. All equipment including breakers, bus supports, insulators, bus and switches would be installed or anchored into final position, grounded, and if required wired back to the control house. The control house will be delivered and installed on concrete piers. The control house building will then be ready for the installation of protective relay panels, batteries, AC and DC load centers, SCADA and telecommunication hardware and air conditioning systems. Final equipment testing and commissioning would then be performed in the substation and then in conjunction with PG&E's new and existing facilities.

Access Driveway and Interior Road Construction

Access road construction would 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 would be graded and compacted in accordance with engineering standards and geotechnical requirements. Following initial compaction, road base would be imported, distributed on site, and final compacted. Finally, conventional paving equipment would be used to distribute the asphalt road material along the main access route and driveway aprons. Paving of the access road would occur after major construction at the substation site is completed and all heavy equipment is removed from the site.

230 kV Transmission Interconnection Construction

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

- Adjacent to the new 230 kV substation, a temporary connection (commonly referred to as a "shoo-fly") would 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 would be placed in the ground without foundation and guy-wired for stability. The temporary structures would connect the conductors as necessary for the existing 230 kV transmission line to remain in service.

- The first circuit on the existing double-circuit 230 kV transmission line would be cleared, and the phase conductors would be moved off the two existing LSTs onto the temporary poles. The first circuit would then be re-energized.

- The second circuit on the existing double-circuit 230 kV transmission line would be cleared, and the erection and interset of two new LSTs would be completed. The phase conductors for the circuit would be dead-ended and temporary jumpers would be installed.

- The OPGW at each new tower would be secured, an existing LST would be removed, and two LSTs would be installed for the Estrella Substation interconnection.

- The second circuit on the existing 230 kV transmission line would be re-energized and the first circuit cleared. The existing phase conductors would be transferred from the temporary poles to the new towers. The phase conductors on the new towers would be dead-ended and permanent jumpers installed; the phase conductors would be re-attached, and the first circuit would be re-energized.

- The temporary poles and anchors used for the shoo-fly would be removed.

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

Table 2-7. 230 Kilovolt Interconnection Structure Foundation Summary

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

Notes: cy = cubic yards

Each LST is comprised of multiple steel members that are connected together with hardware to form the tower. Installation of the tower would 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 individual tower's location. Once the first section of the tower is complete, it would be placed onto the cured concrete foundation using cranes and secured using the appropriate hardware. This process would be repeated for any additional sections of the tower until it is complete. Insulators and additional hardware would 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 would then be attached to the new tower hardware.

As part of the 230 kV interconnection work, an existing LST would be removed and then replaced by a new LST in a slightly different location. The LST would 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 would be transported for reuse, recycling, or disposal at an approved facility. Once the LST has been removed, the associated concrete pier foundations would be jackhammered to approximately 3 feet below grade. The remaining void would then be backfilled with native soil saved from other excavations in the surrounding area and returned to its original contours, to the extent feasible, or in accordance with prearranged landowner agreements.

Telecommunications and Power Line Interconnection Construction

For the 230 kV substation, the back-up electric power source and telecommunication lines would 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 would 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 would 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), located along the existing distribution line that intersects the utility corridor, or a pad-mounted transformer, located adjacent to the control enclosure, would be installed.

For the 70 kV substation, the OPGW cable would be cut at the existing LST that is to be removed. The OPGW cable would then be rolled back to the first LST located both northeast and southwest from where the cable is to be cut. The cable would 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 would be connected by underground conduit. The OPGW cable would 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 would be installed to complete the telecommunications system extension.

The conduit would be installed using open trenching methods of construction, HDD techniques, or a combination of the two. The actual method of installation would be determined during final design.

Open Trench Method

Excavators and other earth-moving equipment would 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, the presence of existing substructures, and discussions with adjacent property owners/farmers.

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

the trench is backfilled, the area would be compacted using portable compaction devices.

Horizontal Directional Drilling Method

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 would initially be adjusted to the proper design angle for the particular drill.

The first step would be to drill a fluid-filled pilot bore. The first and smallest of the cutting heads would 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 would be added as the drill head bores along the specified route. The drill head would 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 would be pushed and pulled through the borehole until it is the appropriate size for the 4-inch conduit. Using this method, the conduit would 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 would be approximately 50 by 50 feet. A non-toxic, water-based lubricant containing water and bentonite clay, referred to as drilling mud, would be used to aid the drilling, coat the walls of the borehole, and maintain the opening. During the bore, drilling mud would 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 would be used during the HDD process. The drilling mud would be received in an approximately 6-foot by 6-foot pit.

The drilling mud returned back through the bore-drilled hole would 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 would be recycled by the drilling contractors and used on subsequent projects. Any excess clean drilling mud would be disposed of at an appropriate waste facility.

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

In order to facilitate the pulling and splicing of the cables, an underground pull/splice box would be installed at the base of an existing or newly installed structure. All pull/splice boxes used for the project would be pre-cast polymer concrete and traffic-rated boxes, measuring approximately 3 by 5 feet, as shown in Figure 2-19. These splice boxes would provide access during operations to the underground cables for maintenance, inspection, and repair.

An excavator or backhoe would 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 would be delivered to the project site on a flatbed truck and lowered into place using a small truck-mounted crane. The pull/splice box would 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 would be restored with native soil saved from the initial excavation.

After installation of the conduit, the project proponents would install the communication cable in the conduits. Each cable segment would 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 would be placed at one end of the section and a pulling rig would be placed at the other end. A large rope would then be pulled into the conduit using a fish line, and attached to the cable-pulling eyes. The cable-pulling eyes would then be attached to the cable and the cable is then pulled through the conduit. A lubricant would be applied to the cable as it enters the conduit to decrease friction during pulling.

70 kV Power Line Construction

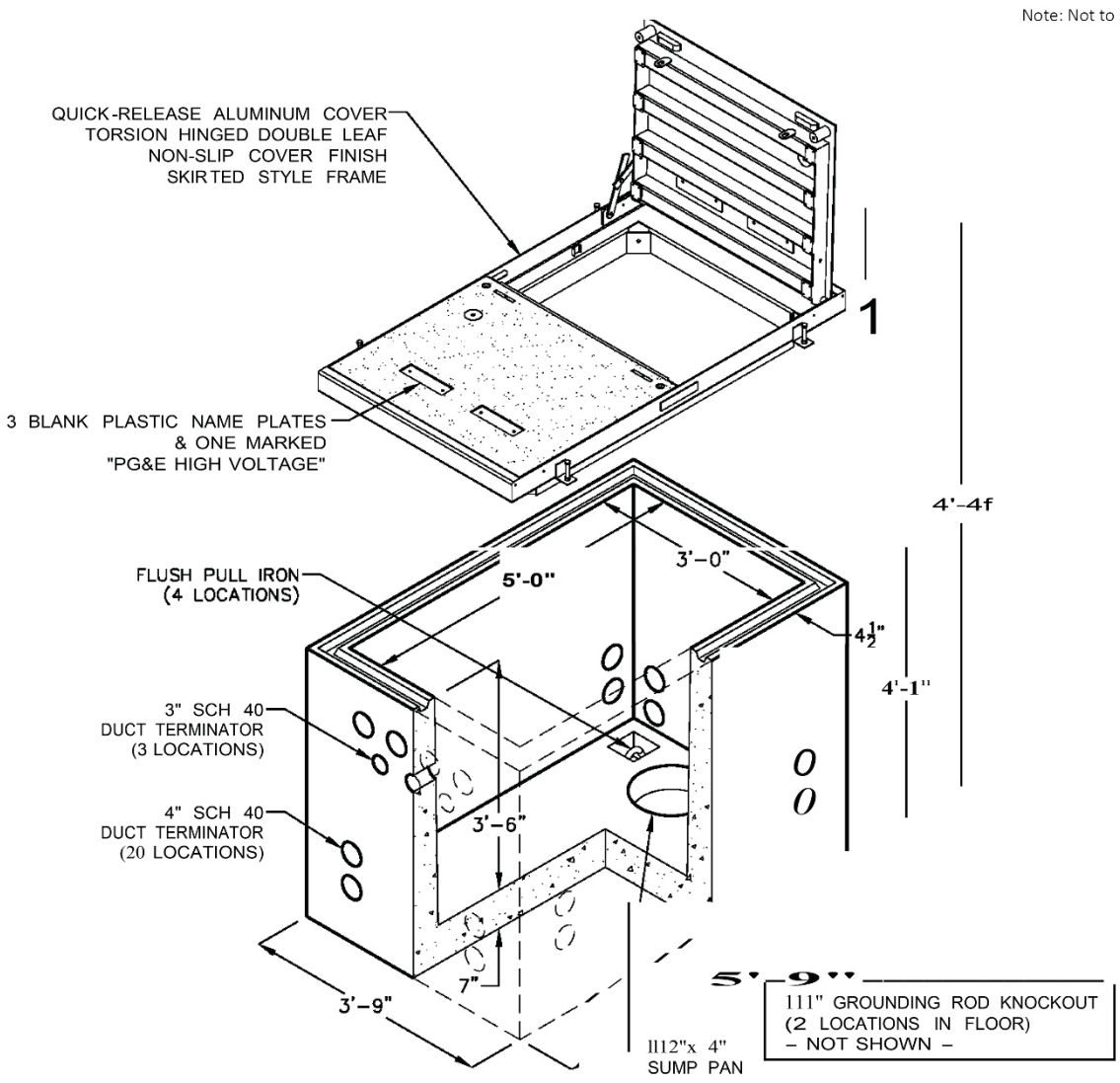
Site Preparation and Grading

Power line installation would 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.

Crossing Structure Installation

Crossing structures would be installed to protect existing roadways and other facilities from sagging conductors during construction. PG&E would 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 would 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 would be installed according to encroachment permit requirements.



Source: NEET West and PG&E 2017

Figure 2-19.
Typical Pull/Splice Box

Estrella Substation and Paso Robles Area
Reinforcement Project

Power Line Structure Installation

The 70 kV TSPs would be installed on concrete pier foundations. Large augers and drill rigs would complete the required excavations and, if necessary, a reinforcing steel rebar cage would then be lowered into the excavation. An approximately 2-foot-tall form would be constructed, and concrete would then be poured to fill the excavation. Each completed foundation would be left to cure for 7 to 14 days. LDSPs would be direct-embedded and would not require a foundation. Table 2-8 shows a summary of the typical power line structure foundation dimensions.

Table 2-8. Power Line Route Structure Foundation Summary

Foundation Type	Quantity	Approximate Diameter (feet)	Approximate Depth (feet)	Approximate Excavation Volume (cy)	Approximate Concrete Volume (cy)
70 kilovolt (kV) Light Duty Steel Pole	110	3.0	12.0–20.0	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

Notes: cy = cubic yards; kV = kilovolt

Source: NEET West and PG&E 2017

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, would be delivered to structure sites in two or more sections using a flatbed truck and assembled on site. The crossarms would be attached, the pole would be placed onto the cured concrete and anchor bolt foundation using cranes, and the pole would be secured using the appropriate hardware. If the pole is delivered in multiple segments due to access restrictions or other engineering considerations, the segments would 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 would be added to the crossarms using a bucket truck. If applicable, the existing conductor would then be attached to the new TSP hardware. Excess soils would be removed to the 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, would be delivered to structure sites in flatbed trucks. As noted above, the LDSPs would be embedded directly into the ground and would 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 would be assembled. The poles would

then be placed into the excavated hole using line trucks or cranes, the remaining void would be backfilled, and the backfill area would 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 would then be attached to the new LDSP hardware.

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 would remove existing distribution 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 would be removed. In the reconductoring segment, approximately 50 power line poles would be replaced and about 12 existing distribution poles would be removed or replaced. Old wood poles would simply be lifted out of the ground using mechanical equipment. Removal of steel poles would 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 would then be cut off and the remaining base would be buried in place.

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

Electric Distribution Line Outages

During construction, sections of distribution lines that would cross the project or would 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 would coordinate taking the distribution lines out of service (i.e., taking a clearance). The Distribution System Operations group would 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 would return to other work once the switching is completed. These distribution-switching activities take place throughout PG&E's service territory and are an integral part of PG&E's ongoing operational activities.

Conductor Installation

The new pole line conductor installation process would 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 would then be pulled through the rollers from structure to structure. In instances where terrain is difficult, or the use of a bucket truck or aerial man lift is not feasible, this may be accomplished using a helicopter. Once the rope is in place, it would be attached to a steel cable and pulled back through the sheaves. The conductor would then be attached to the steel cable and also pulled back through the sheaves and into place. Pulling would be completed 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 would be done under a controlled tension to keep the conductor elevated and away from obstacles.

The reconductoring installation process would be completed in a similar manner to the new pole line conductor; beginning by temporarily attaching sheaves and rollers to the lower end of the insulators, and putting the old conductor into the roller. The new conductor would then be attached to the old conductor and pulled through the sheaves and into place using similar conventional tractor-trailer pulling equipment and methods, as described above.

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

Reasonably Foreseeable Distribution Components

Construction of the reasonably foreseeable new distribution line segments would follow a similar process to the 70 kV power line construction, but on a smaller scale. No site preparation or grading would be required for the distribution line construction and reconductoring. Distribution poles would be direct-embedded and, once installed, conductors would be strung using reel trailers pulled behind trucks that park in flat areas. No outages would be required for construction of the new distribution line segments except to tie into the existing circuits. During reconductoring, any outages of the existing distribution lines should be minimal and limited to the close proximity to where the work is being done.

The work within the 70 kV substation to establish the reasonably foreseeable distribution feeders would follow a similar process to that described above for the Proposed Project (see “Below-Ground Construction” and “Above-Ground Construction”). This work would require some ground disturbance associated with construction of equipment foundations, but this would take place within the fence line of the already-constructed Estrella Substation. 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 would 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.

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.

Ultimate Substation Buildout

Ultimate buildout of the Estrella Substation would follow a similar process to that described for the Proposed Project. Specifically, new equipment (e.g., transformer, breakers, switches, etc.) within the 230 and 70 kV substations would be installed, tested, and commissioned in a similar manner to that described under "Below-Ground Construction" and "Above-Ground Construction" for the Proposed Project. Some ground disturbance would be required for constructing the equipment foundations and substation wiring, but this would occur within the fence line of the already-constructed Estrella Substation. Construction of the additional 230 kV interconnection is assumed to follow a similar process to that described above for the Proposed Project, under the heading "230 kV Transmission Interconnection Construction".

2.5.2 Construction Temporary Work Areas and Access

Construction of the Proposed Project would require establishment of temporary work areas, such as staging areas, structure work areas, conductor pull and tension sites, and helicopter landing areas. Construction of temporary access roads also would be required. While locations for temporary work areas and access roads may need to be adjusted as part of final engineering and at the time of construction due to land use changes, avoidance of unanticipated environmental impacts, and other factors, approximate locations of temporary works areas are shown in Figure 2-6 and Figure 2-7. Table 2-9 provides a summary of the approximated temporary work area/disturbance area requirements for construction of the Proposed Project.

Table 2-9. Proposed Project Temporary Disturbance Areas

Temporary Work Area	Anticipated Site Preparation	Total Approximate Area (Acres)[1]
Estrella Substation		
Substation Work and Staging Areas	Vegetation removal and grading, including grape vines (and roots) and grasses.	6.2
70 kV Power Line Alignment		
Staging Areas[2]	Vegetation removal may be required, temporary fencing and gates would be installed, gravel would be installed, and temporary power would be supplied by a distribution tap or generator.	35.3
Pole Work Areas[3]	Vegetation removal and minor grading may be required.	44.4
Crossing Structure Work Areas	Vegetation removal may be required.	1.1
Pull and Tension Sites	Vegetation removal may be required.	10.9

Temporary Work Area	Anticipated Site Preparation	Total Approximate Area (Acres)[1]
Landing Zones	Sites would be leveled free of obstacles and debris.	1.4
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
Reasonably Foreseeable Distribution Components[4, 5]		
Distribution Pole Work Areas	Vegetation removal may be required.	1.8
21/12 kV Pad-Mounted Transformer Work Areas	Vegetation removal and minor grading may be required.	1.5

Notes: kV = kilovolt; LDSP = light-duty steel pole; LST = lattice steel tower; TSP = tubular steel pole

1. Acreage totals do not account for overlapping work areas.
2. The Golden Hill Industrial Park Staging Area may be replaced with an approximately 10-acre staging area located on Paso Robles Municipal Airport property.
3. Includes work areas for new and replacement LSTs, TSPs, LDSPs, work areas required for removal of existing poles, and existing and new distribution poles.
4. If construction of the reasonably foreseeable distribution components occurs at the same time as the substation and 70 kV project components (not currently predicted), the staging area in the Golden Hill Industrial Park may be used. Otherwise, staging for construction of the distribution components may occur at the PG&E yard at Templeton Service Center.
5. Work within the Estrella Substation (installation of 70/21 kV transformer and associated equipment) for the reasonably foreseeable distribution components would not result in any new temporary disturbance outside of the substation fence line.
6. Specific temporary impact acreages associated with the additional 230 kV interconnection that could be installed as part of ultimate substation buildout are currently unknown. However, it is assumed that the additional 230 kV interconnection would be composed of LSTs, similar to the Proposed Project, which require a work area of 200 by 200 feet for each LST.

Source: NEET West and PG&E 2017

Staging Areas

Proposed Project construction would require four main staging areas: two staging areas supporting construction of the 70 kV power line alignment (one of which may also support construction of the distribution components), and two staging areas supporting construction of Estrella Substation. Depending on the timing of construction of the distribution components of the Proposed Project, an existing PG&E yard at Templeton Service Center may also be used. The largest staging area would be the Golden Hill Road Staging Area, which would be approximately 34.8 acres. The other staging area supporting the 70 kV power line construction would be located at Navajo Avenue, and would be approximately 0.5 acre. The two staging areas

supporting construction of the substation, totaling 1.9 acres, would be located entirely within the 15-acre permanent disturbance area.

Staging areas would be used for receiving and staging of materials and equipment, laydown areas, and employee parking. Staging areas would also serve as the assembly point for project personnel, as well as in some cases, the location for temporary, portable bathroom facilities; equipment storage during off-work hours and weekends; materials storage; office trailer staging; and a meeting area, as needed, for project management. For work activities at the substation site and the main staging sites, a temporary overhead service drop (tap) or an underground service (run) would 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 supporting the 70 kV power line alignment would take approximately 4 weeks to complete and would 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.

Structure Work Areas

Structure work areas would be established at each new or replacement tower or pole that would be installed as part of the Proposed Project. These work areas would be used to facilitate the tower/pole assembly, erection, and hardware assembly processes. They would also be used to support the conductor installation and/or removal processes. The final tower/pole locations would be determined when engineering is complete and, where feasible, would 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 would typically be centered on the tower/pole location and would vary in size depending on the type of tower/pole being installed. Typical work areas are about 100 feet 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 and new distribution poles would typically be about 50 by 50 feet.

Temporary work areas would similarly be required for installation of crossing structures. These work areas would typically measure approximately 40 by 40 feet. Preparation of the site would typically be limited to mowing vegetation, as needed, to minimize the risk of fire. Approximate crossing structure locations for the 70 kV power line are depicted on Figure 2-7.

Pull and Tension Sites

Pull and tension sites, also known as stringing sites, would be used to install conductor on support structures. Pull and tension sites would only be needed for the 70 kV power line (not the distribution line). Conductor installation activities at stringing sites would include pull and tension equipment staging, temporary pole anchor installation, and pulling and tensioning of the conductor. In addition, select pull sites may provide the necessary work area needed for telecom-related activities. Proposed pull site locations are depicted on Figure 2-7.

Pull sites would typically be located within the power line easement and can be spaced between 0.5 and 1 mile apart. In locations where pulling would 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 would typically be 70 feet wide and would range between approximately 120 and 150 feet long. Each stringing site would 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 would 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.

Helicopter Landing Zones

Helicopter landing zones may be used during construction for the staging, storage, refueling, and operation of helicopters during construction. While the number and exact locations of helicopter landing zones may change depending on site conditions at the time of construction, six sites have been identified for use during the Proposed 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).

Approximate locations of these potential landing zones are depicted on Figure 2-7. The two non-airport landing zones would 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 Proposed Project area, these landing zones would not require extensive preparation.

Construction Access

Construction crews, materials, and equipment would primarily access the Proposed Project site by using U.S. Route 101 and SR-46, and by traveling along Union Road, Golden Hill Road, or North River Road. In addition to using a system of existing paved and unpaved roads, the Applicants may also grade or mow segments of 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 and pole replacement segments. The new and reconductored distribution line segments would be accessed via an existing dirt road north of the proposed substation site and along other existing paved and unpaved roads (no new access would be needed for construction of the distribution components).

Access to the work sites for workers and equipment would occur using rubber tire mounted vehicles. Some 70 kV 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. Work along the new 70 kV power line segment would occur from the road shoulder, where feasible.

Permanent and construction access to the proposed substations would be immediately off Union Road on a new private access road. The main access road would be paved and measure about 1,100 feet long and about 20 feet wide. Construction access for the proposed 230 kV interconnection would 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 would occur using PG&E's existing utility easement, immediately adjacent to the Estrella Substation property boundary.

Helicopter Access and Use

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 70 kV poles and/or conductor installation and removal. Helicopters would primarily be used for such activities in areas along the power line alignment where limited access or local terrain conditions prohibit the work from being conducted by ground-based crews and equipment. Based on preliminary

assessment of the proposed alignment, and for quantitative discussion purposes in the EIR, it is projected that helicopter activities may occur approximately 132 days during the 18-month construction period for the substation and 70 kV power line. It is anticipated that only one helicopter would be used at any one time.

Typical helicopter payloads would include, but not be limited to, poles, sock lines, power line hardware, crewmembers, and equipment. Refueling activities would occur only at the Paso Robles Municipal Airport. Flight paths for helicopters would be from the Paso Robles Municipal Airport and would generally extend directly to and along the power line easement. Helicopter operation would be planned to avoid sensitive receptors. Hours of operations for helicopters would generally be the same as those for construction, 7:00 a.m. to 5:30 p.m., Monday through Friday, and would include Saturdays when needed. In some cases, residents may need to relocate from their home temporarily during helicopter activities; this is discussed further in Section 4.14, "Population and Housing."

2.5.3 Construction Workforce, Equipment, and Schedule

Different phases of the construction process would require varying numbers of construction personnel. On a typical workday, about 12 to 15 construction crewmembers would be working at Estrella Substation. Similarly, about 10 to 15 construction crewmembers would be working on the installation and/or removal of power line structures and on reconductoring activities. During pulling activities, a larger work team would be required to complete the various work stages. Typically, this activity would require about 30 workers, for short periods of time. During construction of the power line segment, up to four crews of approximately six workers each would be working at any one time. Project equipment, personnel requirements, and task duration by construction activity are presented in Table 2-10.

Construction would typically occur 6 days per week (Monday through Saturday) throughout the duration of construction. Daily work hours would 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 (e.g., when electrical clearances are available or for safe completion of a construction procedure).

2.5.4 Construction Power, Water Use, and Domestic Supply Services

Electric power required for construction of the Estrella Substation would be supplied by tapping into the existing power lines adjacent to the substation site. Small generators may also be used to supply temporary power during construction at the substation site.

The proposed 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 substation site, a municipal water source, delivery by water trucks, or Lake Nacimiento, which is located northwest of Paso Robles. Another potential water source for construction would be recycled water from the City's newly upgraded wastewater treatment plant.

Table 2-10. Preliminary Construction Workforce and Equipment Use, and Approximate Task Durations

Proposed Project Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day	Estimated Work Dates
Estrella Substation					
230 kV Substation					
Access Roads	Workers	10	Skip Loader	2	Month 1
	1-Ton Crew Cab Flat Bed, 4 x 4	1	Water Truck	1	
	Dump Truck	2	–	–	
Site Work Area Preparation Mobilization	Workers	10	Roller	2	Month 1-2
	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	Month 2
	½-Ton Pickup Truck, 4 x 4	1	Bobcat	1	
	1-Ton Crew Cab Flatbed, 4 x 4	1	Water Truck	1	
Foundation Construction	Workers	2–12	Water Truck	1	Month 2-3
	Hole Digger	1	Pickup Truck	1	
	Backhoe/Dozer/Excavator	1	Crane or Boom Truck	1	
Ground Grid Conduit Installation	Workers	5	Water Truck	1	Month 3-4
	Trencher	1	–	–	
Steel Bus Erection	Workers	5	Aerial Manlift	1	Month 4
	Boom Truck	1	Water Truck	1	

Proposed Project Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day	Estimated Work Dates
Install Yard Rock	Workers	8	Dump Truck	1	Month 4-5
	Bobcat	1	Water Truck	1	
Transformer and Equipment Delivery and Installation	Workers	5–8	Crane or Boom Truck	1	Month 4-5
	2-Ton Truck	1	Tractor/Trailer	1	
	Pickup Truck	1	Portable Gas/Diesel Generator	1	
	Bucket Truck	2	–	–	
Control Enclosure Delivery and Install	Workers	6	Crane	1	Month 5
Remaining Equipment Delivery and Install	Workers	2–5	Boom Truck	1	Month 5-6
Cable Installation and Termination	Workers	5	Aerial Manlift	1	Month 5-6
Testing and Commissioning	Workers	2–5	Pickup Truck with Trailer	2	Month 6-7
Cleanup and Restoration	Workers	3	Front-End Loader	1	Month 7
	Blader	1	Water Truck	1	
70 kV Substation					
Site Work Area Preparation Mobilization	Workers	6	Grader	1	Month 1-2
	Backhoe/Dozer/Excavator	1	1-Ton Pickup Truck, 4 x 4	2	
Foundation Construction	Workers	6	Trencher	1	Month 2-3
	Hole Digger	1	1-Ton Pickup Truck, 4 x 4	1.75	
	Backhoe/Dozer/Excavator	1	–	–	
Ground Grid/Conduit Installation	Workers	4	1-Ton Pickup Truck, 4 x 4	1	Month 2-3
	Backhoe/Dozer/Excavator	1	Trencher	1	

Proposed Project Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day	Estimated Work Dates
Steel Bus Erection	Workers	8	Aerial Manlift	2	Month 3-4
	Boom Truck	2	1-Ton Pickup Truck, 4 x 4	2	
Equipment Delivery and Installation	Workers	6	Aerial Manlift	2	Month 4
	Boom Truck	1	1-Ton Pickup Truck, 4 x 4	2	
Control Enclosure Delivery and Install	Workers	5	1-Ton Pickup Truck, 4 x 4	2	Month 4
Cable Installation and Termination	Workers	5	1-Ton Pickup Truck, 4 x 4	2	Month 4-5
Install Yard Rock	Workers	6	Dump Truck	1	Month 5
	Bobcat	1	Backhoe/Dozer/Excavator	1	
Cleanup and Restoration	Workers	4	1-Ton Pickup Truck, 4 x 4	1	Month 5
Testing and Commissioning	Workers	4	1-Ton Pickup Truck, 4 x 4	1	Month 6
230 kV Transmission Interconnection					
Site Work Area Preparation Mobilization	Workers	8	Grader	1	Month 1-2
	½-Ton Pickup Truck, 4 x 4	1	1-Ton Crew Cab Flat Bed, 4 x 4	1	
	Backhoe/Dozer/Excavator	1	Water Truck	1	
Foundation Tower Installation/Removal of One Tower	Workers	10	Pickup Truck	2	Month 2-3
	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	

Proposed Project Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day	Estimated Work Dates
Conductor	Workers	15	Line Truck	2	Month 4
	Bucket Truck	2	Pickup Truck/Crew Truck	4	
	Crane	3	–	–	
Cleanup and Restoration	Workers	5	Pickup Truck	1	Month 5
	Grader	1	Water Truck	1	
	Backhoe	1	–	–	
70 kV Power Line					
Reconductoring Segment					
Site Work Area Preparation Mobilization	Workers	6	Grader	1	Month 1
	1-Ton Crew Cab Flat Bed, 4 x 4	1	Water Truck	1	
	Pickup Truck	1	Backhoe	1	
Pole Installation/Transfer/ Distribution/Removal	Workers	20	Water Truck	1	Month 2-7
	Crane/Basket	3	Helicopter	1	
	Heavy Crane	1	Bucket Truck	2	
	Drill	1	Line Truck	2	
	1-Ton Crew Cab Flat Bed, 4 x 4	3	2-Ton Truck	3	
	Pickup Truck	3	–	–	

Proposed Project Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day	Estimated Work Dates
Conductor Installation	Workers	15	Wire Puller	1	Month 3-7
	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	Month 8
	Pickup Truck	1	Water Truck	1	
	Grader	1			
New 70 kV Power Line Segment					
Site Work Area Preparation Mobilization	Workers	6	Grader	2	Month 8
	1-Ton Crew Cab Flat Bed, 4 x 4	1	Backhoe	1	
	Pickup Truck	1	Water Truck	2	
Pole Tower Installation	Workers	21	2-Ton Truck	3	Month 9-16
	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	–	–	

Proposed Project Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day	Estimated Work Dates
Conductor Installation	Workers	18	Wire Truck/Trailer	1	Month 17-18
	Line Truck	3	Crane with Basket	3	
	Pickup Truck	3	Bucket Truck	2	
	2-Ton Truck	3	Light Duty Helicopter	1	
	Wire Puller	1	Fork Lift	1	
	Tensioner	1	Water Truck	1	
Cleanup and Restoration	Workers	6	Backhoe	1	Month 18
	Pickup Truck	1	Water Truck	1	
	Grader	1	–	–	
Reasonably Foreseeable Distribution Facilities[1, 2]					**Total of 19 Weeks**
Mobilization	Workers	6	2-Ton Truck	1	2 weeks
	1-Ton Crew Cab Flat Bed, 4 x 4	3	Backhoe	1	
	Water Truck	1	–	–	
Foundation Construction	Workers	2–12	2-Ton Truck	1–3	6 weeks
	1-Ton Crew Cab Flat Bed, 4 x 4	1–3	Backhoe	1	
Ground Grid/Conduit Installation	Workers	5–10	2-Ton Truck	1	4 weeks
	1-Ton Crew Cab Flat Bed, 4 x 4	1-2	Crane	1	
Steel/Bus Erection	Workers	5	Pickup Truck	1	4 weeks
	Concrete Truck	2	2-Ton Truck	1	
Distribution Bank and Breaker Installation	Workers	5	Semi-trailer Truck	1	3 weeks
	1-Ton Crew Cab Flat Bed, 4 x 4	2	Crane	1	

Proposed Project Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day	Estimated Work Dates
Distribution Feeder, Conduit, Boxes, Underground Cable, Riser Poles, Line Work	Workers	8	Line Truck	2	6 weeks
	1-Ton Crew Cab Flat Bed, 4 x 4	1	Backhoe	1	
	2-Ton Truck	1	Crew Truck	2	
Cable Installation and Termination and Indoor Control Building Work	Workers	3–5	I-Ton Pickup Truck, 4 x 4	1	4 weeks
	1-Ton Crew Cab Flat Bed, 4 x 4	2	2-Ton Truck	1	
	Backhoe	1	–	–	
Testing	Workers	3	I-Ton Pickup Truck, 4 x 4	3–4	4 weeks
Cleanup and Restoration	Workers	3	1-Ton Crew Cab Flat Bed, 4 x 4	1	2 weeks
	1-Ton Pickup Truck, 4 x 4	3	Water Truck	1	
	Backhoe (or similar)	1	–	–	

Notes: kV = kilovolt

1. Assumes build-out of the reasonably foreseeable 70/21 kV facilities within the 70 kV substation and construction/reconductoring of the new Estrella distribution feeders.
2. Specific construction schedule information and personnel and equipment requirements associated with ultimate substation buildout are not known at this time.

Source: NEET West and PG&E 2017

Construction of the substation and power line would require approximately 10.3 million gallons of water total during the construction period (about 32 acre-feet), with 8.3 million gallons required for the substation and 2 million gallons required for the power line. About 25 percent of the total water used would be for construction activities (e.g., concrete mixing), with the remaining 75 percent used for dust control during the construction period. Daily water use during the construction period would vary based on the construction phase, but it is estimated that the average water use per day would be about 68,600 gallons. Portable restroom facilities would be provided at the site for worker use during the construction period.

2.5.5 Cleanup and Restoration

Surplus material, equipment, and construction debris would be removed at the completion of construction activities. All man-made construction debris would be removed and recycled or disposed of at permitted landfill sites. Cleared trees would 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 would be restored to the extent practicable, following construction. These disturbed areas include staging areas and access roads, work areas around each tower/pole, and the areas used for conductor stringing and staging. Post-construction restoration activities would include returning areas to their original contours and drainage patterns in accordance with stormwater pollution prevention plan best management practices and as prearranged through landowner agreements, where applicable.

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

2.6 Proposed Project Operations and Maintenance

The Applicants would operate all new and existing components of the Proposed Project according to their respective standard operating protocols and procedures. The Applicants anticipate using similar substation monitoring, control, and data acquisition architecture (e.g., 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 would be dual scanned from PG&E and HWT data centers, and redundant Inter-Control Center Communications Protocol servers would exchange SCADA data with CAISO with real-time situational awareness. The SCADA support personnel would perform daily checks of the applications and hardware to ensure they are in proper working order. The SCADA system would also be maintained to ensure compliance with NERC Critical Infrastructure Protection Standard requirements.

The proposed 230 kV substation would be remotely operated from a control center operated by a HWT affiliate, while the proposed 70 kV substation would be remotely operated by PG&E from its Grid Control Center. HWT and PG&E operations and maintenance personnel would generally perform monthly inspections of their respective substation facilities. More invasive checks, calibrations, and maintenance on the substation components would be performed periodically.

HWT has a CPUC-approved 2020 Wildfire Mitigation Plan (WMP) that provides a strategic framework for systematic reduction of HWT's potential wildfire risk and enhanced transmission system reliability. The 230 kV Estrella Substation would be incorporated into a future annual HWT submission of its WMP.

The proposed 70 kV power line components would operate unattended. An approximately 10-foot radius (approximately 314 square feet) may be maintained around new 70 kV power poles depending 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 would be trimmed or removed for safety. Herbicides may be used for some vegetation maintenance activities.

Inspections of the 70 kV power line segments would 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 would 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 would typically be completed in a pickup truck and/or an off-road utility vehicle. While not expected, if walking is required, the inspector would complete portions of the inspection on foot. Climbing inspections would be performed on an as-needed basis, based on specific identified conditions and in compliance with CAISO guidelines and regulations.

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

2.7 Anticipated Permits and Approvals

The Proposed Project may be subject to a number of other regulatory permits and approvals, depending in part on the environmental analysis contained in this EIR, further surveys of environmental resources on or near the Proposed Project site, and the discretion of the regulatory agencies. Anticipated required permits and regulatory approvals for the Proposed Project are listed in Table 2-11 below.

Table 2-11. Anticipated Permits and Approvals and Applicable Regulatory Requirements

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

Source: NEET West and PG&E 2017

2.8 Applicant Proposed Measures

The Applicants propose to implement measures to avoid and/or reduce potential impacts of the Proposed Project. Applicant-proposed measures (APMs) that would be implemented for the Proposed Project are listed in Table 2-12.

Table 2-12. Applicant-Proposed Measures

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
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;	✓	✓	✓

[10] If the distribution components are constructed at the same time as the rest of the Proposed Project.

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	▪ 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, and will 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.).			
Aesthetics				
AES-1	**Substation Hardscaping.** Decorative rock and/or other hardscape landscaping will be installed between Estrella Substation and Union Road.	✓	N/A	N/A
AES-2	**Light and Glare Reduction.** Construction lighting and permanent substation exterior lighting will be selectively placed and shielded to minimize nighttime glare.	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
Agriculture and Forest Resources				
AG-1	**<u>Coordinate with Landowners, Farmers, and Ranchers Regarding Construction Activities.</u>** 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 the California Public Utilities Commission (CPUC).	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
Air Quality				
AIR-1	**Minimize Reactive Organic Gases (ROG), Oxides of Nitrogen (NOx), and Particulate Matter (PM) Combustion.** ▪ Maintain all construction equipment in proper tune according to manufacturer's specifications; ▪ Fuel all off-road and portable diesel-powered equipment with California Air Resources Board (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 No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
AIR-2	**Air Quality Best Available Control Technology for Construction Equipment.** Best available control technology measures for the project include: ▪ Reducing emissions by expanding use of Tier 3 off-road- and 2010 on-road-compliant engines; and ▪ Installing California Verified Diesel Emission Control Strategies.	✓	✓	✓
AIR-3	**Minimize Fugitive Dust.** ▪ Reduce the amount of the disturbed area where possible. ▪ Use 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 San Luis Obispo Air Pollution Control District. ▪ 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. ▪ 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.	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
Biological Resources				
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 (U.S. Fish and Wildlife Service [USFWS] and/or California Department of Fish and Wildlife [CDFW]), as required.	✓	✓	✓
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.	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	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 applicant-proposed measure (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.			
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.	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	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.			
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 No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
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 site 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 Resources				
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.	✓	✓	✓
CUL-2	**Avoidance.** The project is designed to avoid impacts to potentially CRHR-eligible resources identified within the study area. Potentially eligible (i.e., not evaluated) resources in the study area 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, or 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	N/A	✓	N/A

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	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.			
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.	✓	✓	✓
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 the CPUC will also be notified of the find immediately. If the human remains are determined to be prehistoric, the County Coroner will notify the Native American Heritage Commission (NAHC), which would determine and notify a	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	most likely descendent. The most likely descendent will complete 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.			
CUL-5	**Tribal Construction Monitoring.** If it becomes necessary to work within 50 feet of Dry Creek, Huer Huero Creek, and the Salinas River, or known prehistoric archaeological sites, a tribal monitor will be selected by the 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	✓	N/A
CUL-6	**Archaeological Construction Monitoring.** If it becomes necessary to work within 50 feet of Dry Creek, Huer Huero 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	✓	N/A
Geology and Soils (including Paleontological Resources)				
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:	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	▪ 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.			
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.	✓	✓	✓
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 the 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 the CPUC as to whether or not it is a unique paleontological resource. The CPUC will have 24 hours to respond to	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	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. The 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 CPUC concurrence will not 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 No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
PALEO-3	**Paleontological Construction Monitoring.** 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.	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	▪ 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			

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	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 become 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.			
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), the CPUC, and property owners as appropriate. The principal investigator may designate a paleontologist to implement the recovery, prepare specimens for	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	identification and preservation, and complete 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 a fossil is not accepted by a museum for curation, then project proponents will have fulfilled their obligation for fossil recovery.			
Greenhouse Gas Emissions				
GHG-1	**Minimize Operational Sulfur Hexafluoride (SF_6) Emissions.** During operation and maintenance of Estrella Substation, the project proponents will do the following: ▪ Incorporate Estrella Substation into each of the project proponents' system-wide SF_6 emission reduction programs. CARB requires that company-wide SF6 emission rate not exceed 1 percent 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 SF6 handling and accidental releases. As active members of the 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 percent per year or less for SF_6.	✓	N/A	N/A

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	▪ Maintain substation breakers in accordance with the project proponents' maintenance standards. ▪ Comply with CARB's Early Action Items as these policies become effective.			
Hazards and Hazardous Materials				
HAZ-1	**Hazardous Substance Control and Emergency Response.** 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. The procedures 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	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	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**				
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 the following: ▪ 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.	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	▪ 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 U.S. Army Corps of Engineers [USACE], CDFW, and/or Regional Water Quality Control Board [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				
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.	✓	✓	✓
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.	✓	✓	✓

APM No.	Title/Description	Applicability		
		Estrella Substation	Power Line	Distribution Components[10]
	▪ "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.			
Transportation and Traffic				
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.	N/A	✓	✓

Notes:

APM = applicant-proposed measure; CARB = California Air Resources Control Board; CDFW = California Department of Fish and Wildlife; CRHR = California Register of Historical Resources; CNG = compressed natural gas; CPUC = California Public Utilities Commission; LNG = liquefied natural gas; N/A = not applicable; NAHC =Native American Heritage Commission; NOx = oxides of nitrogen; PM = particulate matter; PRC = Public Resource Code; ROG = reactive organic gases; RWQCB = Regional Water Quality Control Board; SF_6 = sulfur hexafluoride; USACE = U.S. Army Corps of Engineers; USFWS = U.S. Fish and Wildlife Service; WEAP = worker environmental awareness program

2.9 Electric and Magnetic Fields

2.9.1 Overview

The CPUC does not consider electric and magnetic fields (EMF) to be an environmental issue in the context of CEQA 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.

The weather and the earth's geomagnetic field cause naturally occurring EMF, while various technological applications, such as communications technologies, personal electronic devices, electric generation and transmission, and radiological imaging cause man-made EMF. EMFs are typically characterized by their wavelength or frequency as either "non-ionizing" or "ionizing" [11] radiation, as shown in Table 2-13 below. In general, the higher the frequency of EMFs, the shorter their wavelength, and the shorter the wavelength, the greater the amount of energy is imparted when interacting with physical objects. From this table it can be seen that the EMF from the Proposed Project's power line would be "non-ionizing."

Hertz (Hz) is a unit of frequency that is defined as one cycle per second. With respect to EMF, Hz values reflect the rate at which electric and magnetic fields change their direction each second. In the U.S., electric transmission lines typically operate at 60 Hz, which is considered an extremely low frequency (ELF). By comparison, mobile phones operate at between 1.9 and 2.2 billion Hz (gigahertz), while X-rays operate at upwards of 30 X 10^{19} Hz (National Cancer Institute 2020).

Table 2-13. Types of EMF Radiation

Radiation Type	Definition	Forms of Radiation	Source Examples
Non-Ionizing	Low to mid-frequency radiation which is generally perceived as harmless due to its lack of potency.	Extremely Low Frequency Radiofrequency Microwaves Visual Light	Microwave ovens Computers House energy smart meters Wireless (WiFi) networks Cell phones Bluetooth devices Power lines

[11] Ionization is the process by which electrons are freed from atoms or electrons, thereby creating ions or charged particles. Ionizing radiation is radiation that carries enough energy to create ions.

Radiation Type	Definition	Forms of Radiation	Source Examples
			Magnetic resonance imaging devices
Ionizing	Mid to high-frequency radiation which can, under certain circumstances, lead to cellular and/or DNA damage with prolonged exposure.	Ultraviolet X-rays Gamma	Ultraviolet light X-rays ranging from 30 X 10^{16} Hertz (Hz) to 30 X 10^{19} Hz Some gamma rays

Notes: Hz = Hertz; WiFi = wireless

Source: National Institute of Environmental Health Sciences 2020

Electric Fields

Electric fields from power lines are created whenever the lines are energized, with the strength of the field dependent directly on the voltage of the line creating it. Electric field strength is typically described in terms of kV per meter (kV/m). Electric field strength attenuates (reduces) rapidly as the distance from the source increases. Electric fields are reduced in many locations because they are effectively shielded by most objects or materials such as trees or houses.

Unlike magnetic fields, which penetrate almost everything and are unaffected by buildings, trees, and other obstacles, electric fields are distorted by any object that is within the electric field including the human body. Even trying to measure an electric field with electronic instruments is difficult because the devices themselves will alter the levels recorded.

Magnetic Fields

Magnetic fields from power lines are created whenever current flows through power lines at any voltage. The strength of the field is directly dependent on the current in the line. Magnetic field strength is typically measured in milligauss (mG). Similar to electric fields, magnetic field strength attenuates rapidly with distance from the source. However, unlike electric fields, magnetic fields are not easily shielded by objects or materials. The nature of a magnetic field can be illustrated by considering a household appliance. When the appliance is energized by being plugged into an outlet but not turned on, no current flows through it. Under such circumstances, an electric field is generated around the cord and appliance, but no magnetic field is created. If the appliance is switched on, the electric field would still be present and a magnetic field would also be created. The electric field strength is directly related to the magnitude of the voltage from the outlet and the magnetic field strength is directly related to the magnitude of the current flowing in the cord and appliance.

The magnetic field levels of PG&E's overhead and underground transmission lines will vary depending upon the customer power usage. Magnetic field strengths for typical PG&E transmission line loadings at the edge of rights-of-way are approximately 10 to 90 mG (NEET West and PG&E 2017). Under peak load conditions, the magnetic fields at the edge of the right-

of-way would not likely exceed 150 mG. The strongest magnetic fields around the outside of a substation come from the power lines entering and leaving the station. The strength of the magnetic fields from transformers and other equipment decreases quickly with distance, such that beyond the substation fence, these magnetic fields are typically indistinguishable from background levels (NEET West and PG&E 2017).

2.9.2 Scientific Background and Regulations Applicable to EMF

EMF Research

For more than 20 years, questions have been asked regarding the potential effects of EMFs from power lines and research has been conducted to provide some basis for response. Earlier studies focused primarily on interactions with the electric fields from power lines. In the late 1970s, the subject of magnetic field interactions began to receive additional public attention and research levels increased. A substantial amount of research investigating both electric and magnetic fields has been conducted over the past several decades; however, much of the body of national and international research regarding EMF and public health risks remains contradictory or inconclusive.

Research related to EMF can be grouped into three general categories: cellular level studies, animal and human experiments, and epidemiological studies. Epidemiological studies have provided mixed results, with some studies showing an apparent relationship between magnetic fields and health effects while other similar studies not showing such a relationship. Laboratory studies and studies investigating a possible mechanism for health effects (mechanistic studies) provide little or no evidence to support this link.

Since 1979, public interest and concern specifically regarding magnetic fields from power lines has increased. The increase has generally been attributed to publication of the results of a single epidemiological study (Wertheimer and Leeper 1979). This study observed a statistical association between the high-current configuration (the “wire code”) of electric power lines outside of homes in Denver and the incidence of childhood cancer. The “wire code” was assumed to be related to current flow of the line. The study did not take measurements of magnetic field intensity. Since publication of the Wertheimer and Leeper study, many epidemiological, laboratory, and animal studies regarding EMF have been conducted.

Methods to Reduce EMF

EMF levels from transmission lines can be reduced in three primary ways: shielding, field cancellation, or increasing the distance from the source. Shielding, which reduces exposure to electric fields, can be actively accomplished by placing trees or other physical barriers along the transmission line right-of-way. Shielding also results from existing structures the public may use or occupy along the line. Since electric fields can be blocked by most materials, shielding is effective for the electric fields but is not effective for magnetic fields.

Magnetic fields can be reduced either by cancellation or by increasing distance from the source. Cancellation is achieved in two ways. A transmission line circuit consists of three “phases”: three separate wires (conductors) on a transmission tower. The configuration of these three conductors can reduce magnetic fields. First, when the configuration places the three

conductors closer together, the interference, or cancellation, of the fields from each wire is enhanced. This technique has practical limitations because of the potential for short circuits if the wires are placed too close together. There are also worker safety issues to consider if spacing is reduced. In underground lines, the three phases typically can be placed much closer together than for overhead lines because the cables have dielectric insulation.

The distance between the source of fields and the public can be increased by either placing the wires higher aboveground, burying underground cables deeper, or by increasing the width of the right-of-way. For transmission lines, these methods can prove effective in reducing fields because the reduction of the field strength drops rapidly with distance.

Scientific Panel Reviews

Numerous panels of expert scientists have convened to review the data relevant to the question of whether exposure to power-frequency EMF is associated with adverse health effects. These evaluations have been conducted in order to advise governmental agencies or professional standard-setting groups. These panels of scientists first evaluate the available studies individually, not only to determine what specific information they can offer, but also in terms of the validity of their experimental design, methods of data collection, analysis, and suitability of the authors' conclusions to the nature and quality of the data presented. Subsequently, the individual studies, with their previously identified strengths and weaknesses, are evaluated collectively in an effort to identify whether there is a consistent pattern or trend in the data that would lead to a determination of possible or probable hazards to human health resulting from exposure to these fields.

These reviews include those prepared by international agencies such as the World Health Organization (WHO), the international Non-Ionizing Radiation Committee of the International Radiation Protection Association, and governmental agencies of a number of countries, such as the U.S. Environmental Protection Agency, the National Radiological Protection Board of the United Kingdom, the Health Council of the Netherlands, and the French and Danish Ministries of Health. As noted below, these scientific panels have varied conclusions on the strength of the scientific evidence suggesting that power frequency EMF exposures pose any health risk.

In May 1999, the National Institute of Environmental Health Science (NIEHS) submitted to Congress its report titled, *Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields*, containing the following conclusion regarding EMF and health effects:

> Using criteria developed by the International Agency for Research on Cancer (IARC), none of the Working Group considered the evidence strong enough to label ELF-EMF exposure as a known human carcinogen or probable human carcinogen. However, a majority of the members of this Working Group concluded that exposure to power-line frequency ELF-EMF is a possible carcinogen.

In June 2001, a scientific working group of IARC (an agency of WHO) reviewed studies related to the carcinogenicity of EMF. Using standard IARC classification, magnetic fields were classified as "possibly carcinogenic to humans" based on epidemiological studies. "Possibly carcinogenic to humans" is a classification used to denote an agent for which there is limited evidence of carcinogenicity in humans and less than sufficient evidence of carcinogenicity in experimental animals.

On behalf of the CPUC, the California Department of Health Services (DHS) completed a comprehensive review of existing studies related to EMF from power lines and potential health risks. This risk evaluation was undertaken by three staff scientists with the DHS. Each of these scientists is identified in the review results as an epidemiologist, and their work took place from 2000 to 2002. The results of this review, titled *An Evaluation of the Possible Risks from Electric and Magnetic Fields from Power Lines, Internal Wiring, Electrical Occupations, and Appliances,* were published in June 2002. The conclusions contained in the executive summary are provided below:

- To one degree or another, all three of the DHS scientists are inclined to believe that EMFs can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig's Disease, and miscarriage.

- They strongly believe that EMFs do not increase the risk of birth defects or low birth weight.

- They strongly believe that EMFs are not universal carcinogens, since there are a number of cancer types that are not associated with EMF exposure.

- To one degree or another, they are inclined to believe that EMFs do not cause an increased risk of breast cancer, heart disease, Alzheimer's Disease, depression, or symptoms attributed by some to sensitivity to EMFs. However, all three scientists had judgments that were "close to the dividing line between believing and not believing" that EMFs cause some degree of increased risk of suicide.

- For adult leukemia, two of the scientists are "close to the dividing line between believing or not believing" and one was "prone to believe" that EMFs cause some degree of increased risk.

The report indicates that the DHS scientists are more inclined to believe that EMF exposure increased the risk of the health problems than the majority of the members of scientific committees that have previously convened to evaluate the scientific literature. With regard to why the DHS review's conclusions differ from those of other recent reviews, the report states:

> The three DHS scientists thought there were reasons why animal and test tube experiments might have failed to pick up a mechanism or a health problem; hence, the absence of much support from such animal and test tube studies did not reduce their confidence much or lead them to strongly distrust epidemiological evidence from statistical studies in human populations. They therefore had more faith in the quality of the epidemiological studies in human populations and hence gave more credence to them.

While the results of the DHS report indicate these scientists believe that EMF can cause some degree of increased risk for certain health problems, the report did not quantify the degree of risk or make any specific recommendations to the CPUC.

In addition to the uncertainty regarding the level of health risk posed by EMF, individual studies and scientific panels have not been able to determine or reach consensus regarding what level of magnetic field exposure might constitute a health risk. In some early epidemiological studies,

increased health risks were discussed for daily time-weighted average field levels greater than 2 mG. However, the IARC scientific working group indicated that studies with average magnetic field levels of 3 to 4 mG played a pivotal role in their classification of EMF as a possible carcinogen.

The 2007 WHO [Environmental Health Criteria 238] report concluded that:

- Evidence for a link between ELF (50 to 60 Hz) magnetic fields and health risks is based on epidemiological studies demonstrating a consistent pattern of increased risk for childhood leukemia. However, "…virtually all of the laboratory evidence and the mechanistic evidence fail to support a relationship between low-level ELF magnetic fields and changes in biological function or disease status…the evidence is not strong enough to be considered causal but sufficiently strong to remain a concern."

- "For other diseases, there is inadequate or no evidence or health effects at low exposure levels."

2.9.3 Policies, Standards, and Regulations

A number of counties, states, and local governments have adopted or considered regulations or policies related to EMF exposure. The reasons for these actions have been varied; in general, however, the actions can be attributed to addressing public reaction to and perception of EMF as opposed to responding to the findings of any specific scientific research.

In 1991, the CPUC initiated an investigation into electric and magnetic fields associated with electric power facilities. This investigation explored the approach to potential mitigation measures for reducing public health impacts and possible development of policies, procedures or regulations. Following is a brief summary of CPUC guidelines and regulatory activity regarding EMF.

CPUC Decision No. 93-11-013

In Decision No. 93-11-013, the CPUC took interim steps to address EMFs related to electric utility facilities and power lines. Based on its investigation of the possible impacts of EMF exposure associated with electric utility installations, the CPUC recommended the following:

- No-cost and low-cost steps to reduce EMF levels;

- Workshops to develop EMF design guidelines;

- Uniform residential and workplace EMF measurement programs;

- Stakeholder and public involvement; and

- Funding for educational and research programs.

In explaining and justifying its decision, the CPUC stated that although the scientific community had not yet isolated the impact, if any, of utility-related EMF exposures on public health, other jurisdictions and agencies have concluded that the best response to EMFs is to avoid

unnecessary new exposure to EMFs if such avoidance can be achieved at a cost that is reasonable in light of the risk identified. The decision stated that "low-cost" steps to reduce EMF levels should be defined as roughly 4 percent of the total cost of a budgeted project, but emphasized that this should not be a hard-and-fast rule and that utilities should implement more or less costly solutions as they are determined to be effective.

CPUC Decision No. 06-01-042 and More Information

In 2006, the CPUC revisited the EMF issue it had covered in its Decision No. 93-11-013 and affirmed its "low-cost/no-cost" policy for mitigation of EMF exposure for new utility transmission and substation projects. Decision No. 06-01-042 also reaffirmed the CPUC's policy of using a benchmark of 4 percent of transmission and substation project costs for EMF mitigation. In addition, Decision No, 06-01-042 adopted rules and policies to improve utility design guidelines for reducing EMF, and provided for a utility workshop to implement the policies and standardize design guidelines. Finally, Decision No. 06-01-042 restated the CPUC's position that it is unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences.

The CPUC's EMF Design Guidelines for Electrical Facilities (July 21, 2006) document is available at www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=4884. More information about activities taken by the CPUC with respect to EMFs can be found at: www.cpuc.ca.gov/General.aspx?id=4879.

Chapter 3
Alternatives Description

This section describes the alternatives that are evaluated throughout this Draft Environmental Impact Report (DEIR). Prior to development of this DEIR, potential alternatives were screened in an Alternatives Screening Report (ASR) (Appendix B). The alternatives carried forward for full analysis in this DEIR are the product of this screening process, which is summarized in Section 3.2. Refer to Appendix B for a detailed discussion of the ASR screening process and results.

3.1 CEQA Requirements for Alternatives

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) evaluate a reasonable range of potentially feasible alternatives to the proposed project, including the No Project Alternative. The No Project Alternative allows decision-makers to compare the impacts of approving the action against the impacts of not approving the action. While there is no clear rule for determining a reasonable range of alternatives to the proposed project, CEQA provides guidance that can be used to define the range of alternatives for consideration in the environmental document.

The alternatives described in an EIR must feasibly accomplish most of the basic project objectives, should reduce or eliminate one or more of the significant impacts of the proposed project (although the alternative could have greater impacts overall), and must be potentially feasible (CEQA Guidelines Section 15126.6[a]). In determining whether alternatives are potentially feasible, Lead Agencies are guided by the general definition of feasibility found in State CEQA Guidelines Section 15364: “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” In accordance with CEQA Guidelines Section 15126.6(f), the Lead Agency should consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, and jurisdictional boundaries in determining the feasibility of alternatives to be evaluated in an EIR. An EIR must briefly describe the rationale for selection and rejection of alternatives and the information that the Lead Agency relied on in making the selection. It also should identify any alternatives that were considered by the Lead Agency but were rejected as infeasible during the scoping process and briefly explain the reason for their exclusion (CEQA Guidelines Section 15126.6[c]).

CEQA Guidelines Section 15126.6(e)(2) states that “if the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.”

3.2 Alternatives Screening Process

The California Public Utilities Commission (CPUC) conducted an alternatives screening process for the Proposed Project, as documented in the ASR (Appendix B). Alternatives considered in the

ASR included those identified in the Applicants' Proponent's Environmental Assessment (PEA), as well as those independently developed by the CPUC based on public and stakeholder scoping comments and a preliminary evaluation of environmental impacts of the Proposed Project.

The screening process considered the following primary criteria:

- Does the alternative accomplish all or most of the basic project objectives?
- Is the alternative potentially feasible (e.g., from economic, environmental, legal, social, and technical standpoints)?
- Does the alternative avoid or substantially lessen any significant effects of the Proposed Project?

3.2.1 Consistency with Basic Project Objectives

As described in Chapter 2, *Project Description,* the CPUC identified the following basic project objectives for the Proposed Project:

- **Transmission Objective:** Mitigate thermal overload and low voltage concerns in the Los Padres 70 kV system during Category B contingency scenarios, as identified by the California Independent System Operator (CAISO) in its 2013-2014 Transmission Plan.
- **Distribution Objective:** Accommodate expected future increased electric distribution demand in the Paso Robles Distribution Planning Area (DPA), particularly in the anticipated growth areas in northeast Paso Robles.

The screening process considered whether a potential alternative addressed at least one of the two basic objectives. Because the two fundamental project objectives address two essentially separate (although interconnected in some ways) issues, alternatives addressing either one of the two objectives could potentially be combined or constructed in tandem to meet all of the basic project needs. Additionally, because the Proposed Project involves two primary components (i.e., substation and a new/reconductored power line), certain alternatives (e.g., substation siting alternatives or power line routing alternatives) may not on their own meet the project objectives, but could be combined with other alternatives to meet the project needs.

3.2.2 Feasibility

The alternatives screening process also considered whether the alternative is potentially feasible. This included evaluation of the following factors:

- **Economic Feasibility.** Is the alternative so costly that implementation would be prohibitive? CEQA Guidelines Section 15126.6(b) requires consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of the project objectives, or would be more costly". The Court of Appeals determined in Citizens of Goleta Valley v. Board of Supervisors (2nd Dist. 1988) 197 Cal.App.3d 1167, p. 1181 (see also Kings County Farm Bureau v. City of Hanford [5th Dist. 1990] 221 Cal.App.3d 692, 736): "[t]he fact that an alternative may be more expensive or less profitable is not sufficient to show that the

alternative is financially infeasible. What is required is evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project."

- **Environmental Feasibility.** Would implementation of the alternative cause substantially greater environmental damage than the Proposed Project, thereby making the alternative clearly inferior from an environmental standpoint? To the extent that the alternative could introduce a new significant effect, or increase the severity of a significant effect, this could render the alternative environmentally infeasible.

- **Legal Feasibility.** Does the alternative have the potential to encounter lands that have legal protection that may prohibit or substantially limit the feasibility of permitting a substation and power line, or energy storage facility? Lands that are afforded legal protections that would prohibit the construction of the project, or that would require an act of Congress for permitting, are generally considered infeasible locations for the project. These land use designations include wilderness areas, wilderness study areas, restricted military bases, airports, and Native American reservations.

- **Social Feasibility.** Is the alternative inconsistent with an adopted goal or policy of the CPUC or other applicable agency?

- **Technical Feasibility.** Is the alternative potentially feasible from a technological perspective, considering available technology? Are there any construction, operation, or maintenance constraints that cannot be overcome? Can the transmission, distribution, or energy storage facilities associated with the alternative be feasibly connected to existing transmission and/or distribution system infrastructure?

3.2.3 Potential to Eliminate Significant Environmental Effects

Finally, the screening process determined whether the alternative could avoid or substantially lessen any of the significant effects of the Proposed Project. At the time the Draft ASR was prepared, the following impacts were considered potentially significant and unavoidable:

- Aesthetic impacts from the placement of the approximately 15-acre Estrella Substation along Union Road, which traverses an area typified by rolling hills and vineyards;

- Aesthetic impacts from the new overhead 70 kV power line, particularly in the area of Golden Hill Road, where the line would pass through industrial, commercial, and residential areas that do not currently have overhead power lines; and

- Agricultural resources impacts from permanent conversion of at least 15 acres of Important Farmland as a result of construction of the proposed Estrella Substation and power line.

Additionally, the screening process at the Draft ASR phase considered potential impacts of the Proposed Project on biological resources and cultural resources, as well wildfire risk, although it was anticipated that applicant proposed measures (APMs) and/or mitigation measures could reduce these potential impacts to a level that is less than significant.

3.2.4 Alternatives Screening Process Results

Figure 3-1 shows a summary map depicting the alternatives considered in the screening analysis. Refer to Appendix B for a detailed description of the results, including the reasoning for retaining or screening out alternatives for full analysis in the DEIR.

3.3 Project Alternatives Carried Forward for Analysis in this DEIR

3.3.1 Alternative SS-1: Bonel Ranch Substation Site

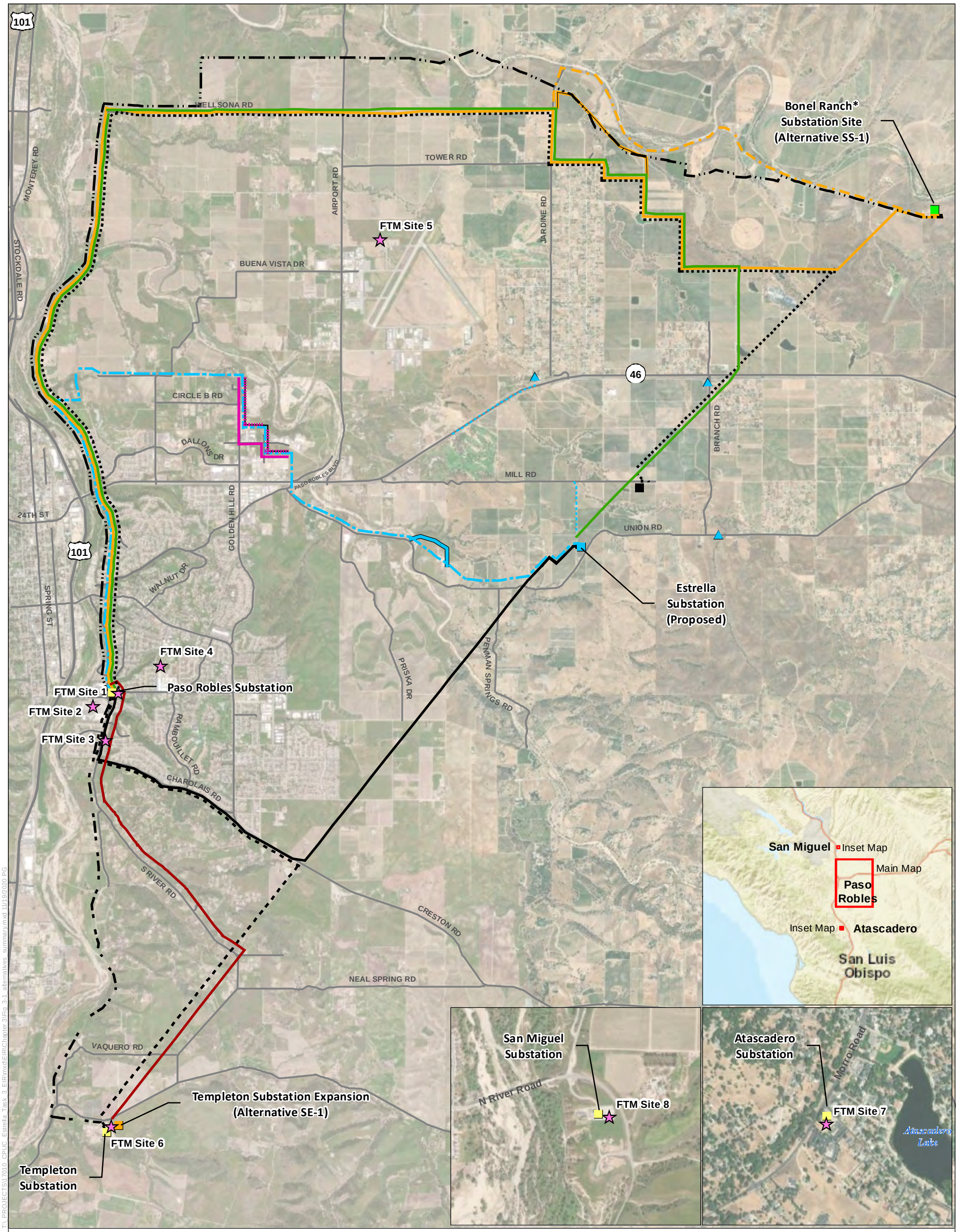
Description

The Bonel Ranch (formerly McDonald Ranch) Substation Site is situated on an approximately 72-acre parcel, of which the 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 Bonel Ranch site is located within the County of San Luis Obispo North County Planning Area, El Pomar-Estrella Sub Area, and is currently used to grow alfalfa. Adjacent land uses are also agricultural, including fallow land, livestock grazing, alfalfa, dry farming, and vineyards. Scattered residences are present in the area.

If the substation were constructed at the Bonel Ranch Substation Site, it would be connected to the existing Paso Robles Substation via a 70 kV power line following Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1 (see Section 3.3.3). Figure 3-2 shows Alternative SS-1: Bonel Ranch Substation Site.

Electrical components, equipment, and site infrastructure included in a substation located at this alternative site would be essentially the same as for the proposed Estrella Substation. Refer to Section 2.3 of Chapter 2, *Project Description,* for information on the facilities/components that would be included within the substation. The impervious surface area of the substation at the Bonel Ranch site would also be roughly the same as the proposed Estrella Substation, at approximately 2 acres. Figure 3-3 shows a detailed view of the substation layout under Alternative SS-1.

On-site stormwater infrastructure/features to be included as part of the facilities for Alternative SS-1 would be the same as the proposed Estrella Substation and would include a secondary containment basin in the 230 kV substation and a concrete skimmer and weir device within the 70 kV substation. The secondary containment basin would measure 42 feet long by 36 feet wide by 2.5 feet deep. The quantity of mineral oil to be used for transformers for Alternative SS-1 would be the same (approximately 15,290 gallons) as the Proposed Project.



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Proposed Project

- Estrella Substation
- Proposed Project 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives Carried Forward for Full Analysis

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Other Project Alternatives Considered

- Alternative PLR-1D: Estrella Route to Bonel Ranch, Option #2
- Alternative SS-2: Mill Road West Substation Site
- Alternative PLR-1B: Estrella Route to Mill Road West
- Alternative PLR-2: Creston Route (Variations not shown; not carried forward)
- Alternative SE-PLR-1:Templeton-Paso 70kV Route (Existing)
- Alternative SE-PLR-3: Templeton-Paso Creston Route

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 3-1
Alternatives
Summary Map

Note: The route variations shown are offset in order to display the alignments of the alternative routes that may overlap in places.

* formerly McDonald Ranch

Source: NEET West and PG&E 2017

Estrella Substation and
Paso Robles Area Reinforcement Project

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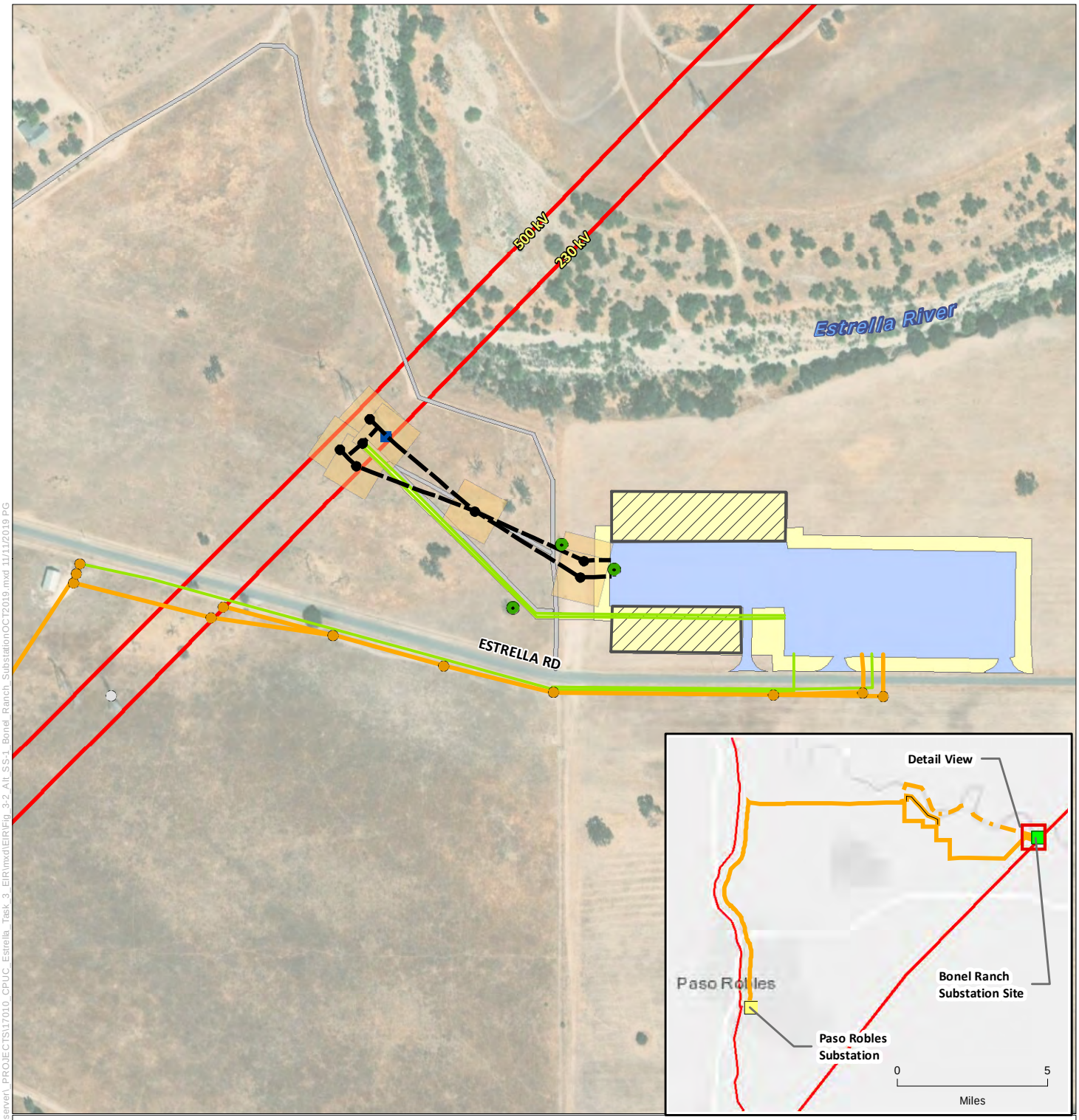


Basebap Sources: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,

Existing Infrastructure

- 230 kV Tower
- Transmission Lines
- Paso Robles Substation

N

0 250 500

Feet

Horizon WATER and ENVIRONMENT

Substation Alternative (SS-1)

- Existing 230 kV Pole to be Removed
- New 230kV Structures
- 230kV Interconnection
- Telecommunications Line
- Oak Tree Trimming/Removal
- Substation Permanent Disturbance Area
- Substation Temporary Disturbance Area
- Construction Staging Area
- Pole Temporary Work Area
- Access Routes

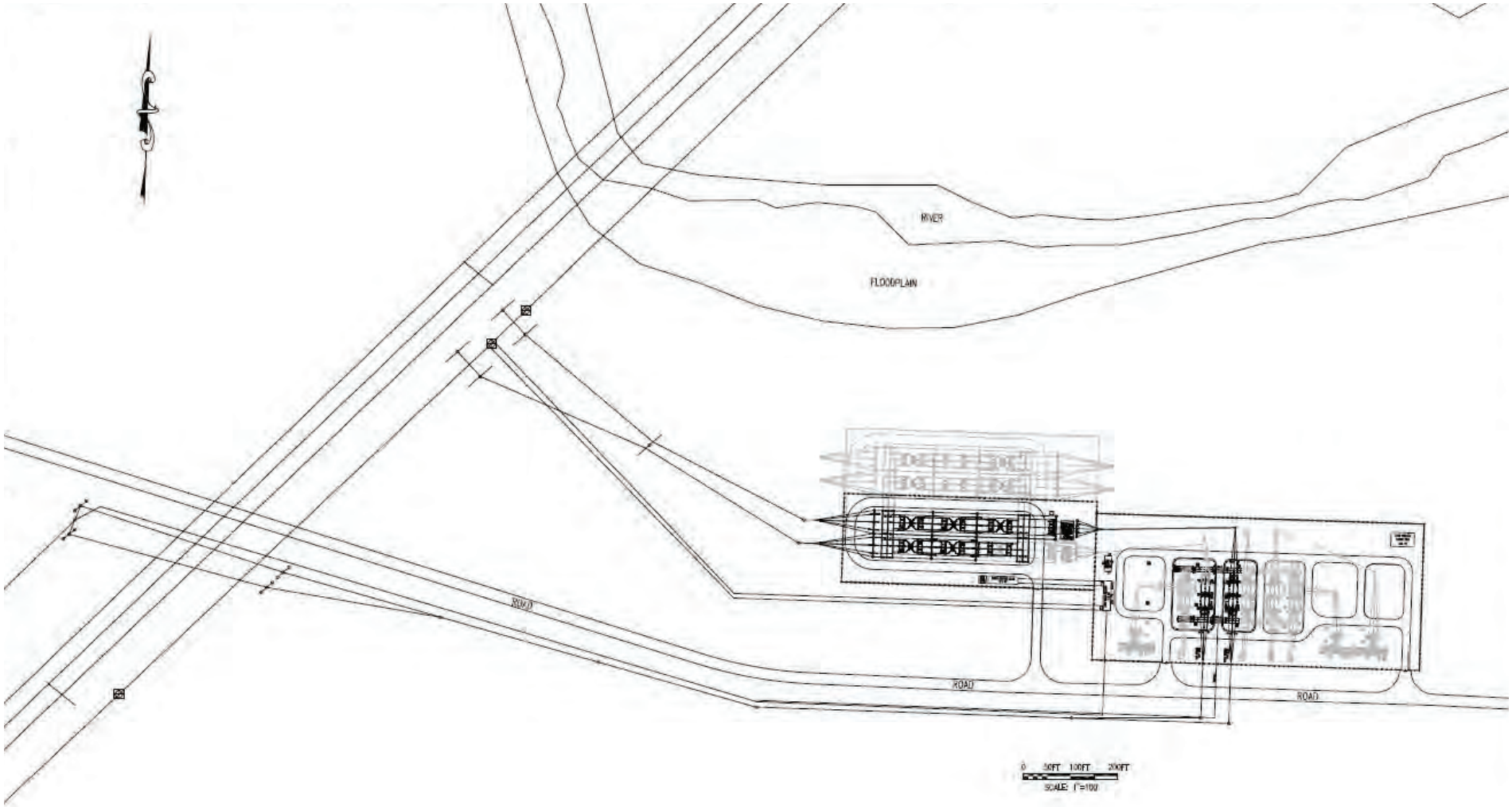
Alignment Alternative (PLR-1C)

- 70kV Poles
- 70kV Power Line
- Telecommunications Line

Figure 3-2
Alternative SS-1
Bonel (formerly McDonald) Ranch Substation Site

Source: NEET West and PG&E 2017; California Energy Commision 2019

Estrella Substation and Paso Robles Area Reinforcement Project



Source: PG&E and HWT 2019

Figure 3-3. Alternative SS-1:
Bonel Ranch Substation Site – Detailed Layout View

Estrella Substation and Paso Robles Area
Reinforcement Project

Construction

In general, construction processes for Alternative SS-1 would be similar to those for the Estrella Substation component of the Proposed Project. Refer to Section 2.5 of Chapter 2, *Project Description,* for description of the construction processes/steps involved for the substation construction. The construction schedule for Alternative SS-1 would be slightly longer (by 1 month) compared to the proposed Estrella Substation due to a longer 230 kV interconnection. Table 3-1 shows the construction phasing and duration for Alternative SS-1.

Table 3-1. Alternative SS-1: Preliminary Construction Phasing, Tasks, and Schedule / Task Duration

Project Phase	Task	Estimated Work Dates	Duration Longer than Proposed Project?
Substation Site	Site Work Area Preparation Mobilization	Month 1-2	No
	Access Roads	Month 1	No
	Fence and Gate Installation	Month 2	No
230 kV Substation	Foundation Construction	Month 2-3	No
	Ground Grid / Conduit Installation	Month 3-4	No
	Steel / Bus Erection	Month 4	No
	Install Yard Rock	Month 4-5	No
	Transformer and Equipment Delivery and Installation	Month 4-5	No
	Control Enclosure Delivery and Install	Month 5	No
	Equipment Delivery and Install	Month 5-6	No
	Cable Installation and Termination	Month 5-6	No
	Testing and Commissioning	Month 6-7	No
	Cleanup and Restoration	Month 7	No
70 kV Substation	Foundation Construction	Month 2-3	No
	Ground Grid / Conduit Installation	Month 2-3	No
	Steel / Bus Erection	Month 3-4	No
	Control Enclosure Delivery and Install	Month 4	No
	Equipment Delivery and Installation	Month 4	No
	Cable Installation and Termination	Month 4-5	No
	Install Yard Rock	Month 5	No

Project Phase	Task	Estimated Work Dates	Duration Longer than Proposed Project?
	Cleanup and Restoration	Month 5	No
	Testing and Commissioning	Month 6	No
230 kV Transmission Interconnection	Foundation Tower Installation / Removal of One Tower	Month 2-4	Yes
	Conductor	Month 4-5	Yes
	Cleanup and Restoration	Month 6	Yes

The types of equipment to be used in each phase of construction for Alternative SS-1 and hours per day that equipment would be used during construction would be the same as for the Proposed Project (refer to Table 2-10 in Chapter 2, *Project Description,* and Appendix J of the Applicants' PEA for information).

Because geotechnical studies have not been completed for the Bonel Ranch site, the volume of soil/material to be imported/exported during construction and the associated number and length of haul trips during construction cannot be determined. However, due to the site's close proximity to the Estrella River, it is possible that soft soils could be encountered during construction of the substation or 230 kV connection, which could necessitate greater excavation and off-haul of unsuitable soils and/or importation of engineered fills.

Construction staging areas for Alternative SS-1 would be located immediately adjacent to the proposed substation, as shown on Figure 3-2. During construction, parking areas for construction workers would be located at staging areas and/or temporary work areas. Construction of the substation and 230 kV interconnection would be unlikely to necessitate any temporary road or lane closures; however, any lane changes would be in accordance with traffic control plans filed with the encroachment permit application. The number of construction vehicle trips and the frequency of the trips for Alternative SS-1 is estimated to be the same as for the Proposed Project (refer to Table 4.17-3 in Section 4.17, "Transportation"); although, as noted above, the number and frequency of haul trips associated with soil import/export cannot be determined since geotechnical studies have not been completed. Helicopters would be used for construction of the facilities in Alternative SS-1. Helicopter flight paths would generally be between the airport and the helicopter landing zones.

The amount of water necessary to construct Alternative SS-1 is expected to be similar to the proposed Estrella Substation; however, geotechnical studies would be needed to determine the amount of water needed for soil compaction. As described in Chapter 2, *Project Description,* construction of the substation is estimated to require 8.3 million gallons of water, with the majority (75 percent) of the water used for dust control. Water sources are anticipated to be the same as for the Proposed Project. Short-term irrigation water would not be needed for revegetation efforts at any temporary disturbance areas for Alternative SS-1.

Horizon West Transmission (HWT) anticipates that the 230 kV interconnection for Alternative SS-1 would require more overall vegetation removal (both temporary and permanent) compared to the proposed Estrella Substation due to the presence of riparian habitat that extends along the Estrella River. However, the precise amount of riparian habitat removal required is unknown because access to the property for conducting field surveys was denied by the landowner.

Operation and Maintenance

Operation and maintenance of Alternative SS-1 would be similar to that of the proposed Estrella Substation. Refer to Chapter 2, *Project Description,* for detailed description of anticipated operations and maintenance activities. Specifically, the amount and frequency of hazardous materials transport and disposal required during operation of Alternative SS-1 would be the same as the proposed Estrella Substation. The mineral oil stored in the transformer on the 230 kV substation would be filtered and replaced on site.

Vehicles accessing the substation during operation would use Estrella Road. The estimated number of vehicle trips and frequency of the trips necessary for operation and maintenance of the facilities under Alternative SS-1 would be the same as for the Proposed Project.

3.3.2 Alternative PLR-1A: Estrella Route to Estrella Substation

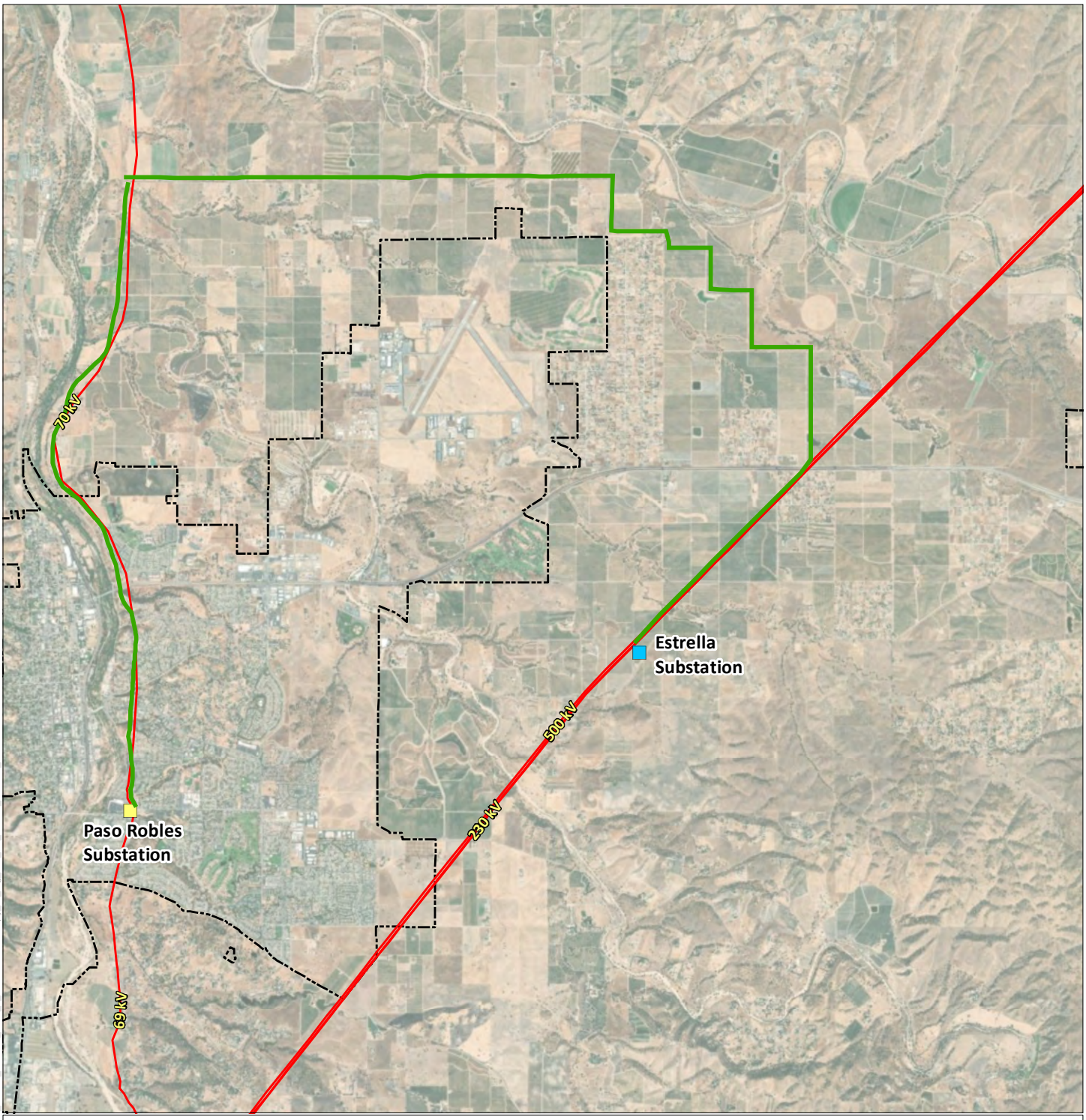
Description

Alternative PLR-1A is an alternative route for the 70 kV power line that would connect the proposed Estrella Substation to the Paso Robles Substation. This route would allow for the power line to pass north of the Paso Robles Municipal Airport in a low-density area (see Figure 3-4). Starting at the Estrella Substation, Alternative PLR-1A would follow the existing 230/500 kV transmission corridor northeast until veering north at roughly the intersection of the transmission corridor with State Route (SR) 46. The route would then zig zag in a northwest direction through agricultural lands until meeting Wellsona Road. At this point, the route would follow Wellsona Road due west until meeting the existing San Miguel-Paso Robles 70 kV Transmission Line. This existing line would then be reconductored south to the existing Paso Robles Substation.

Land uses surrounding the Estrella Route primarily consist of urban and rural residential developments and agricultural areas dominated by vineyards. Table 3-2 shows the length of the Alternative PLR-1A components.

Table 3-2. Alternative PLR-1A: Length of Power Line Components

Component	Length of Improvements / New Construction (miles)
New Double-Circuit 70 kV Power Line	10.5
Reconductoring of Existing 70 kV San Miguel-Paso Robles Power Line	6
Total	**16.5**



Basebap Sources: Source: Esri, DigitalGlobe, GeoEye,

Proposed Project

Estrella Substation

Alternative

Alternative PLR-1A: Estrella Route to Estrella Substation

Existing Infrastructure

Existing Substations

Transmission Line

Paso Robles City Limits

N

0 1

Miles

Horizon WATER and ENVIRONMENT

Source: Source: NEET West and PG&E 2017

Figure 3-4
Alternative PLR-1A: Estrella Route to Estrella Substation - Overview

Note: The route variations shown are offset in order to display the alignments of the alternative routes.

Estrella Substation and Paso Robles Area Reinforcement Project

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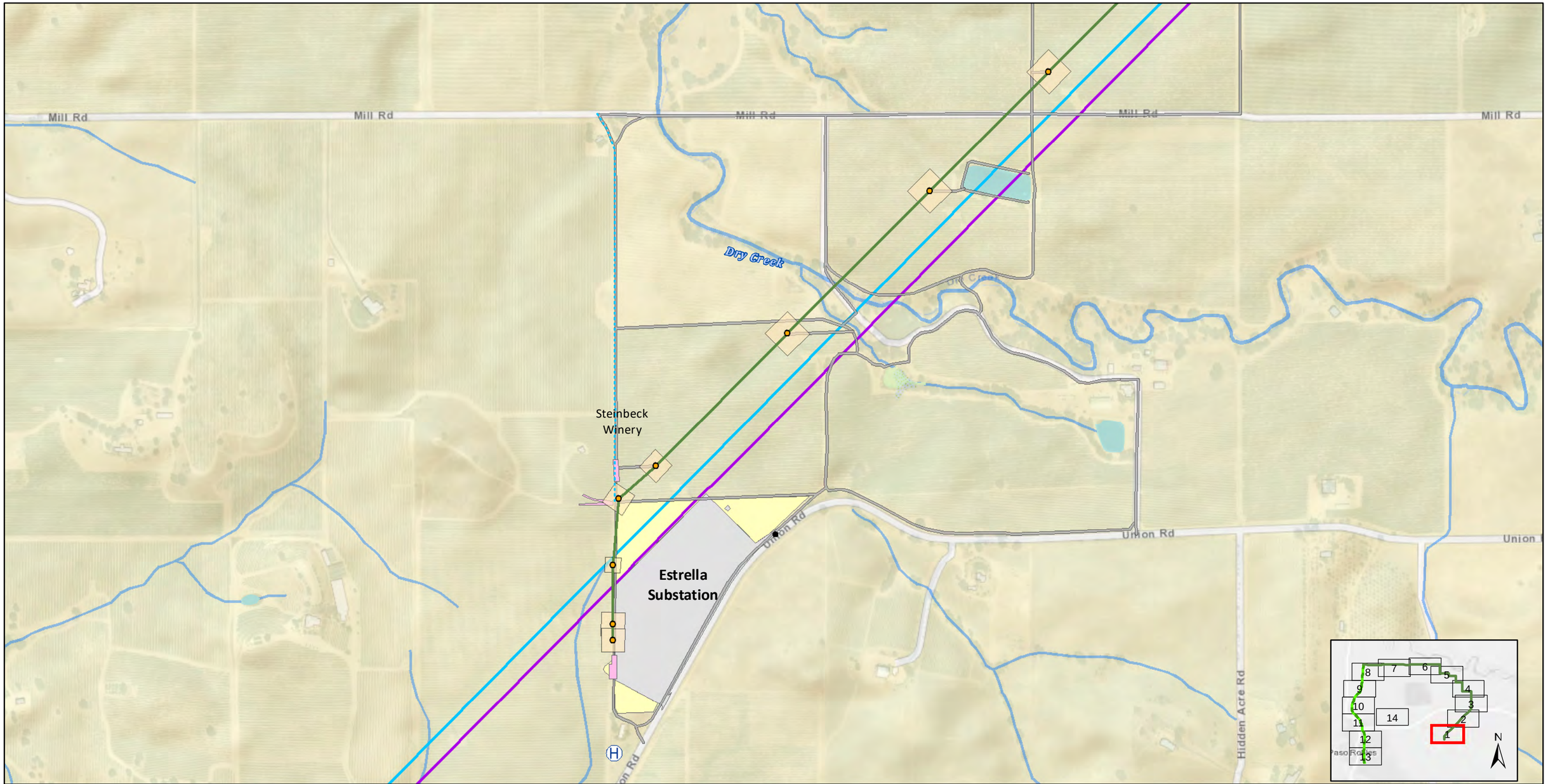

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 1 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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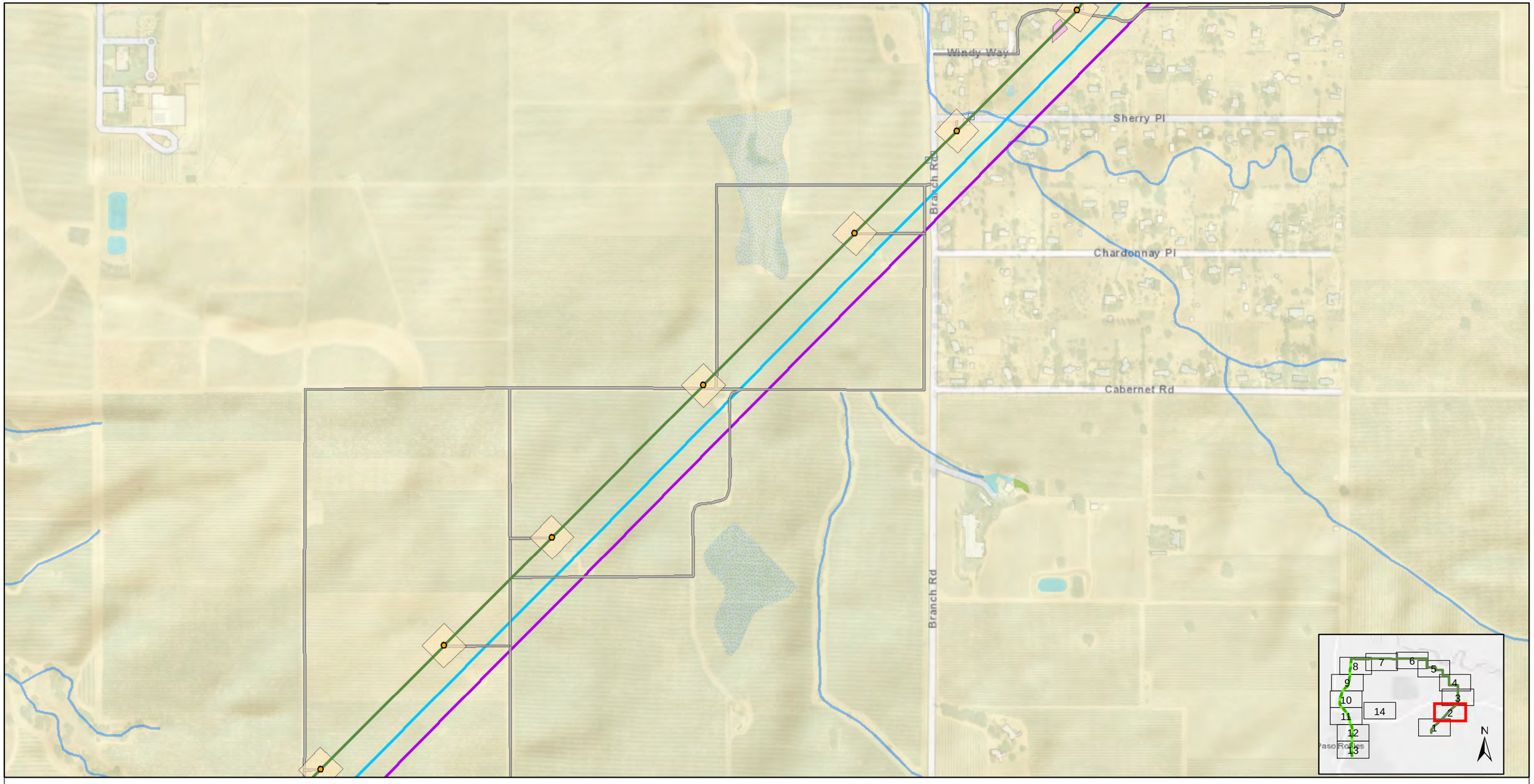

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Basebap Sources: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

N

0 125 250 500
Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)

- Substation Interconnection
- Temporary Substation Staging Area
- Substation Permanent Disturbance Area
- New Distribution Line Segments

Contruction Temporary Disturbance Areas

- Pole Temporary Work Area
- Construction Staging Area
- Temporary Pull Sites
- Temporary Crossing Structure Work Area
- Access Routes
- Helicopter Landing Zones

Existing Infrastructure

- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 2 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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Basebap Sources: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Alternative Components
- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)
- Substation Interconnection
- Temporary Substation Staging Area
- Substation Permanent Disturbance Area
- New Distribution Line Segments

Contruction Temporary Disturbance Areas
- Pole Temporary Work Area
- Construction Staging Area
- Temporary Pull Sites
- Temporary Crossing Structure Work Area
- Access Routes
- Helicopter Landing Zones

Existing Infrastructure
- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

National Wetland Inventory
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 3 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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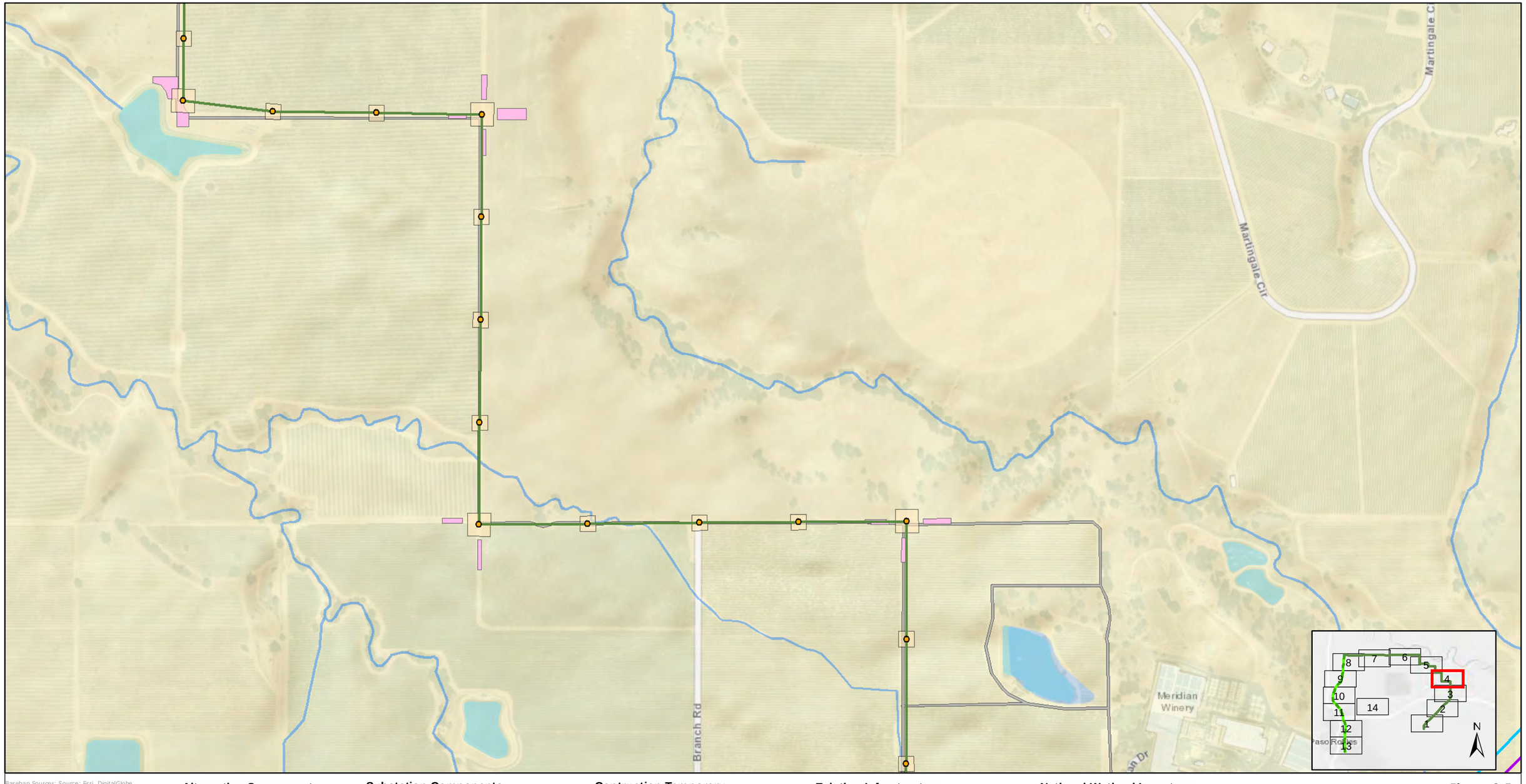

Basebap Sources: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

N

0 125 250 500
Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)

- Substation Interconnection
- Temporary Substation Staging Area
- Substation Permanent Disturbance Area
- New Distribution Line Segments

Contruction Temporary Disturbance Areas

- Pole Temporary Work Area
- Construction Staging Area
- Temporary Pull Sites
- Temporary Crossing Structure Work Area
- Access Routes
- Helicopter Landing Zones

Existing Infrastructure

- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 4 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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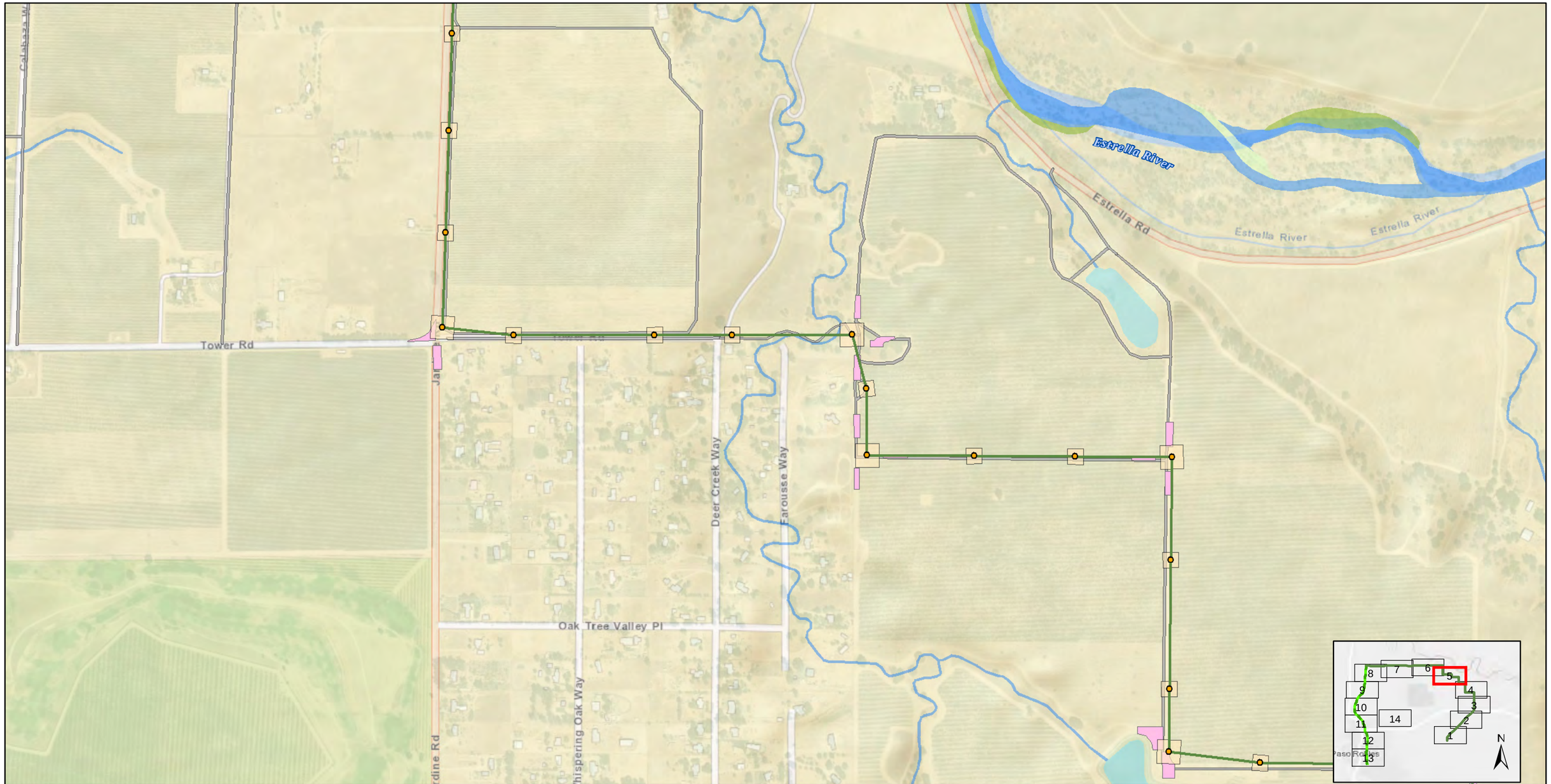

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N

0 125 250 500
Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)

- Substation Interconnection
- Temporary Substation Staging Area
- Substation Permanent Disturbance Area
- New Distribution Line Segments

Contruction Temporary Disturbance Areas

- Pole Temporary Work Area
- Construction Staging Area
- Temporary Pull Sites
- Temporary Crossing Structure Work Area
- Access Routes
- Helicopter Landing Zones

Existing Infrastructure

- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 5 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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Paso Robles

Wilderness Ln

Hanks Pl

Jardine Rd

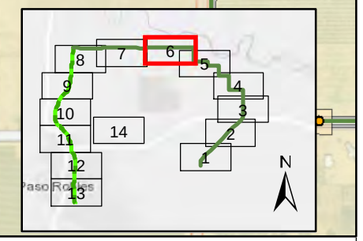
Calabaza Way

Tower Rd

Tower Rd

Tower Rd

Tower Rd



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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)

- Substation Interconnection
- Temporary Substation Staging Area
- Substation Permanent Disturbance Area
- New Distribution Line Segments

Contruction Temporary Disturbance Areas

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- Temporary Pull Sites
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- Access Routes
- Helicopter Landing Zones

Existing Infrastructure

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- 230 kV Transmission Line
- 70 kV Power Line

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- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 6 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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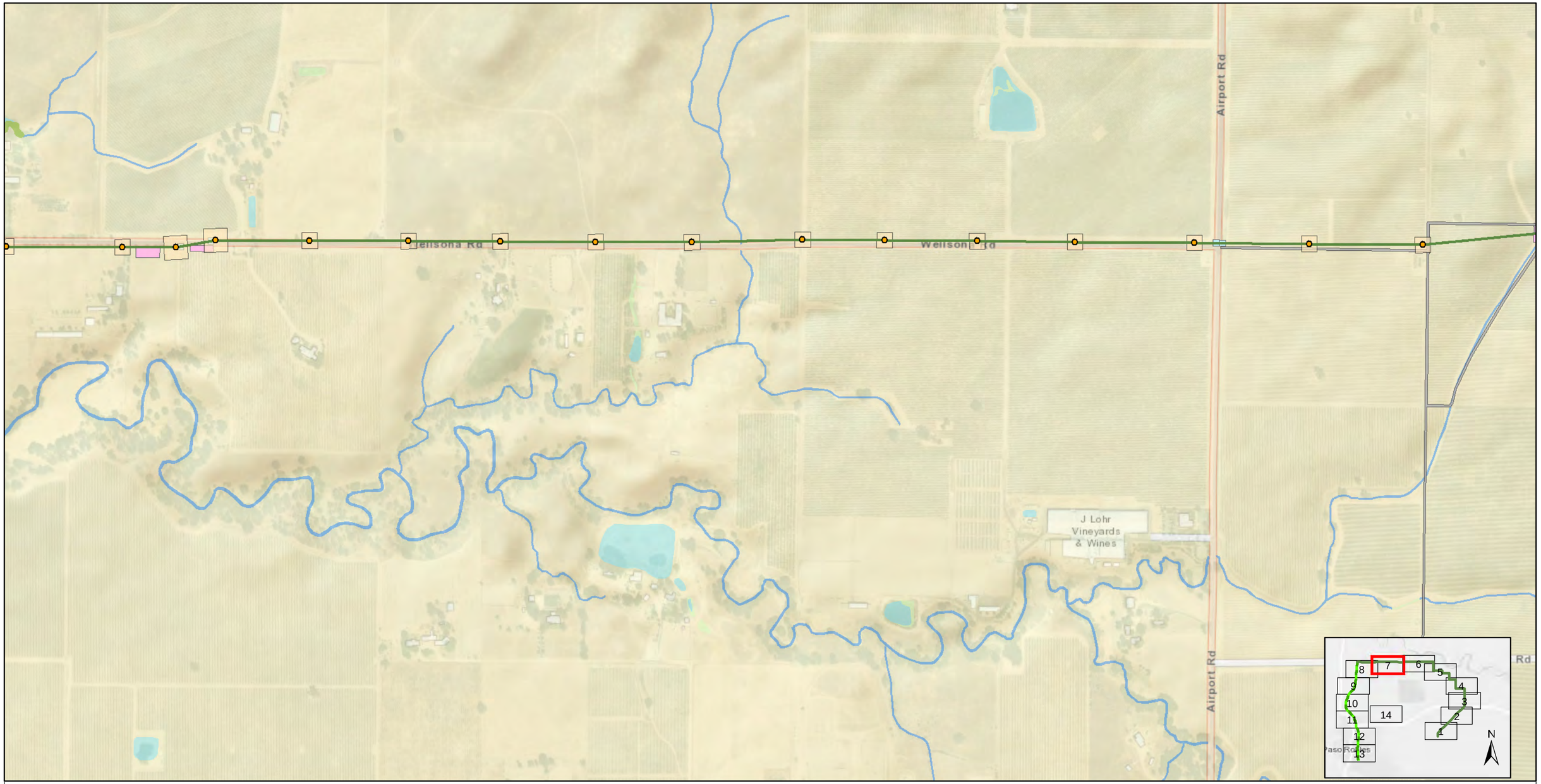

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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)

- Substation Interconnection
- Temporary Substation Staging Area
- Substation Permanent Disturbance Area
- New Distribution Line Segments

Contruction Temporary Disturbance Areas

- Pole Temporary Work Area
- Construction Staging Area
- Temporary Pull Sites
- Temporary Crossing Structure Work Area
- Access Routes
- Helicopter Landing Zones

Existing Infrastructure

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- 230 kV Transmission Line
- 70 kV Power Line

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

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- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
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- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 7 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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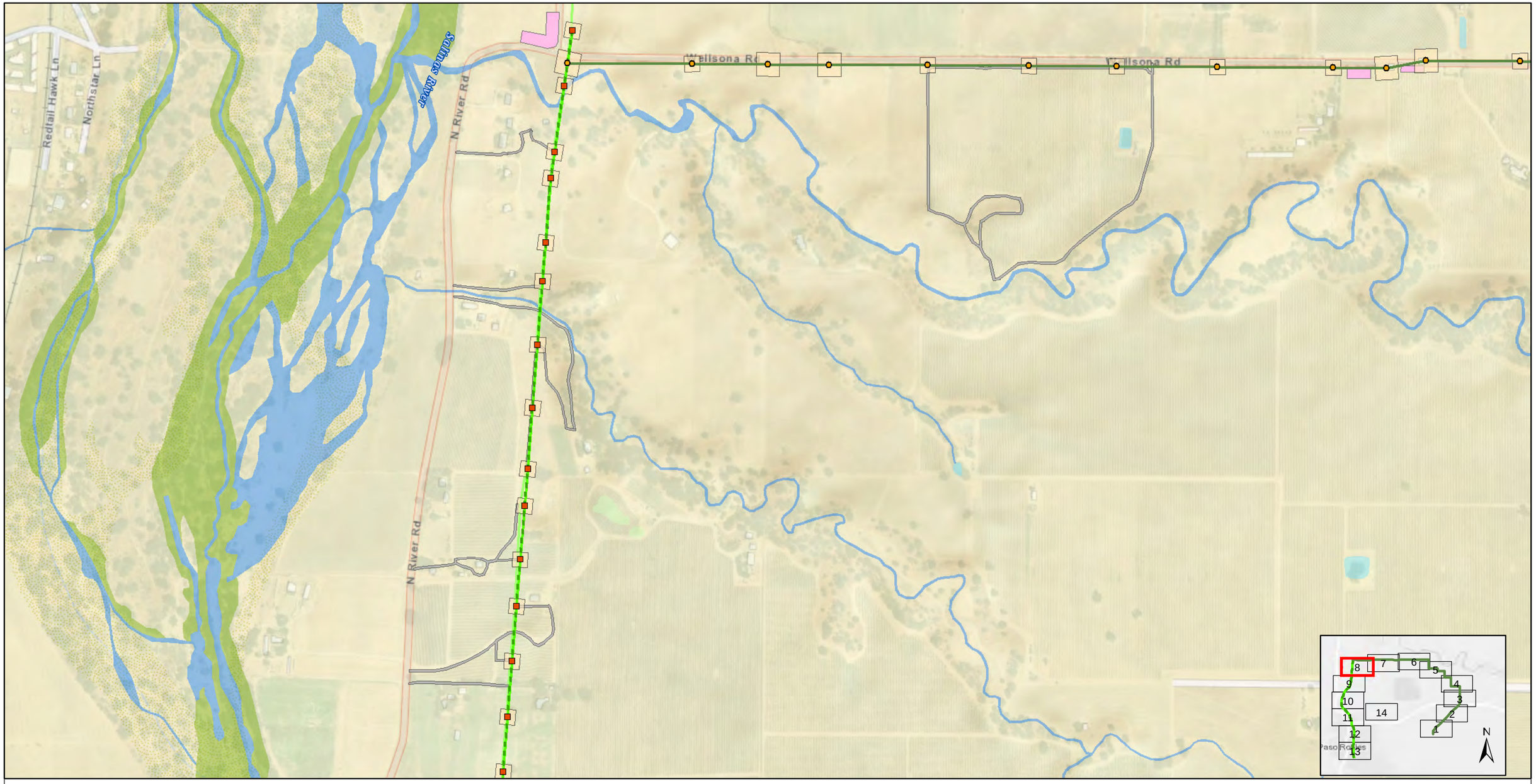

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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)

- Substation Interconnection
- Temporary Substation Staging Area
- Substation Permanent Disturbance Area
- New Distribution Line Segments

Contruction Temporary Disturbance Areas

- Pole Temporary Work Area
- Construction Staging Area
- Temporary Pull Sites
- Temporary Crossing Structure Work Area
- Access Routes
- Helicopter Landing Zones

Existing Infrastructure

- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

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National Wetland Inventory

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- Lake
- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 8 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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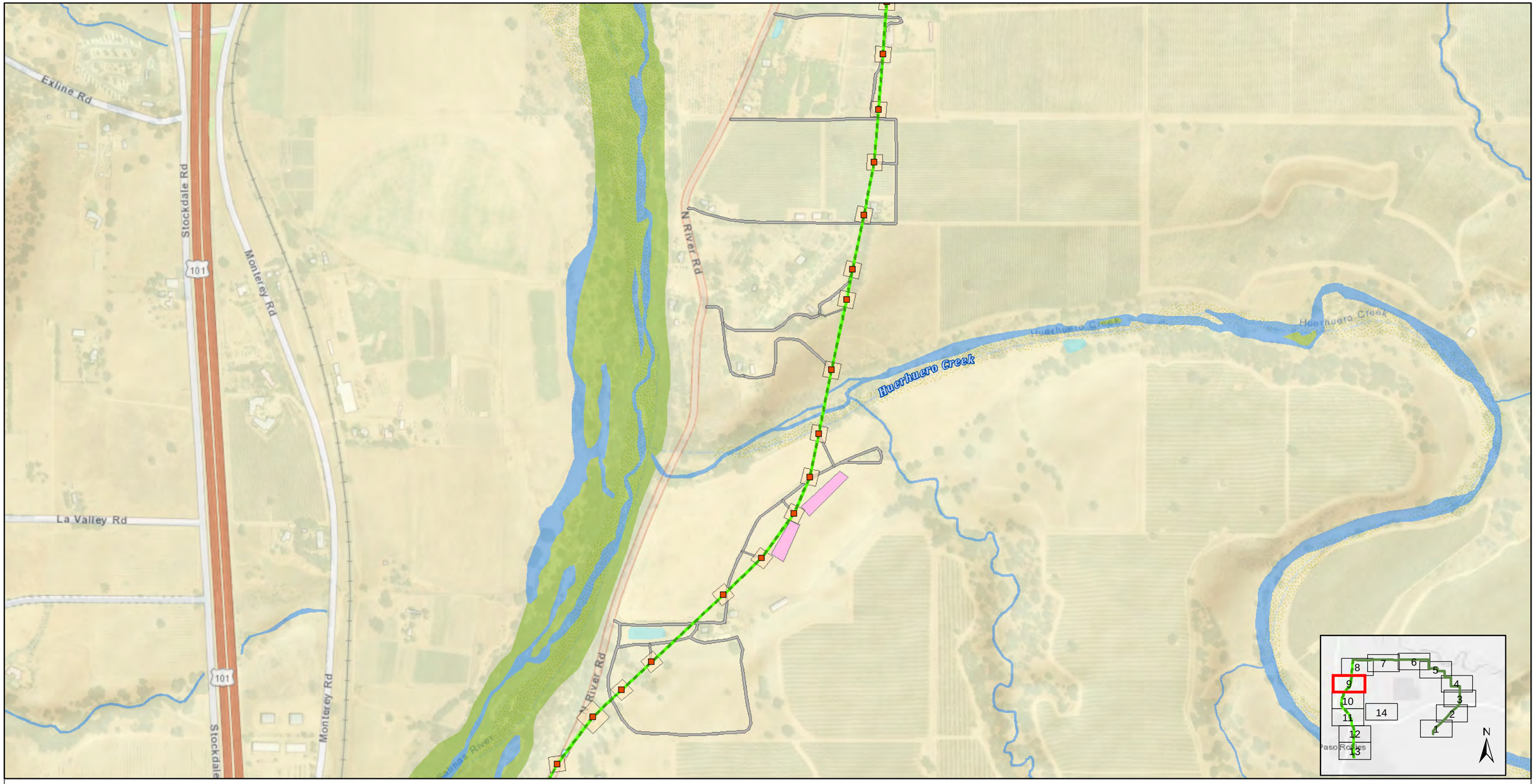

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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)

- Substation Interconnection
- Temporary Substation Staging Area
- Substation Permanent Disturbance Area
- New Distribution Line Segments

Contruction Temporary Disturbance Areas

- Pole Temporary Work Area
- Construction Staging Area
- Temporary Pull Sites
- Temporary Crossing Structure Work Area
- Access Routes
- Helicopter Landing Zones

Existing Infrastructure

- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 9 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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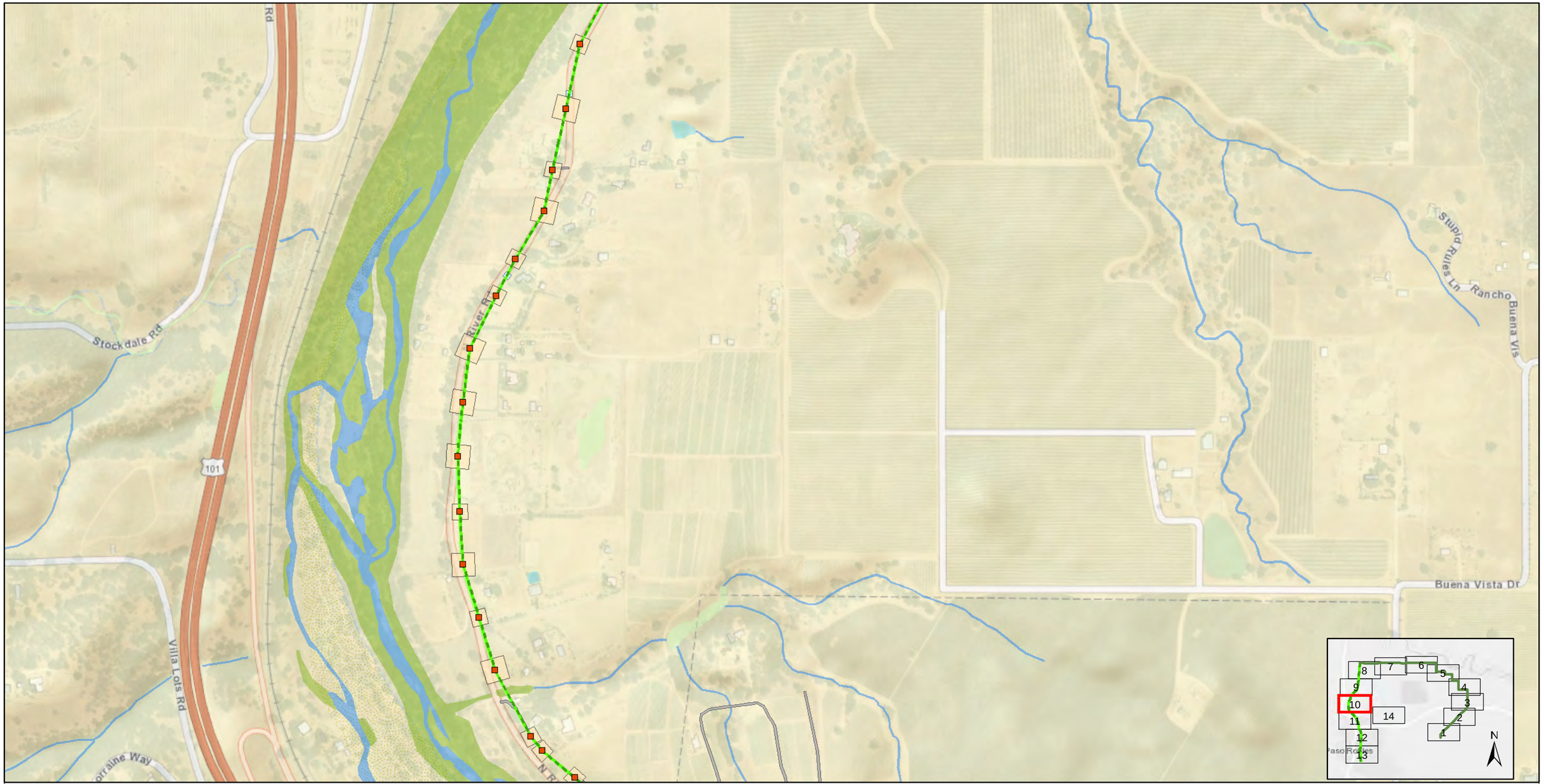

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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)

- Substation Interconnection
- Temporary Substation Staging Area
- Substation Permanent Disturbance Area
- New Distribution Line Segments

Contruction Temporary Disturbance Areas

- Pole Temporary Work Area
- Construction Staging Area
- Temporary Pull Sites
- Temporary Crossing Structure Work Area
- Access Routes
- Helicopter Landing Zones

Existing Infrastructure

- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

National Wetland Inventory

- Estuarine and Marine Deepwater
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- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 10 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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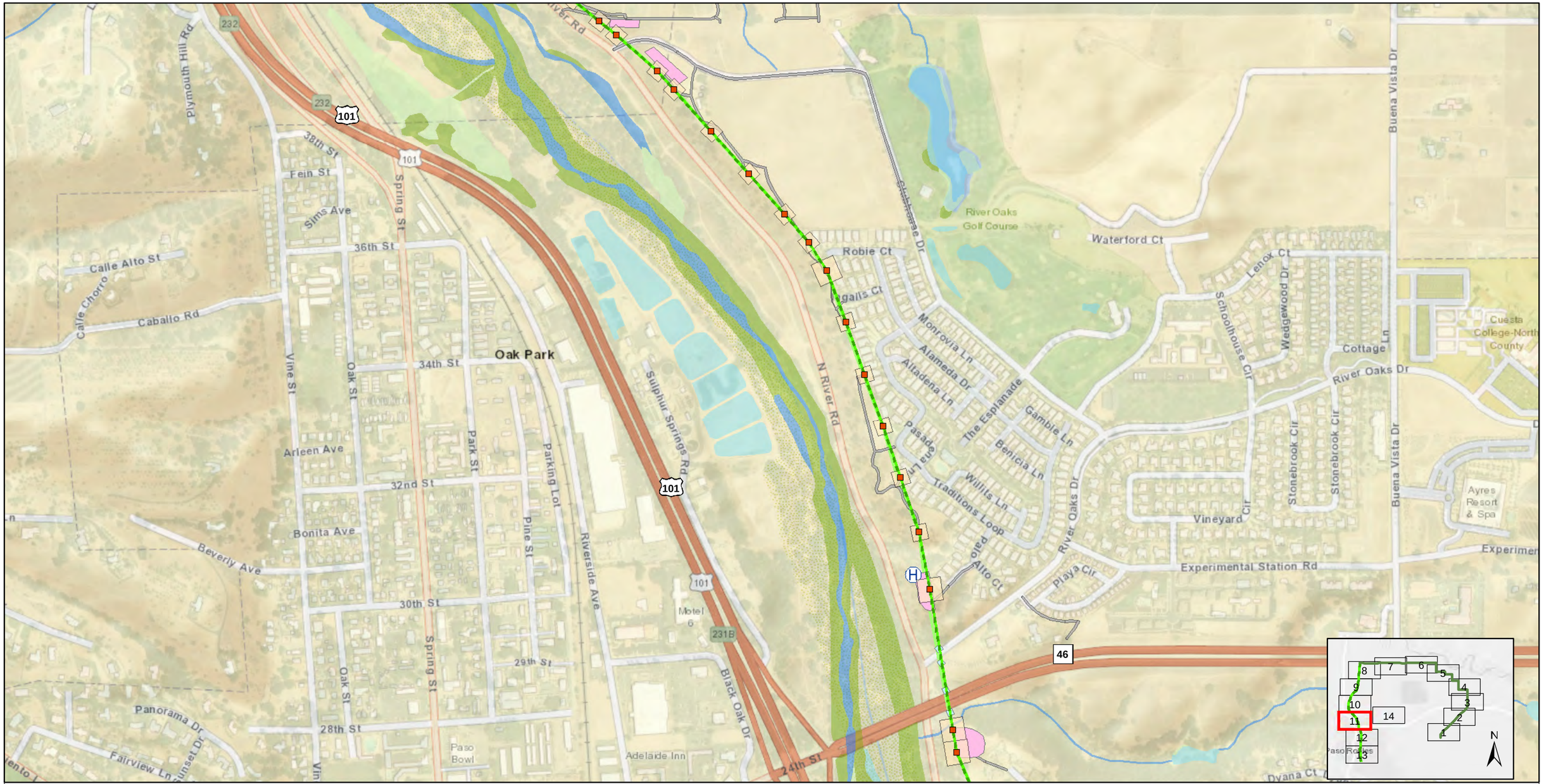

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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)

- Substation Interconnection
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Existing Infrastructure

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- 70 kV Power Line

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- Freshwater Pond
- Lake
- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 11 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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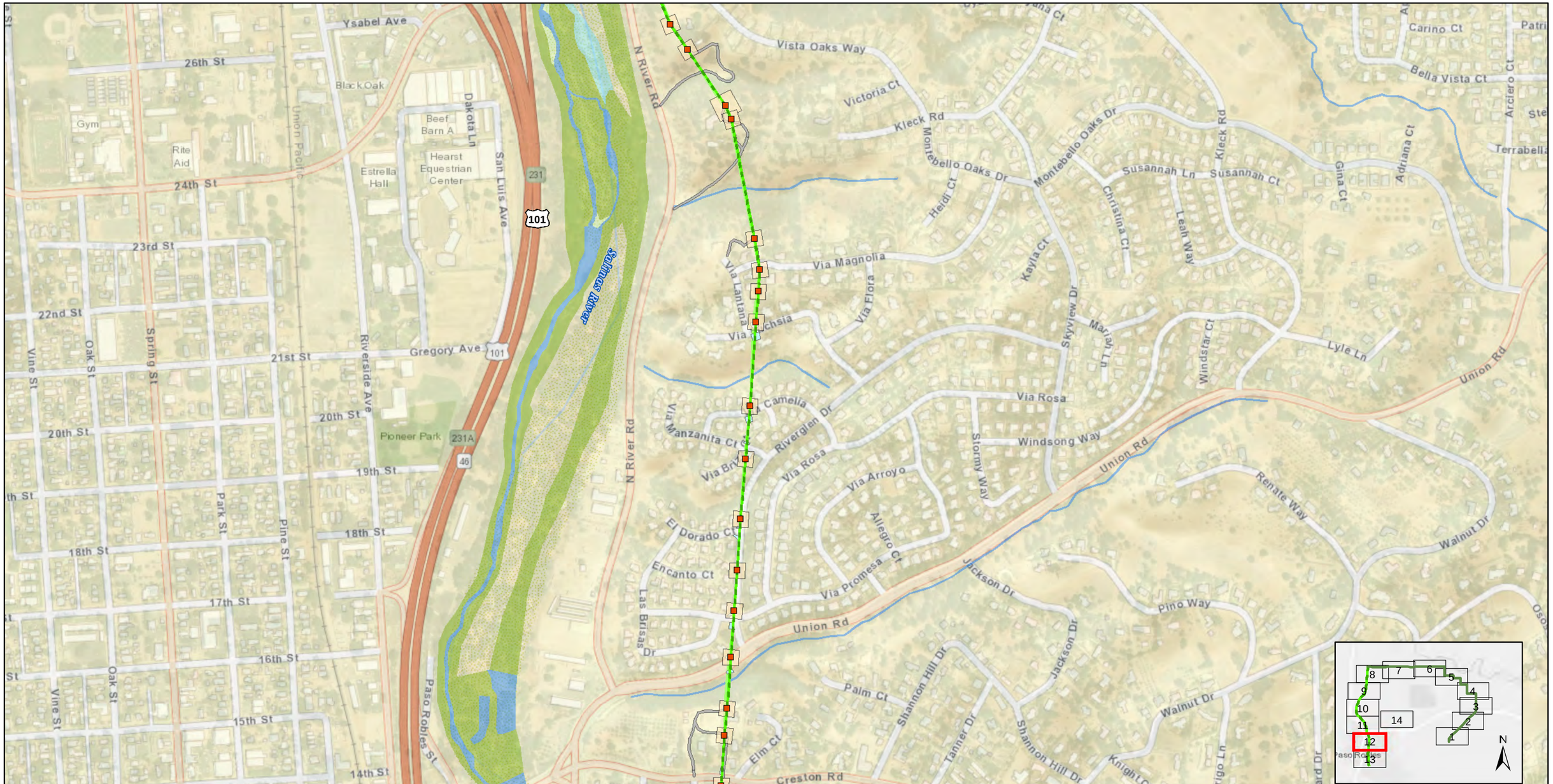

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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)

- Substation Interconnection
- Temporary Substation Staging Area
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Existing Infrastructure

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- 230 kV Transmission Line
- 70 kV Power Line

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- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
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- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 12 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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N

0 125 250 500
Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)

- Substation Interconnection
- Temporary Substation Staging Area
- Substation Permanent Disturbance Area
- New Distribution Line Segments

Contruction Temporary Disturbance Areas

- Pole Temporary Work Area
- Construction Staging Area
- Temporary Pull Sites
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- Access Routes
- Helicopter Landing Zones

Existing Infrastructure

- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

National Wetland Inventory

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
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- Freshwater Pond
- Lake
- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 13 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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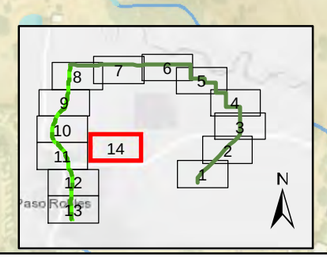
Lake Pl
Paso Robles
Golden Hill Rd
Circle B Rd
Remington Ct
Rafter Way
Paso Robles Horse Park
Huerhuero Creek
Airport Rd
Danley Ct
Wisteria Ln
Germaine Way
Rafter Way
Golden Hill Rd
Tractor St
Jena Ct
Dallons Dr
s Dr



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N

0 125 250 500
Feet

Horizon WATER and ENVIRONMENT

Alternative Components
- New 70kV Power Line Alignment
- Reconductoring Segment
- New 70 kV Poles
- Existing 70kV Pole to be Replaced

Substation Components (Proposed Project)
- Substation Interconnection
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- Riverine

Figure 3-5
Alternative PLR-1A: Estrella Route to Estrella Substation – Detailed View
Sheet 14 of 14

Estrella Substation and Paso Robles Area Reinforcement Project

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Conductors on the new 70 kV power line and the reconductoring segment for Alterative PLR-1A would be supported by a combination of the same types of structures and conductor configuration as the Proposed Project route. Specifically, portions of the alignment along the existing 230/500 kV transmission corridor would use lattice steel towers (LSTs), with average span lengths of 1,100 feet. Each LST would be installed on four individual concrete pier foundations. The remainder of the new 70 kV power line would use either tubular steel poles (TSPs) or light-duty steel poles (LDSPs), with average span lengths of approximately 300 to 500 feet. Refer to Figure 2-17 in Chapter 2, *Project Description,* for diagrams of typical structures for the new 70 kV power line and reconductoring segments.

Construction

Construction methods for Alternative PLR-1A would generally be similar to the Proposed Project 70 kV route. Refer to Chapter 2, *Project Description,* for a detailed description of the steps and processes involved in constructing the new power line and reconductoring segment. Due to the longer length of Alternative PLR-1A compared to the Proposed Project 70 kV route, the construction schedule would be extended, as shown in Table 3-3.

Table 3-3. Alternative PLR-1A: Preliminary Construction Phasing, Tasks, and Schedule / Task Duration

Project Phase	Task	Estimated Work Dates	Duration Longer than Proposed Project?
Reconductoring Segment	Site Work Area Preparation Mobilization	Month 1	No
	Pole Installation / Transfer / Distribution / Removal	Month 2-13	Yes
	Conductor Installation	Month 3-14	Yes
	Cleanup and Restoration	Month 15	Yes
New 70 kV Power Line Segment	Site Work Area Preparation Mobilization	Month 15	Yes
	Pole Installation / Transfer / Distribution	Month 16-30	Yes
	Conductor Installation	Month 30-33	Yes
	Cleanup and Restoration	Month 34	Yes

In total, construction of the reconductoring and new 70 kV power line segments for Alternative PLR-1A would take 16 months longer than the Proposed Project's 18-month schedule for construction of the proposed power line. The types of equipment to be used in each phase of construction for Alternative PLR-1A and hours per day that equipment would be used during construction would be the same as for the Proposed Project (refer to Table 2-9 in Chapter 2, *Project Description,* and Appendix J of the Applicants' PEA for information).

Staging areas and other temporary disturbance areas (e.g., pole work areas, crossing structure work areas, pull sites, access roads, and helicopter landing zones) required for construction of Alternative PLR-1A are shown in Figure 3-5 and summarized in Table 3-4. Alternative PLR-1A would use the same main staging area in Golden Hill Industrial Park as the Proposed Project.

Table 3-4. Alternative PLR-1A: Temporary Disturbance Areas

Temporary Work Area	Anticipated Site Preparation	Total Approximate Area (Acres)
Staging Areas	Vegetation removal may be required, temporary fencing and gates would be installed, gravel would be installed, and temporary power would be supplied by a distribution tap or generator.	35.24
Pole Work Areas[1]	Vegetation removal and minor grading may be required.	58.68
Crossing Structure Work Areas	Vegetation removal may be required.	1.25
Pull and Tension Sites	Vegetation removal may be required.	10.78
Landing Zones	Sites would be leveled free of obstacles and debris.	1.37
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.	56.21

Notes:

1. Includes TSPs, LDSPs, and existing and new distribution poles.

Parking areas for construction workers would be located at the staging areas and/or temporary work areas. The estimated number of construction vehicle trips and frequency of the trips associated with construction of Alternative PLR-1A are shown in Table 3-5.

Table 3-5. Alternative PLR-1A: Estimated Daily Worker and Truck Trips During Construction

Construction Phase / Task	Daily Worker Round-Trips	Daily Truck Round-Trips	Number of Days	Greater / More than Proposed Project?	Maximum # of Daily Round-Trips
Reconductoring Segmentt					
Site Development	6	5	24	No	11
Pole Installation / Transfer / Distribution / Removal	9	7	172	Yes	16
Conductor Installation	9	5	152	Yes	14
Clean-up and Site Restoration	6	3	6	No	9
New 70 kV Power Line Segment					
Site Preparation / Mobilization	6	5	6	No	11
Pole / Tower Installation	9	6-8	348	Yes	17
Conductor Installation	9	5	84	Yes	14
Clean-up and Site Restoration	6	4	24	No	10

Approximately 92 vehicle trips would be necessary for vegetation trimming/removal during construction of Alternative PLR-1A. Construction of portions of Alternative PLR-1A that cross over County roadways (see locations of crossing structures on Figure 3-5) would require lane closures and/or road closures, which would be up to 5 to 10 minutes at a time, similar to the Proposed Project.

The amount of water that would be required to construct Alternative PLR-1A is expected to be approximately 2.8 million gallons. Short-term irrigation water would not be needed for revegetation efforts at any temporary disturbance areas. Sources of water are anticipated to be the same as for the Proposed Project.

Operation and Maintenance

Operation and maintenance of Alternative PLR-1A would be similar to that of the Proposed Project 70 kV power line. Refer to Chapter 2, *Project Description,* for detailed description of anticipated operations and maintenance activities. Vehicles accessing the power line during operation and maintenance activities would use the following public roads:

- Wellsona Road
- Dry Creek Road

- Jardine Road
- Tower Road
- Calabaza Way
- Wilderness Lane
- Airport Road
- Estrella Road
- Branch Road
- Union Road
- Mill Road
- Sherry Place

The estimated number of vehicle trips and frequency of the trips necessary for operation and maintenance of Alternative PLR-1A would generally be the same as for the Proposed Project. It is anticipated that one vehicle trip per year would be needed for vegetation management activities for Alternative PLR-1A.

3.3.3 Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Description

Alternative PLR-1C is the 70 kV power line route that would be used to connect a substation at the Bonel Ranch Substation Site (Alternative SS-1) to the Paso Robles Substation. This route would be largely similar to Alternative PLR-1A, but would have a different starting point at the Bonel Ranch site rather than the proposed Estrella Substation. Starting at the Bonel Ranch Substation Site, the Alternative PLR-1C route would follow Estrella Road west before meeting the existing 230/500 kV transmission corridor. The route would then turn and follow the existing 230/500 kV transmission corridor southwest for approximately 0.75-mile before veering west, crossing a riparian/drainage area, and then joining the Alternative PLR-1A route that zig zags northwest through agricultural lands until meeting Wellsona Road. The remainder of the route is identical to Alternative PLR-1A.

Two minor route variations are considered for Alternative PLR-1C:

- ***Alternative PLR-1C, Minor Route Variation 1.*** Starting at the Bonel Ranch Substation Site, this minor route variation would route the 70 kV line along Estrella Road west until turning south down Jardine Road and then joining the Alternative PLR-1C route that cuts west toward Wellsona Road.

- ***Alternative PLR-1C, Minor Route Variation 2.*** This minor route variation would start at the zig zag northwest to Wellsona Road and would instead go to the north and follow a portion of the existing distribution line just south of Estrella Road before turning south down Jardine Road and then re-joining the Alternative PLR-1C route.

Land uses surrounding the Alternative PLR-1C route primarily consist of urban and rural residential developments and agricultural areas dominated by vineyards. Table 3-6 shows the length of the Alternative PLR-1C components.

Table 3-6. Alternative PLR-1C: Length of Power Line Components

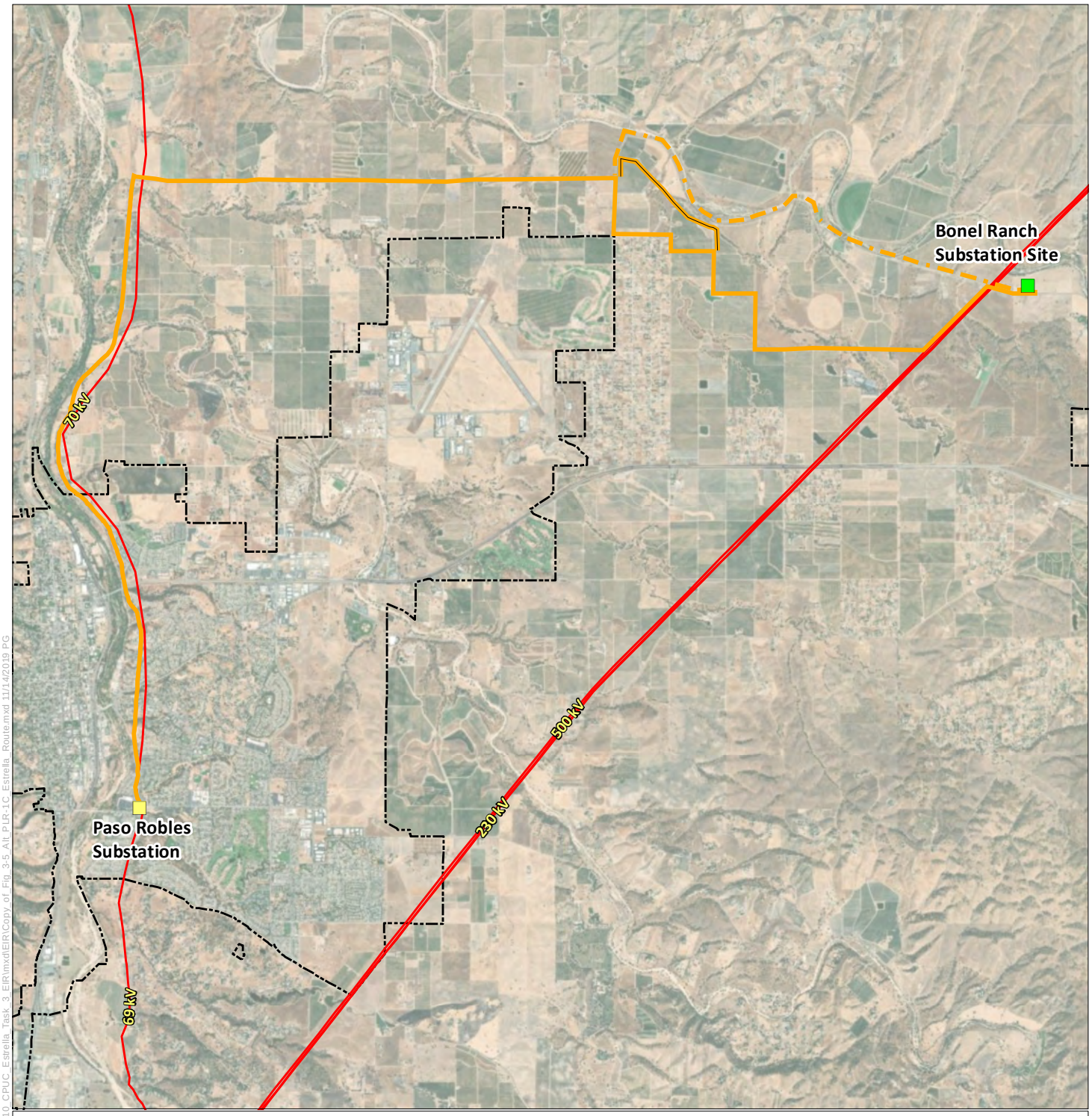
Component	Length of Improvements / New Construction (miles)		
	PLR-1C	PLR-1C w/ MRV #1	PLR-1C w/ MRV #2
New Double-Circuit 70 kV Power Line	10	9	9.5
Reconductoring of Existing 70 kV San Miguel-Paso Robles Power Line	6	6	6
Total	**16**	**15**	**15.5**

Notes: kV = kilovolt

Conductors on the new 70 kV power line and the reconductoring segment for Alternative PLR-1C would be supported by a combination of the same types of structures and conductor configuration as the Proposed Project route and Alternative PLR-1A. Specifically, portions of the alignment along the existing 230/500 kV transmission corridor would use LSTs, with average span lengths of 1,100 feet. Each LST would be installed on four individual concrete pier foundations. The remainder of the new 70 kV power line would use either TSPs or LDSPs, with average span lengths of approximately 300 to 500 feet. Refer to Figure 2-17 in Chapter 2, *Project Description,* for diagrams of typical structures for the new 70 kV power line and reconductoring segments.

Alternative PLR-1C Minor Route Variation 1 would be constructed on the southerly side of Estrella Road (away from Estrella River), and due to the narrow width of Estrella Road in this section, the double-circuit power line would be placed on private property adjacent to the roadway (about 2 to 4 feet on private property). Alternative PLR-1C Minor Route Variation 1 may also require use of a greater number of TSPs, due to the large number of angles along this route. Installing a TSP is a more labor- and time-intensive process than installing an LDSP, as foundations need to be drilled, framed, and poured, with a 30-day cure time, before TSPs can be set. Being close to the Estrella River, the soil may be especially sandy, which could make constructing concrete foundations for these TSPs extremely difficult.

Going from south to north, the first part of Alternative PLR-1C Minor Route Variation 2 (from where it leaves the main Alternative PLR-1C route) would continue along an existing dirt farm road until it intersects with the existing distribution line that runs diagonally from southeast to northwest (refer to Figure 3-6). Following the existing distribution line from that point, power line structures would need to be placed in the middle of several existing vineyards. At each structure location, a row of grapes would need to be removed for access. Vineyard properties along this section also may be severed with a new typically 70-foot-wide transmission easement, which would limit the available use of those properties and diminish their value and usefulness in the future. Once Alternative PLR-1C Minor Route Variation 2 intersects with Jardine Road, power line structures would be placed in an existing dirt farm road heading south on the easterly side of Jardine Road until it rejoins the main Alternative PLR-1C route.



Basebap Sources: Source: Esri, DigitalGlobe, GeoEye,

Alternative

- Alternative SS-1: Bonel Ranch Substation Site
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2

Existing Infrastructure

- Existing Substations
- Transmission Line
- Paso Robles City Limits

N

0 1
Miles

Source: Source: NEET West and PG&E 2017

Figure 3-6
Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Note: The route variations shown are offset in order to display the alignments of the alternative routes.

Estrella Substation and Paso Robles Area Reinforcement Project

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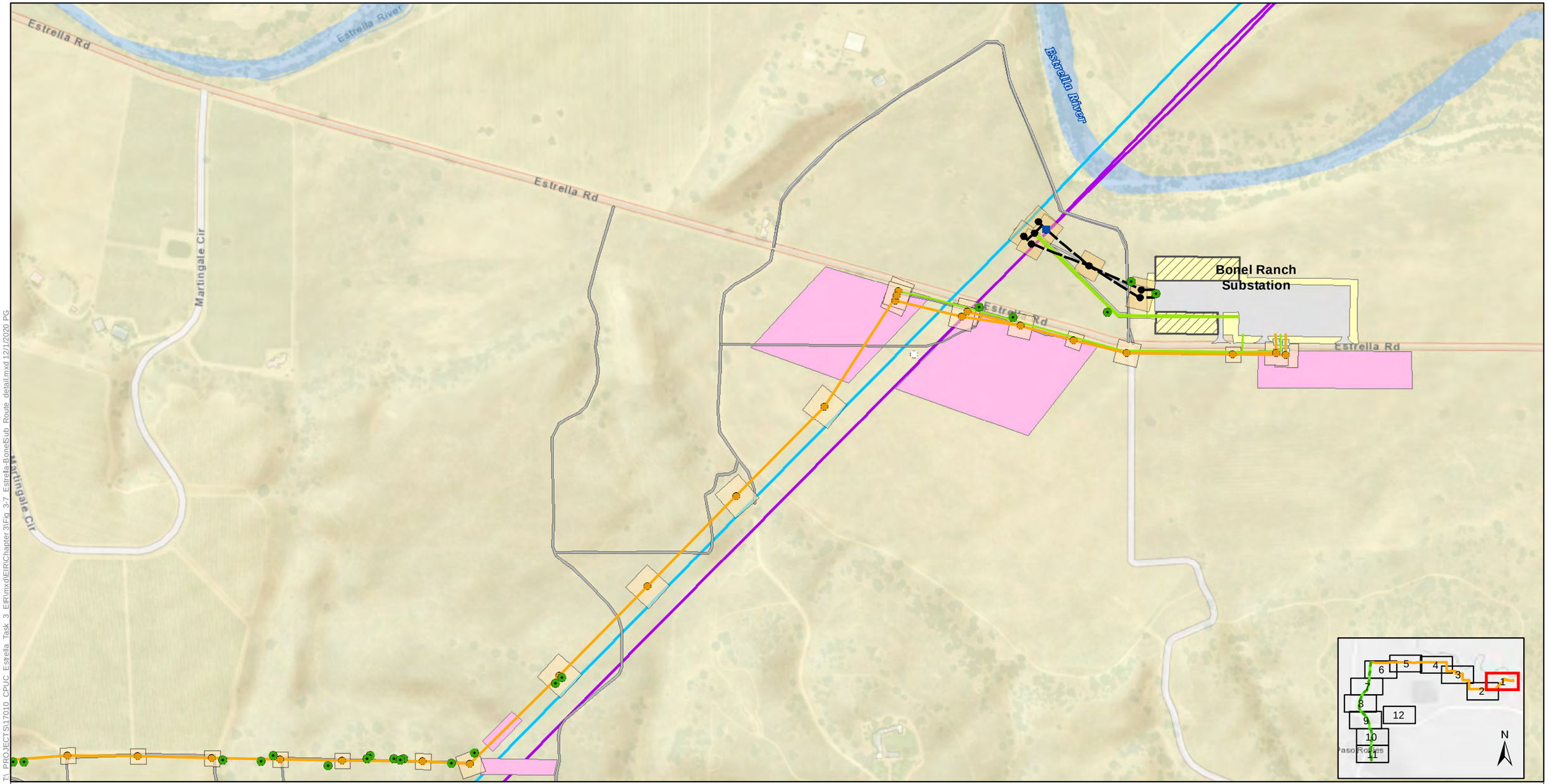

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Source: NEET West, PG&E 2017, NWI 2020.

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- 70kV Poles
- Existing 70kV Pole to be Replaced
- Oak Tree Trimming/Removal

Substation Components (Bonel Ranch)

- Existing 230 kV Pole to be Removed
- New 230kV Structures
- 230kV Interconnection
- Telecommunications Line
- Substation Permanent Disturbance Area

Contruction Temporary Disturbance Areas

- Construction Staging
- Temporary Crossing Structure Work Area
- Pole Temporary Work
- Access Routes
- Temporary Pull Sites
- Substation Temporary Disturbance Area

Existing Infrastructure

- 230 kV Tower
- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Figure 3-7

Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

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Estrella Substation and Paso Robles Area Reinforcement Project

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Source: NEET West, PG&E 2017, NWI 2020.

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- 70kV Poles
- Existing 70kV Pole to be Replaced
- Oak Tree Trimming/Removal

Substation Components (Bonel Ranch)

- Existing 230 kV Pole to be Removed
- New 230kV Structures
- 230kV Interconnection
- Telecommunications Line
- Substation Permanent Disturbance Area

Contruction Temporary Disturbance Areas

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- Pole Temporary Work
- Access Routes
- Temporary Pull Sites
- Substation Temporary Disturbance Area

Existing Infrastructure

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- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Figure 3-7

Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

Sheet 2 of 12

Estrella Substation and Paso Robles Area Reinforcement Project

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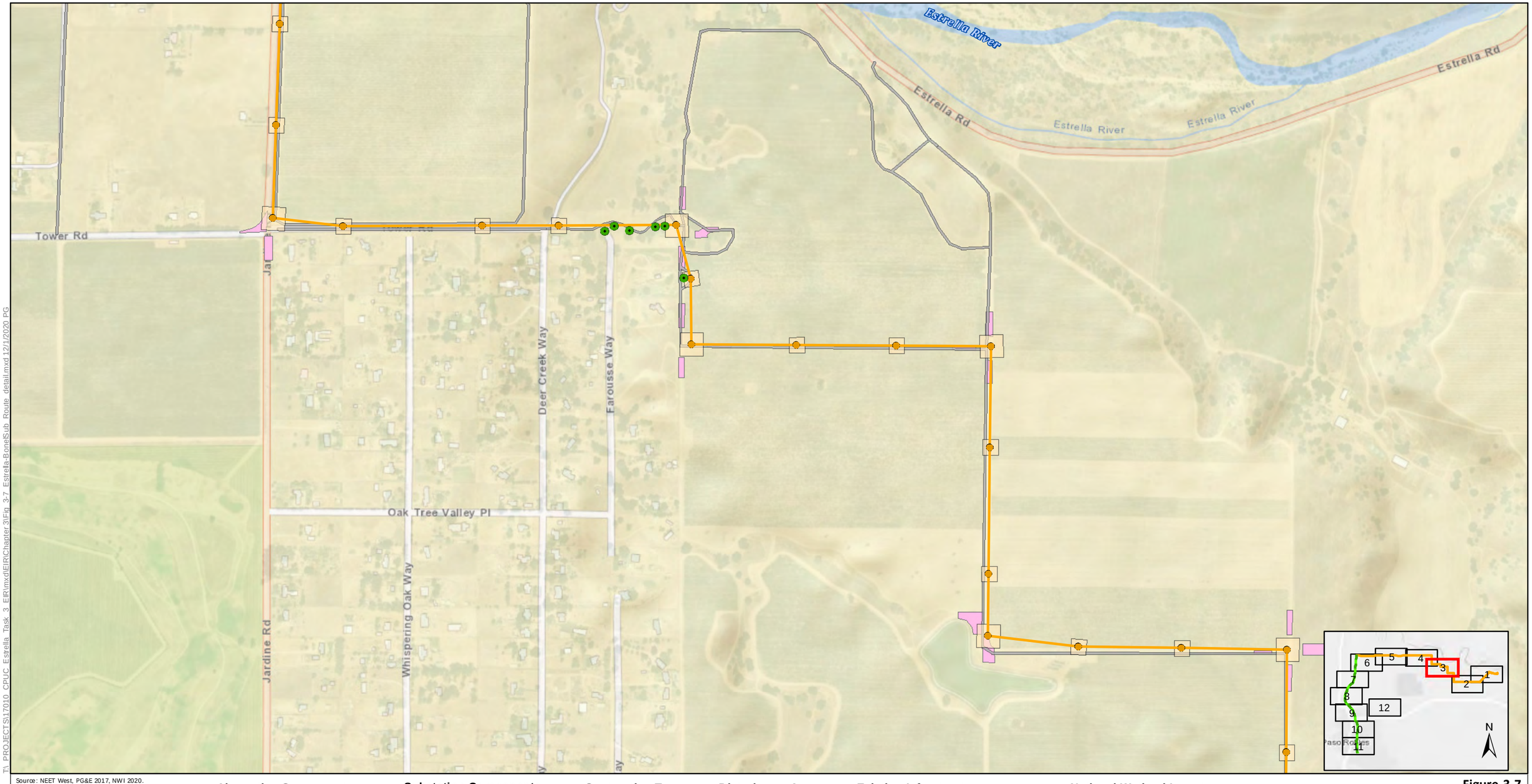

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Source: NEET West, PG&E 2017, NWI 2020.

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- 70kV Poles
- Existing 70kV Pole to be Replaced
- Oak Tree Trimming/Removal

Substation Components (Bonel Ranch)

- Existing 230 kV Pole to be Removed
- New 230kV Structures
- 230kV Interconnection
- Telecommunications Line
- Substation Permanent Disturbance Area

Contruction Temporary Disturbance Areas

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- Pole Temporary Work
- Access Routes
- Temporary Pull Sites
- Substation Temporary Disturbance Area

Existing Infrastructure

- 230 kV Tower
- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory

Figure 3-7

Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

Sheet 3 of 12

Estrella Substation and Paso Robles Area Reinforcement Project

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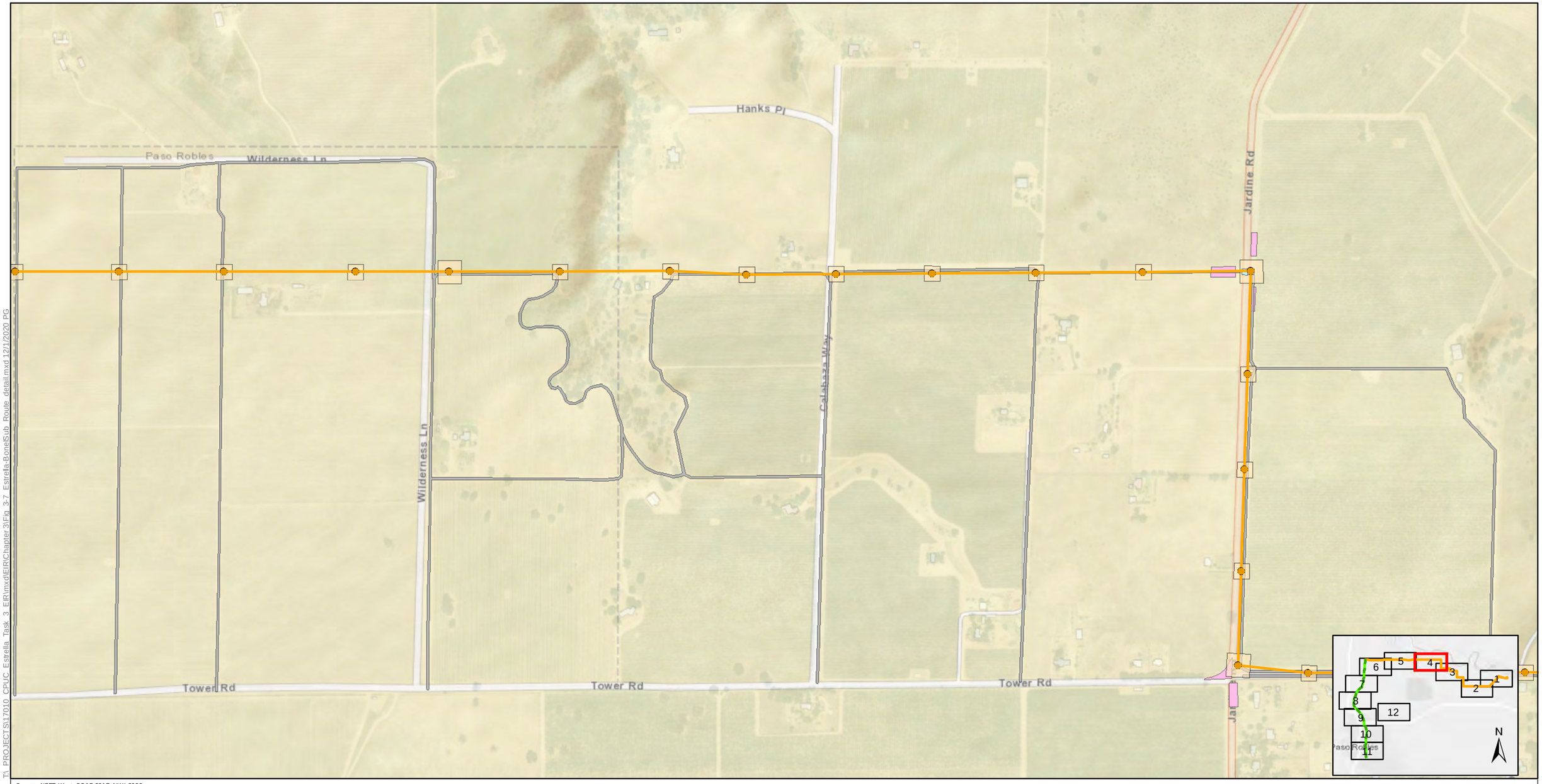

Source: NEET West, PG&E 2017, NWI 2020.

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- 70kV Poles
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- Oak Tree Trimming/Removal

Substation Components (Bonel Ranch)

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Contruction Temporary Disturbance Areas

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- Pole Temporary Work
- Access Routes
- Temporary Pull Sites
- Substation Temporary Disturbance Area

Existing Infrastructure

- 230 kV Tower
- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory

- Riverine

Figure 3-7

Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

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Estrella Substation and Paso Robles Area Reinforcement Project

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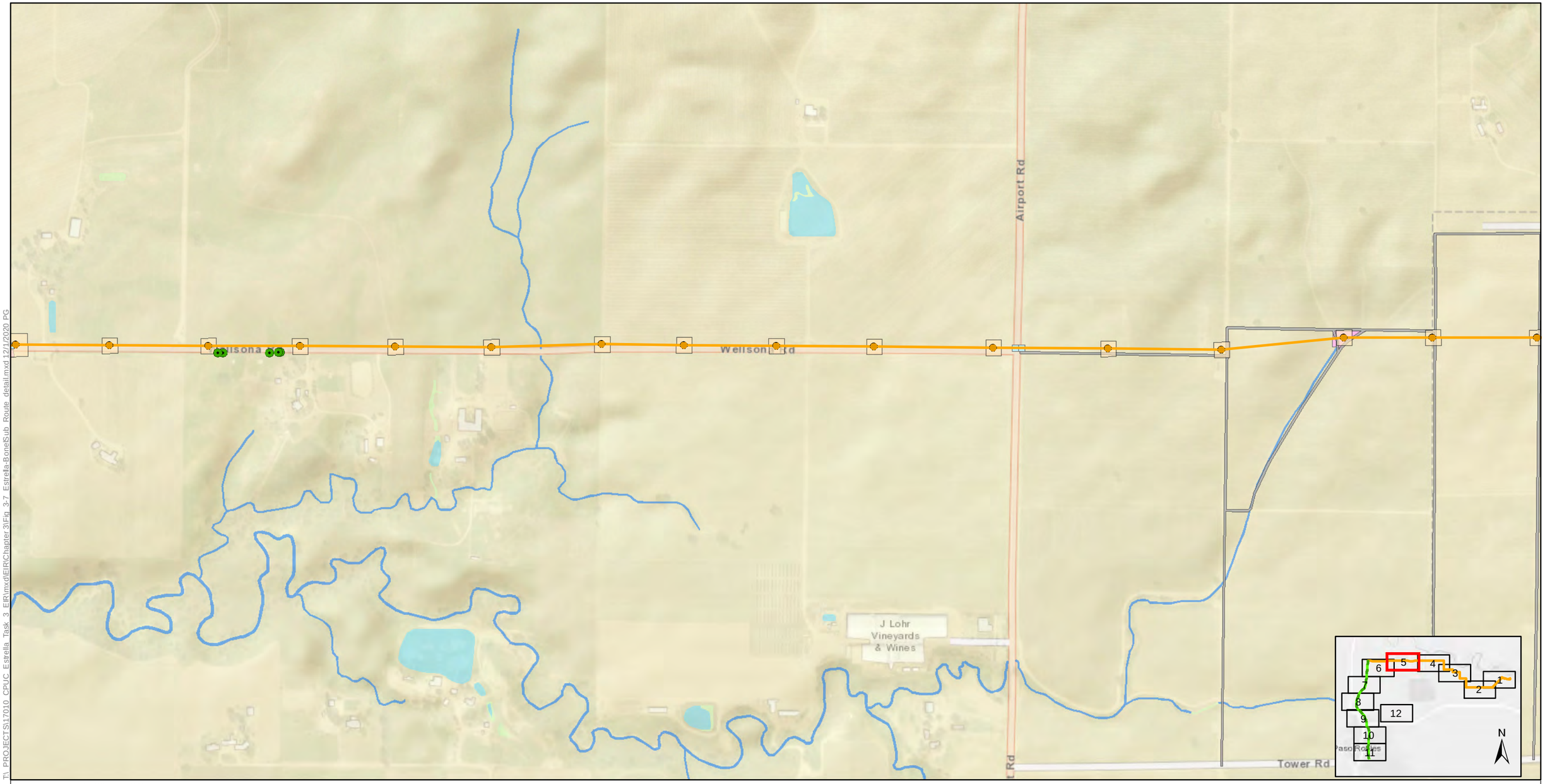

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Source: NEET West, PG&E 2017, NWI 2020.

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- 70kV Poles
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- Oak Tree Trimming/Removal

Substation Components (Bonel Ranch)

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Contruction Temporary Disturbance Areas

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Existing Infrastructure

- 230 kV Tower
- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Figure 3-7

Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

Sheet 5 of 12

Estrella Substation and Paso Robles Area Reinforcement Project

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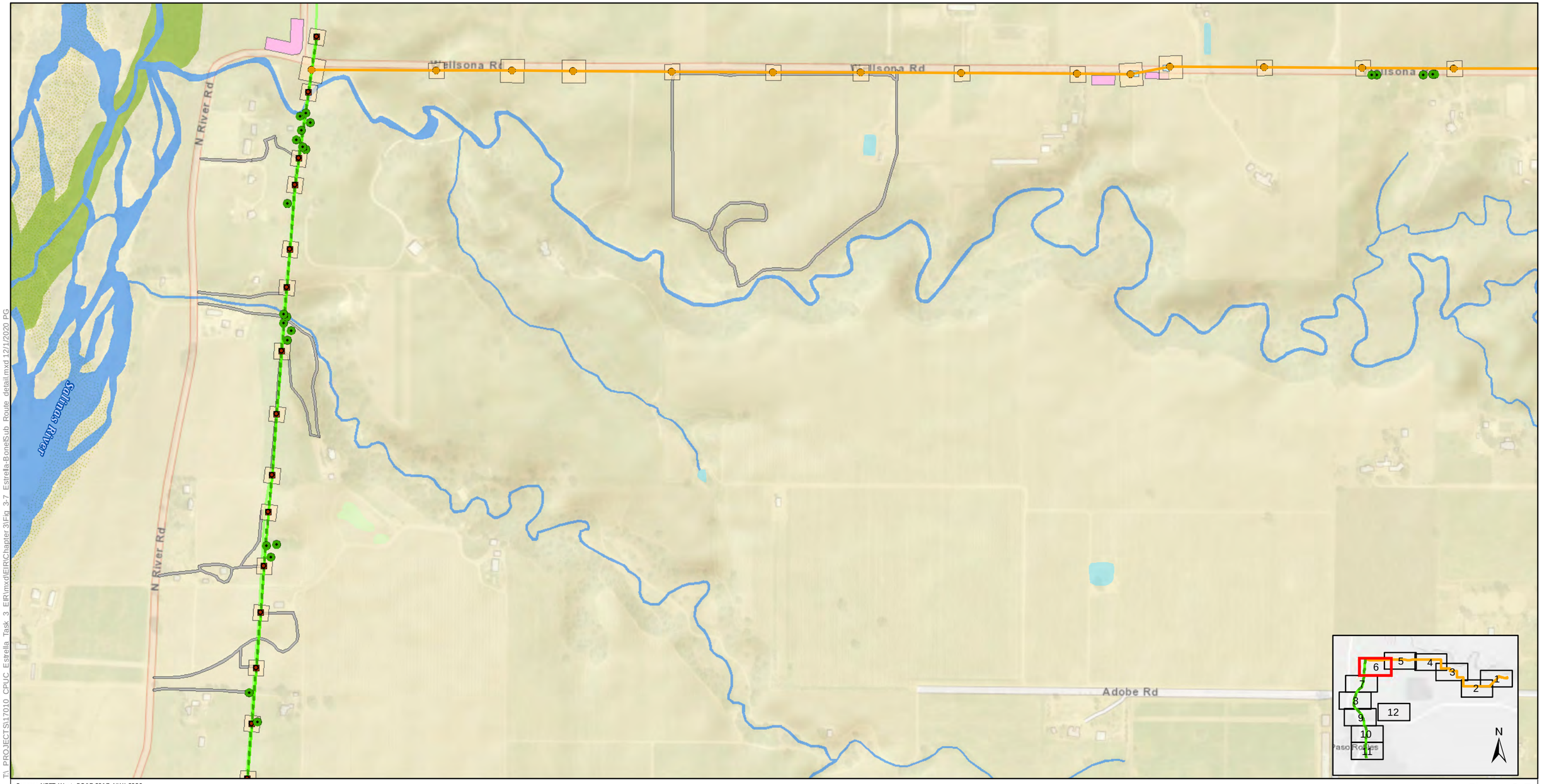

Source: NEET West, PG&E 2017, NWI 2020.

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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- 70kV Poles
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- Oak Tree Trimming/Removal

Substation Components (Bonel Ranch)

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Contruction Temporary Disturbance Areas

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Existing Infrastructure

- 230 kV Tower
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- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 3-7

Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

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Estrella Substation and Paso Robles Area Reinforcement Project

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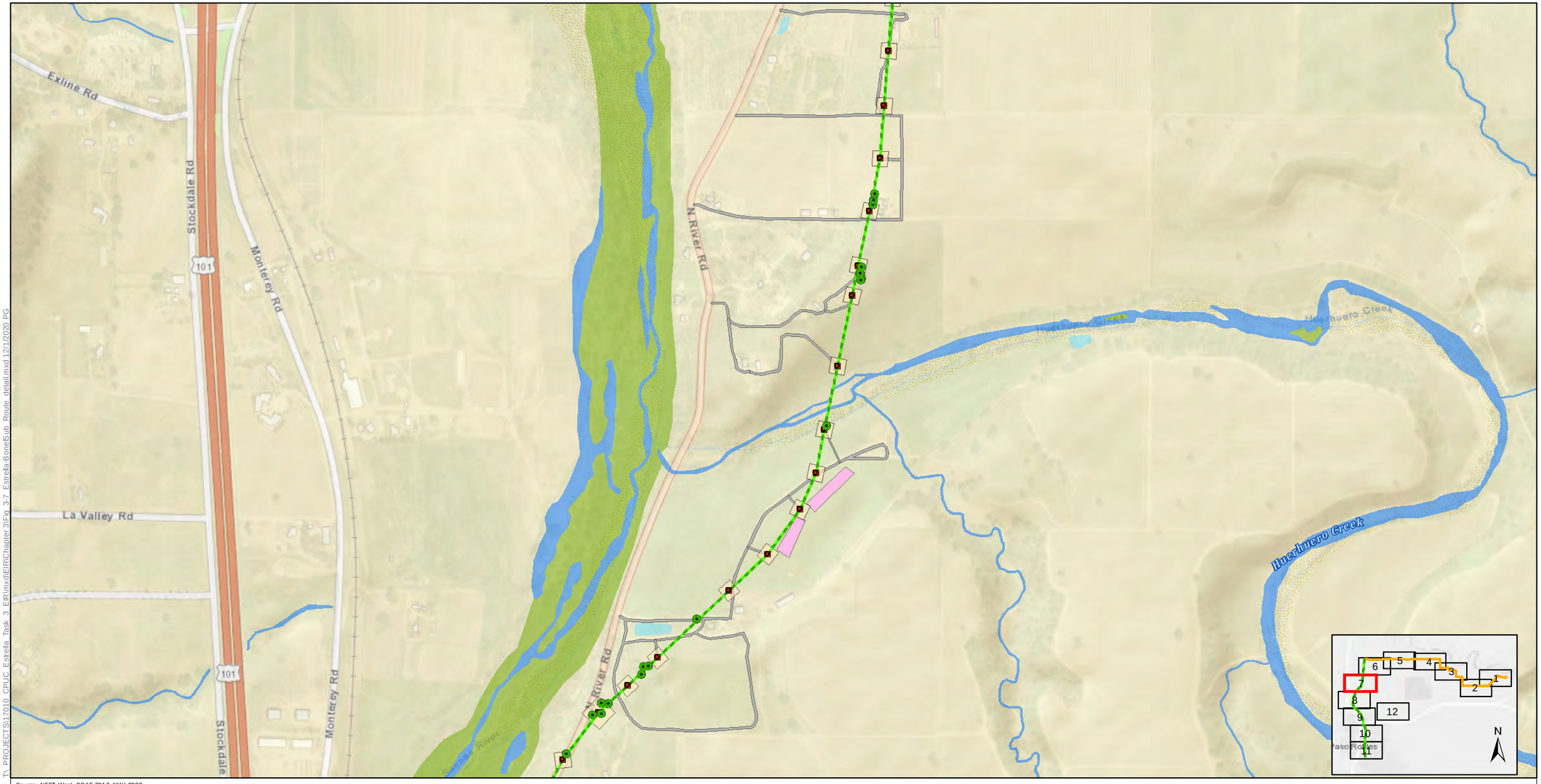

Source: NEET West, PG&E 2017, NWI 2020.

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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- 70kV Poles
- Existing 70kV Pole to be Replaced
- Oak Tree Trimming/Removal

Substation Components (Bonel Ranch)

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Existing Infrastructure

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- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 3-7

Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

Sheet 7 of 12

Estrella Substation and Paso Robles Area Reinforcement Project

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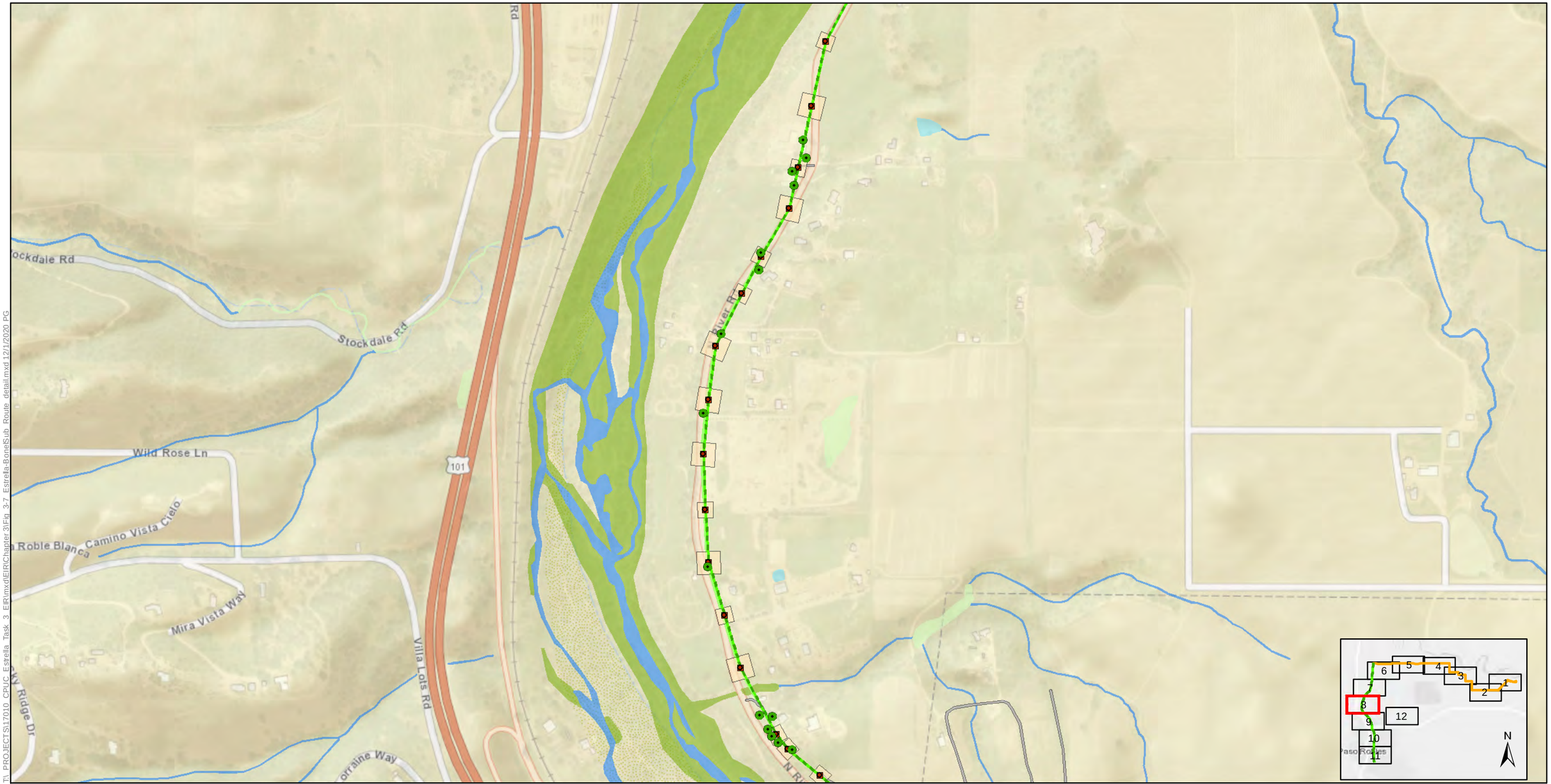

Source: NEET West, PG&E 2017, NWI 2020.

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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

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Existing Infrastructure

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- 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 3-7

Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

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Estrella Substation and Paso Robles Area Reinforcement Project

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Source: NEET West, PG&E 2017, NWI 2020.

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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
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Existing Infrastructure

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- 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 3-7
Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

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Estrella Substation and Paso Robles Area Reinforcement Project

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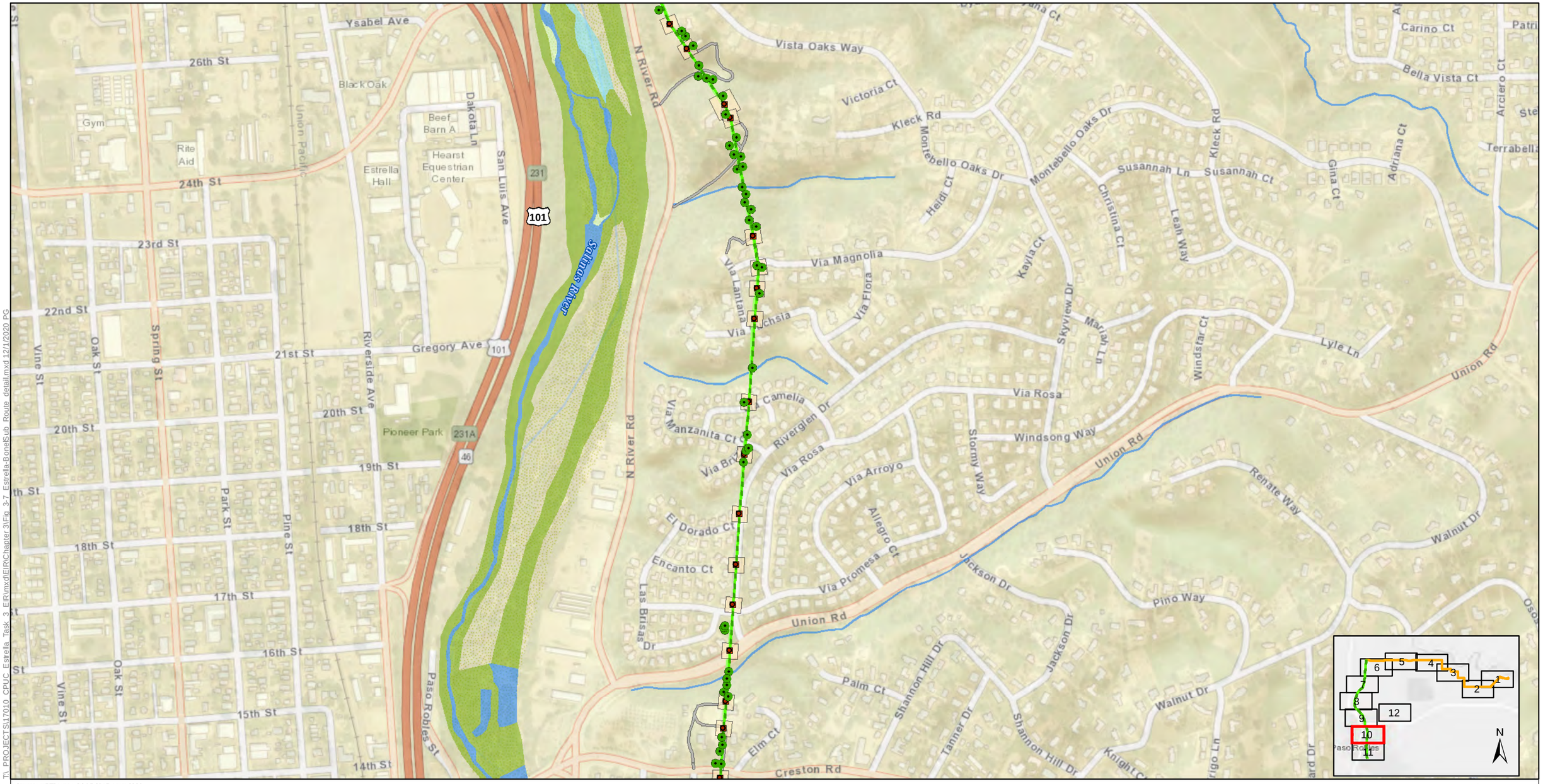

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Source: NEET West, PG&E 2017, NWI 2020.

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Feet

Horizon WATER and ENVIRONMENT

Alternative Components

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Existing Infrastructure

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- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 3-7
Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

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Estrella Substation and Paso Robles Area Reinforcement Project

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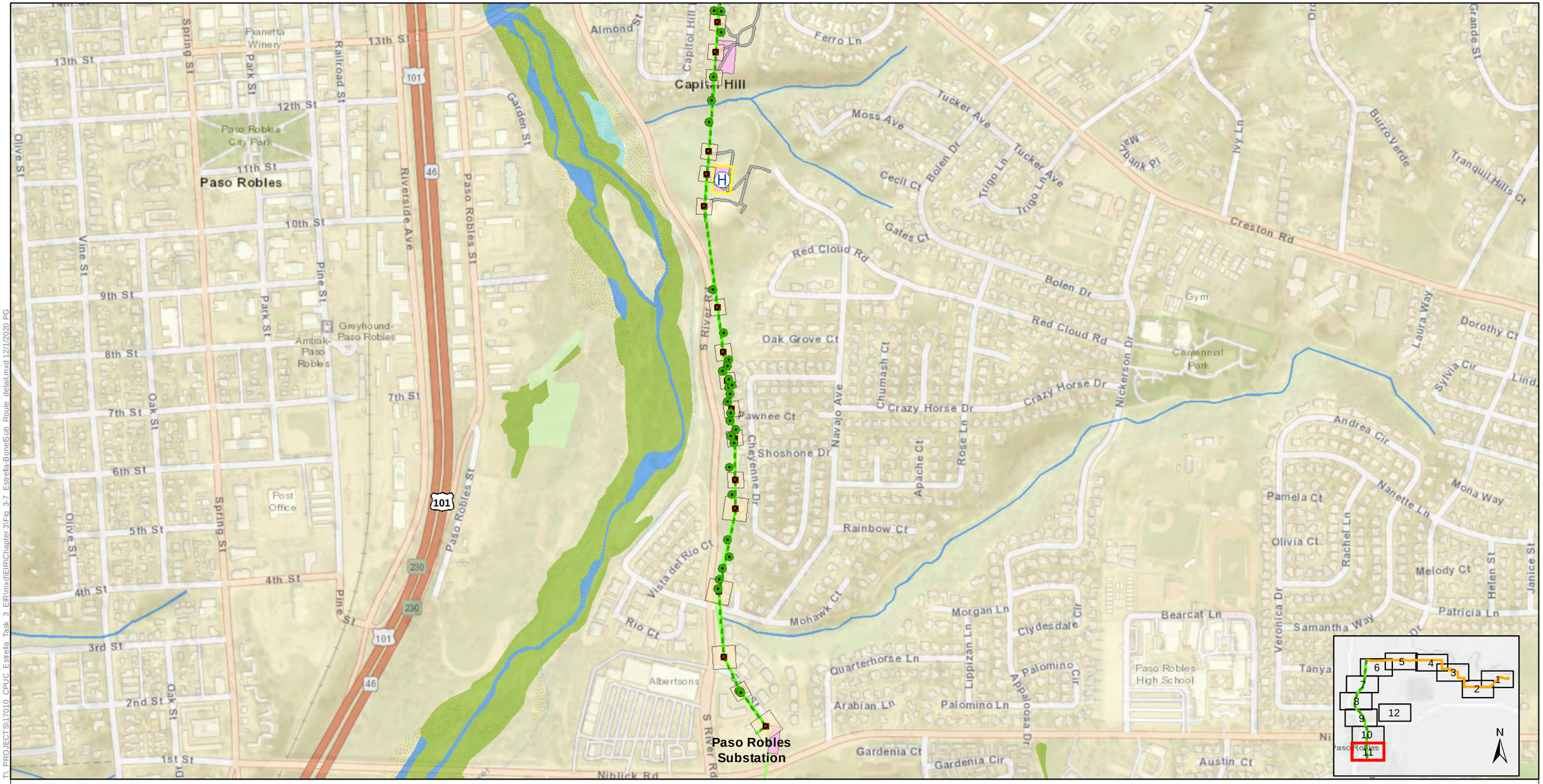

Source: NEET West, PG&E 2017, NWI 2020.

0 125 250 500
Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- 70kV Poles
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- Oak Tree Trimming/Removal

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National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 3-7
Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

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Estrella Substation and Paso Robles Area Reinforcement Project

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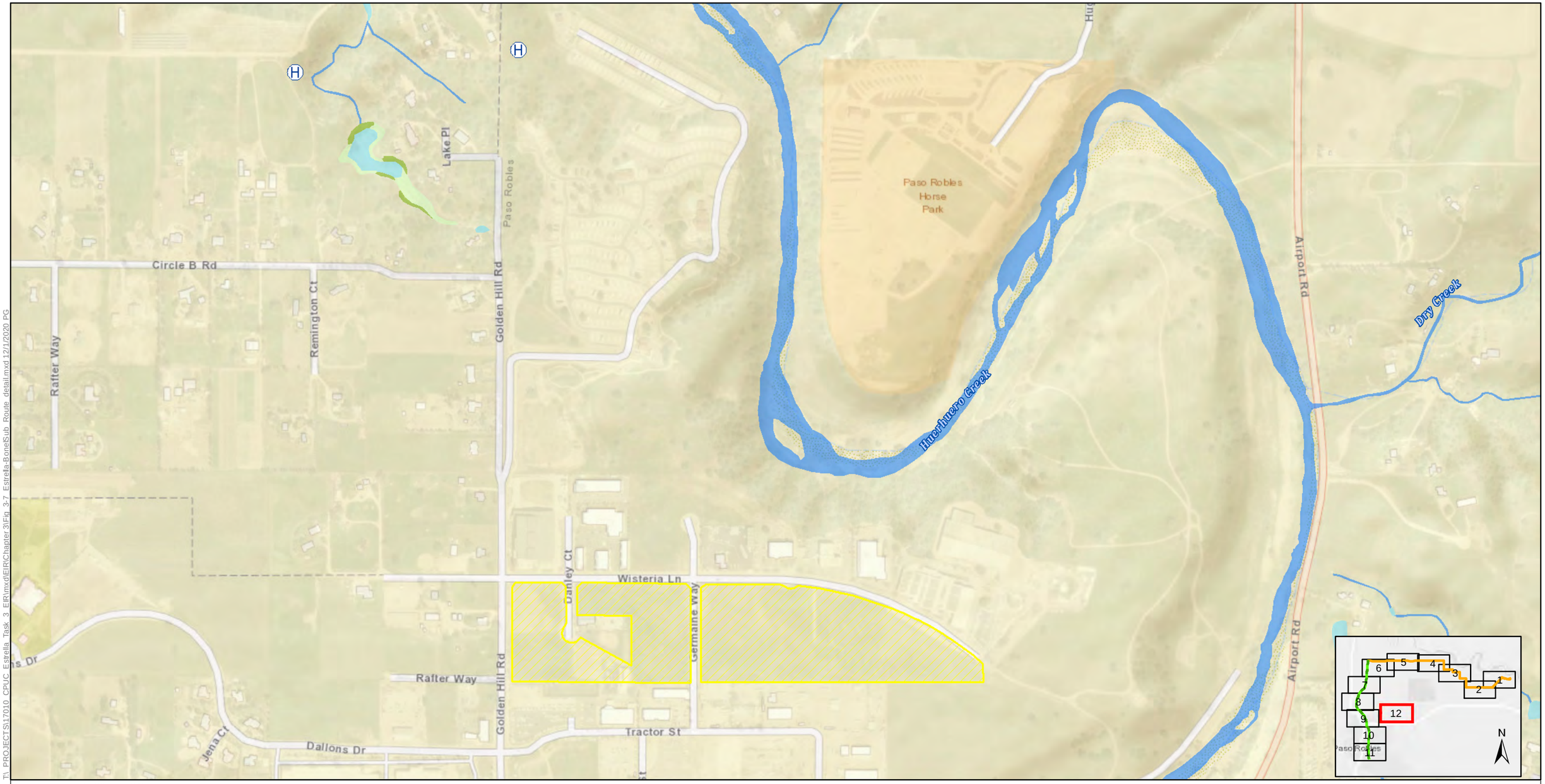

Source: NEET West, PG&E 2017, NWI 2020.

N

0 125 250 500
Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- Reconductoring Segment
- 70kV Poles
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Substation Components (Bonel Ranch)

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Existing Infrastructure

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- 230 kV Transmission Line
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National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 3-7
Alternative PLR-1C: Estrella to Bonel Ranch Substation Route – Detailed View

Sheet 12 of 12

Estrella Substation and Paso Robles Area Reinforcement Project

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Construction

Construction methods/activities for Alternative PLR-1C would generally be similar to the Proposed Project 70 kV route. Refer to Chapter 2, *Project Description,* for a detailed description of the steps and processes involved in constructing the new power line and reconductoring segment. Due to the longer length of Alternative PLR-1C compared to the Proposed Project 70 kV route, the construction schedule would be extended, as shown in Table 3-7.

Table 3-7. Alternative PLR-1C: Preliminary Construction Phasing, Tasks, and Schedule / Task Duration

Project Phase	Task	Estimated Work Dates	Duration Longer than Proposed Project?
Reconductoring Segment	Site Work Area Preparation Mobilization	Month 1	No
	Pole Installation / Transfer / Distribution / Removal	Month 2-13	Yes
	Conductor Installation	Month 3-14	Yes
	Cleanup and Restoration	Month 15	Yes
New 70 kV Power Line Segment	Site Work Area Preparation Mobilization	Month 15	Yes
	Pole Installation / Transfer / Distribution	Month 16-29	Yes
	Conductor Installation	Month 29-32	Yes
	Cleanup and Restoration	Month 33	Yes

Notes: kV = kilovolt

In total, construction of the reconductoring and new 70 kV power line segments for Alternative PLR-1C would take 15 months longer than the Proposed Project's 18-month schedule for construction of the proposed power line. The types of equipment to be used in each phase of construction for Alternative PLR-1C and hours per day that equipment would be used during construction would be the same as for the Proposed Project (refer to Table 2-10 in Chapter 2, *Project Description,* and Appendix J of the Applicants' PEA for information).

Staging areas and other temporary work/disturbance areas (e.g., pole work areas, crossing structure work areas, pull sites, access roads, and helicopter landing zones) required for construction of Alternative PLR-1C are shown in Figure 3-7 and summarized in Table 3-8. Alternative PLR-1C would utilize the same main staging area in Golden Hill Industrial Park as the Proposed Project.

Table 3-8. Alternative PLR-1C: Temporary Disturbance Areas

Temporary Work Area	Anticipated Site Preparation	Total Approximate Area (Acres)
Staging Areas	Vegetation removal may be required, temporary fencing and gates would be installed, gravel would be installed, and temporary power would be supplied by a distribution tap or generator.	35.24
Pole Work Areas[1]	Vegetation removal and minor grading may be required.	57.57
Crossing Structure Work Areas	Vegetation removal may be required.	0.38
Pull and Tension Sites	Vegetation removal may be required.	41.04
Landing Zones	Sites would be leveled free of obstacles and debris.	1.37
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.	45.64

Notes:

1. Includes TSPs, LDSPs, and existing and new distribution poles.

Parking areas for construction workers would be located at the staging areas and/or temporary work areas. The estimated number of construction vehicle trips and frequency of the trips associated with construction of Alternative PLR-1C are shown in Table 3-9.

Table 3-9. Alternative PLR-1C: Estimated Daily Worker and Truck Trips During Construction

Construction Phase / Task	Daily Worker Round-Trips	Daily Truck Round-Trips	Number of Days	Duration Longer than Proposed Project?	Maximum # of Daily Round-Trips
Reconductoring Segment					
Site Development	6	5	24	No	11
Pole Installation / Transfer / Distribution / Removal	9	7	172	Yes	16
Conductor Installation	9	5	152	Yes	14
Clean-up and Site Restoration	6	3	6	No	9

Construction Phase / Task	Daily Worker Round-Trips	Daily Truck Round-Trips	Number of Days	Duration Longer than Proposed Project?	Maximum # of Daily Round-Trips
New 70 kV Power Line Segment					
Site Preparation / Mobilization	6	5	6	No	11
Pole / Tower Installation	9	6-8	326	Yes	17
Conductor Installation	9	5	82	Yes	14
Clean-up and Site Restoration	6	4	24	No	10

Notes: kV = kilovolt

Approximately 99 vehicle trips would be necessary for vegetation trimming/removal during construction of Alternative PLR-1C. Construction of portions of Alternative PLR-1C that cross over County roadways (see locations of Crossing Structures on Figure 3-6) would require lane closures and/or road closures, which would be up to 5 to 10 minutes at a time, similar to the Proposed Project.

The amount of water that would be required to construct Alternative PLR-1C is expected to be approximately 2.7 million gallons. Short-term irrigation water would not be needed for revegetation efforts at any temporary disturbance areas. Sources of water are anticipated to be the same as for the Proposed Project.

Operation and Maintenance

Operation and maintenance of Alternative PLR-1C would be similar to the Proposed Project 70 kV power line. Refer to Chapter 2, *Project Description,* for detailed description of anticipated operations and maintenance activities. Vehicles accessing the power line during operation and maintenance activities would use the following public roads:

- Wellsona Road
- Dry Creek Road
- Jardine Road
- Tower Road
- Calabaza Way
- Wilderness Lane
- Airport Road
- Estrella Road

The estimated number of vehicle trips and frequency of the trips necessary for operation and maintenance of Alternative PLR-1C would generally be the same as for the Proposed Project. It is anticipated that one vehicle trip per year would be needed for vegetation management activities for Alternative PLR-1C.

3.3.4 Alternative PLR-3: Strategic Undergrounding

Description

Alternative PLR-3: Strategic Undergrounding would involve undergrounding the portion of the Proposed Project's new 70 kV power line which has the greatest potential for aesthetic and other environmental impacts. During scoping for the Proposed Project, and based on CPUC staff and consultant's preliminary analysis of the Proposed Project's potential impacts, it was determined that the portion of the line that passes through the Golden Hill Road area north of SR 46 had the greatest potential for impacts because this area does not have existing above-ground transmission or distribution electrical infrastructure and is an up-and-coming area with new commercial development, recreational uses, and existing single-family residential development.

Figure 3-8 shows the portion of the new 70 kV power line that would be undergrounded for Alternative PLR-3. As shown in Figure 3-8, two undergrounding routes are considered in this EIR.

- **Alternative PLR-3A: Strategic Undergrounding, Option 1.** Beginning at roughly the point where the proposed power line alignment turns west to parallel Wisteria Lane, Option 1 would turn north along Germaine Way and then turn west to follow Wisteria Lane. Where Wisteria Lane meets Golden Hill Road, Option 1 turns north following Golden Hill Road and continues north past Lake Place until the point at which the proposed 70 kV alignment turns to the west (approximately 0.1-mile north of the junction with Lake Place).

- **Alternative PLR-3B: Strategic Undergrounding, Option 2.** This route would be similar to Option 1 except that instead of turning west and following Wisteria Lane, it would follow the proposed 70 kV power line alignment behind San Antonio Winery. After reaching Golden Hill Road, Option 2 would be identical to Option 1 and would continue north on Golden Hill Road past Lake Place until the point at which the proposed 70 kV alignment turns to the west (approximately 0.1 mile north of the junction with Lake Place).

Figure 3-9 and Figure 3-10 show a detailed view of Alternative PLR-3A and PLR-3B, respectively.

Riser Poles and Transition Stations

For both Option 1 and 2, two riser poles would be installed at each end of the underground alignment. A transition station may also be installed at each end of the underground alignment. Transition stations may be required because current on each conductor has to be continuously monitored in case there is an electrical fault in the underground section. By monitoring the current coming into and leaving the underground section, any differential in the current would trip the substation relays/circuit breakers feeding both ends of the transmission line. If the electrical current differential relays trip, it can be determined that the fault is in the underground section of the line and not the overhead portion of the circuit.

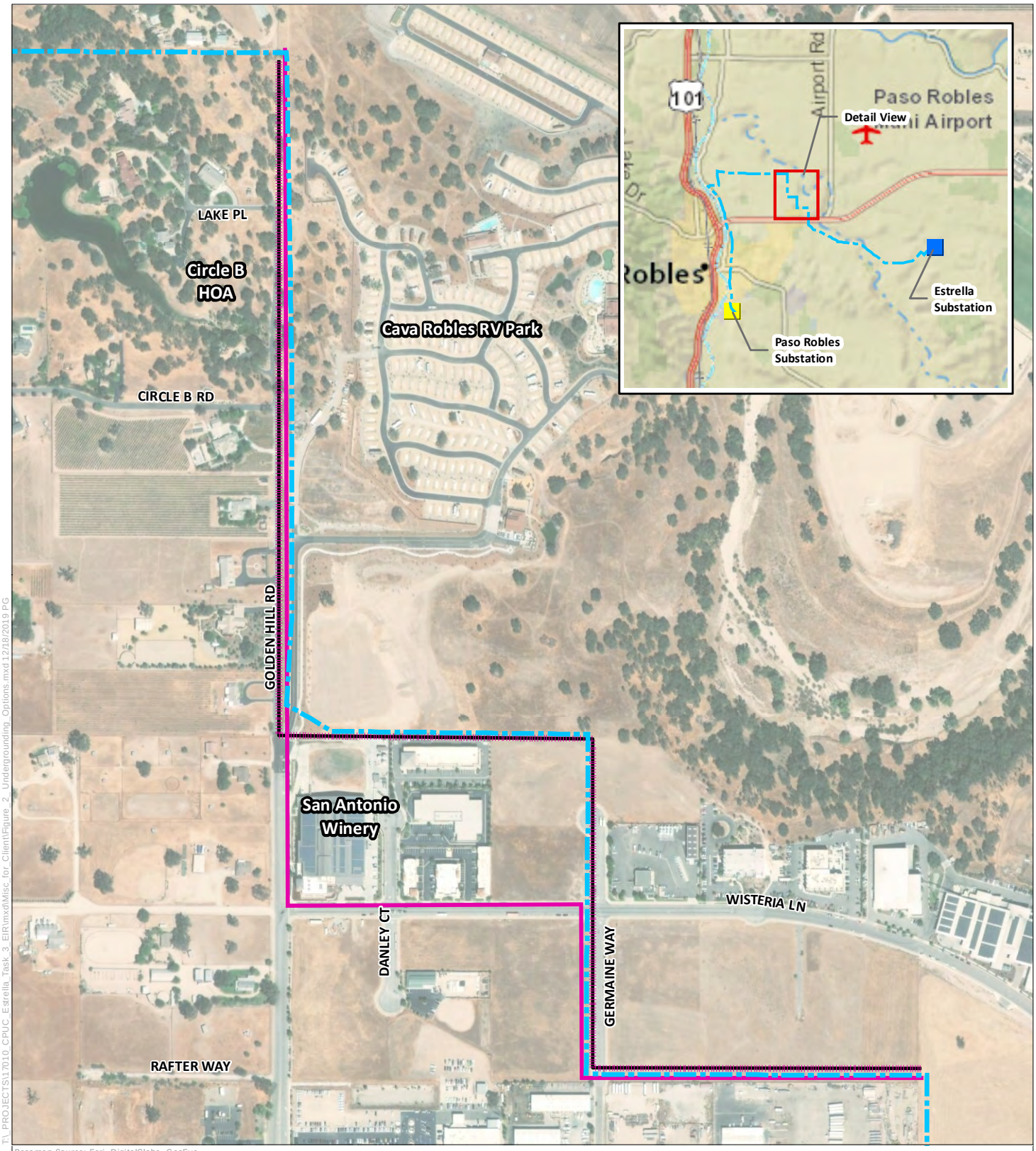
Without the transition stations and their electrical current differential sensing, the underground section of line would need to remain de-energized after any circuit fault and be patrolled and inspected by an underground specialist prior to re-energizing. This means that the entire circuit

would remain de-energized until the underground section can be patrolled and inspected and cleared for re-energization. This could substantially lengthen the restoration time following a circuit fault, particularly given the fact that all Pacific Gas and Electric Company (PG&E) underground specialists are located in the San Francisco Bay Area and would need to travel down to the central coast area. Photographs of example transition stations at PG&E facilities are provided in Figure 3-11.

The physical equipment housed inside the transition stations would include riser poles, a 115 kV bus to accommodate three current transformers, high voltage circuit breakers, a control shed with control panels, fiber optic communication equipment, current differential relays, direct current batteries, and alternating current power panels. The transition station footprints would comprise a 150-foot by 150-foot area. The entire footprint would be considered impervious, as it would consist of a gravel/base rock surface. The transition stations would be owned by PG&E.

Construction

Construction methods for Alternative PLR-3: Strategic Undergrounding would include trenching (or, potentially, boring in certain areas) for installation of the underground line. In this EIR, we conservatively assume trenching would occur along the entire alignment because of greater impacts associated with trenching. Vegetation trimming/removal would be required for portions of the alignment along vegetated areas, and portions of the line within roads would require asphalt cutting to expose the underlying soil. Installation of vaults would require more substantial trenching/excavation, while construction of transition stations may include some excavation, grading, pouring of concrete foundations, and installation of electrical equipment and facilities.



Basemap Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS,

N

0 250 500
Feet

Proposed Project 70-kv Route

Alternative PLR-3A: Strategic Undergrounding, Option 1

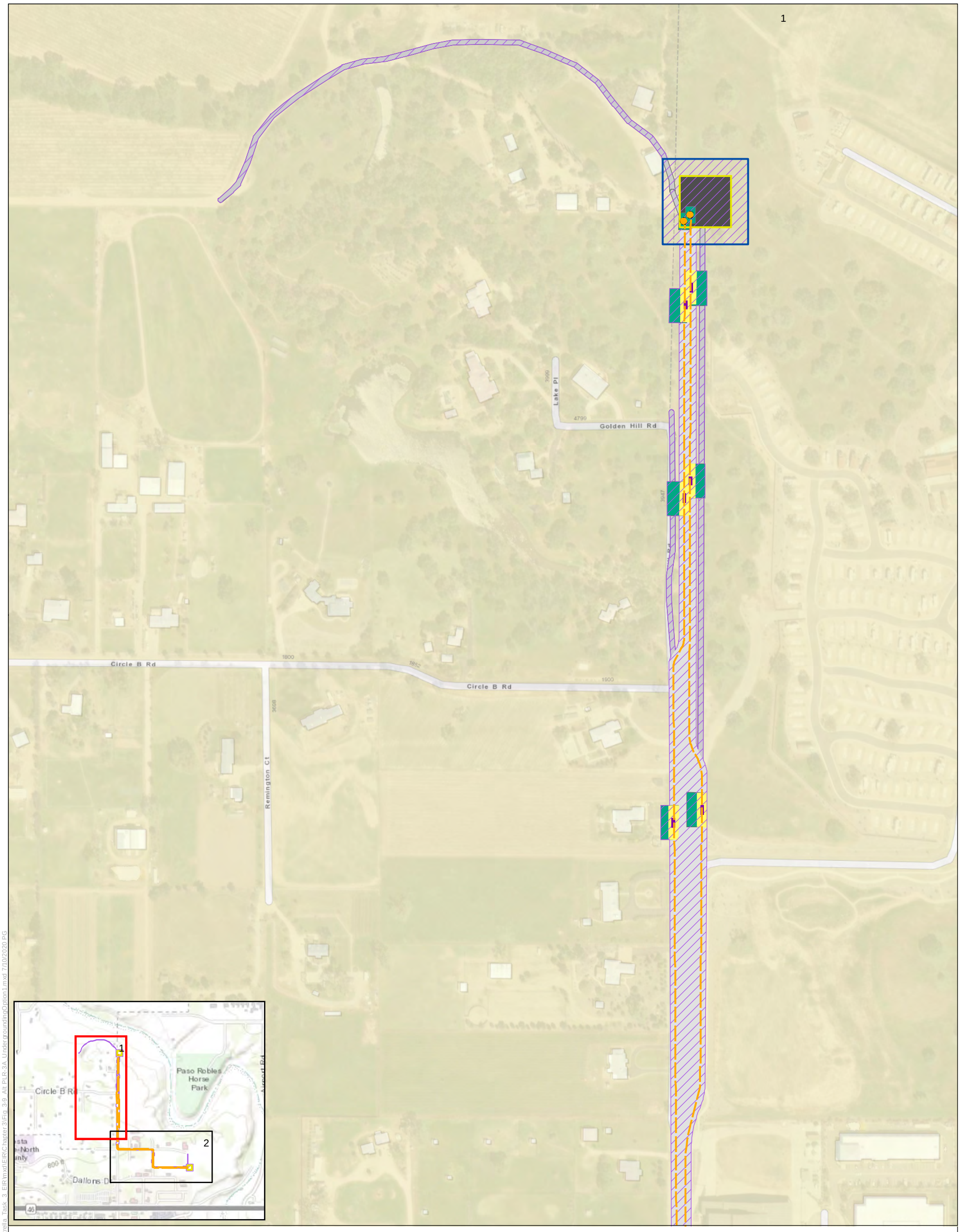
Alternative PLR-3B: Strategic Undergrounding, Option 2

Source: NEET West and PG&E 2019

Figure 3-8.
Alternative PLR-3: Strategic Undergrounding

Note: The route variations shown are offset in order to display the alignments of the alternative routes.

Estrella Substation and Paso Robles Area Reinforcement Project



T:\ PROJECTS\17010 CPUC Estrella Task 3 EIR\mxd\EIR\Chapter 3\Fig 3-9 Alt PLR-3A Undergrounding\Option1.mxd 7/10/2020 PG

Alternative Components

- Alternative PLR-3A Strategic Undergrounding, Option 1
- New Option 1 Riser Poles
- Underground Vault Location
- Transition Station

Construction Disturbance Areas

- Access Route
- Permanent Disturbance
- Temporary Disturbance
- Vault Work Area
- Temporary Pull Sites
- Duct Bank Work Area
- Transition Station Work Area

N

0 500
Feet

Figure 3-9
Alternative PLR-3A: Strategic Undergrounding, Option 1 - Detailed View

Horizon WATER and ENVIRONMENT

Source: ESRI 2020; NEET West; PG&E 2019

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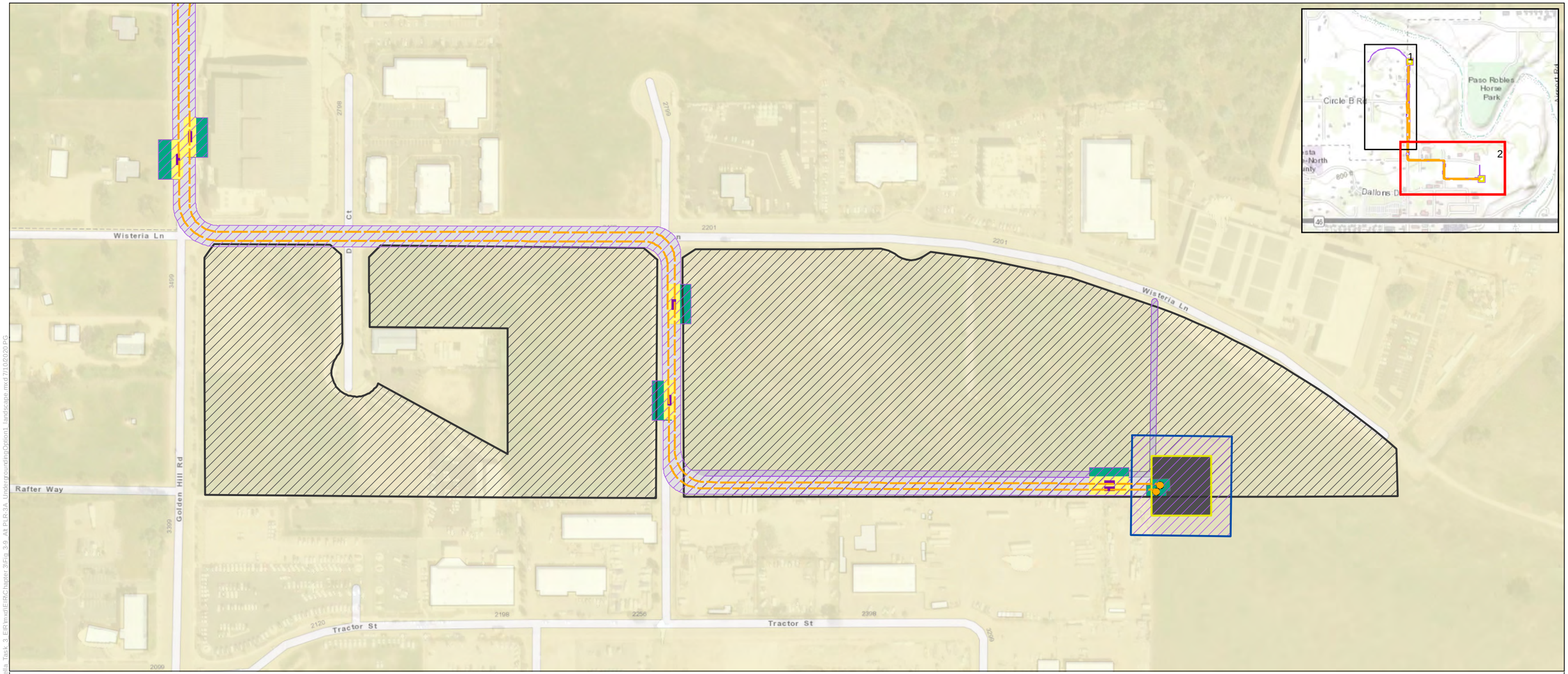

Alternative Components

- Alternative PLR-3A Strategic Undergrounding, Option 1
- New Option 1 Riser Poles
- Underground Vault Location
- Transition Station

Construction Disturbance Areas

- Access Route
- Permanent Disturbance
- Temporary Disturbance
- Vault Work Area
- Temporary Pull Sites
- Duct Bank Work Area
- Transition Station Work Area
- Construction Staging Area

N

0 500
Feet

Source: ESRI 2020; NEET West; PG&E 2019

Figure 3-9
Alternative PLR-3A: Strategic Undergrounding, Option 1 - Detailed View

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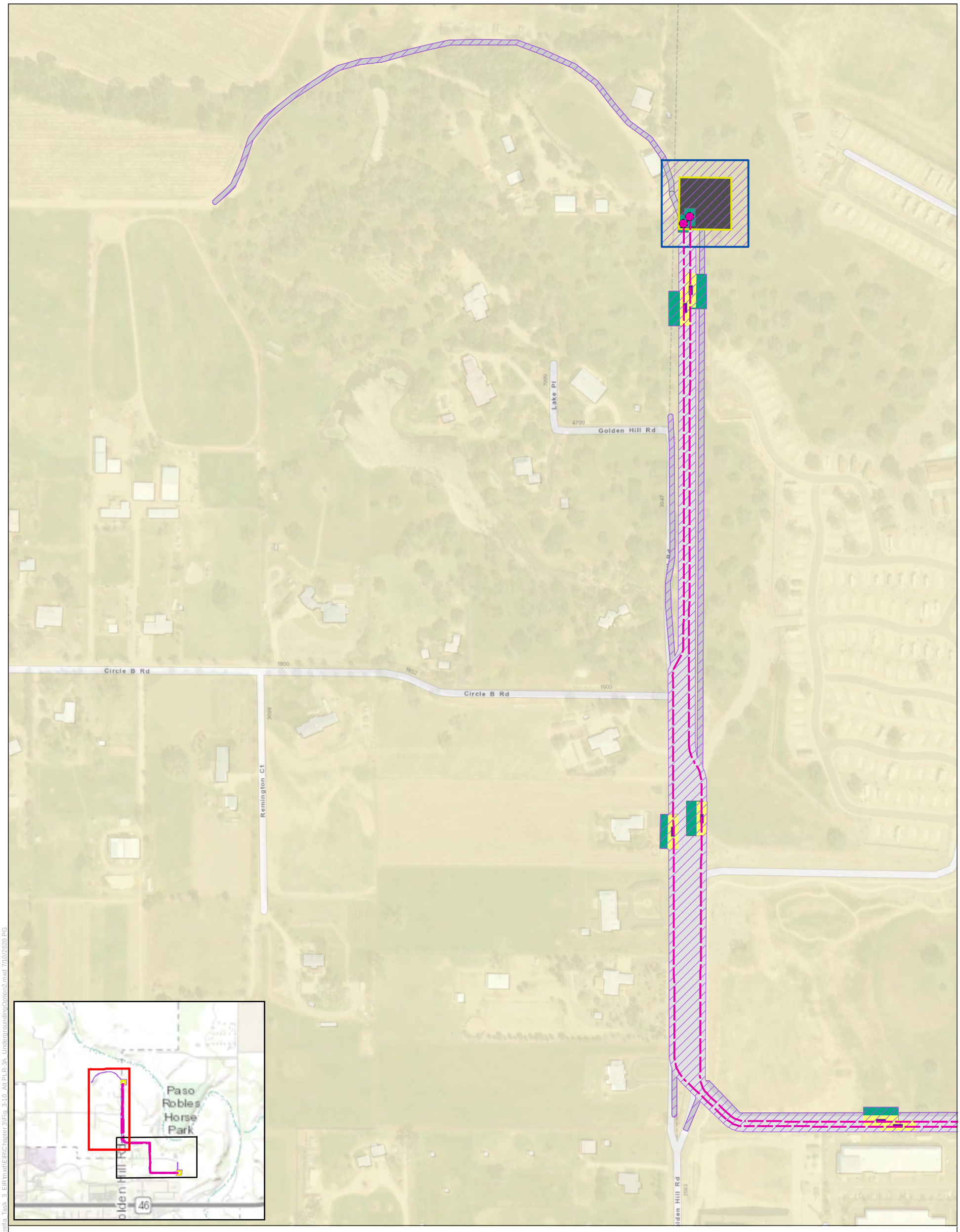

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Figure 3-10
Alternative PLR-3B: Strategic Undergrounding, Option 2 - Detailed View

Source: ESRI 2020; NEET West; PG&E 2019

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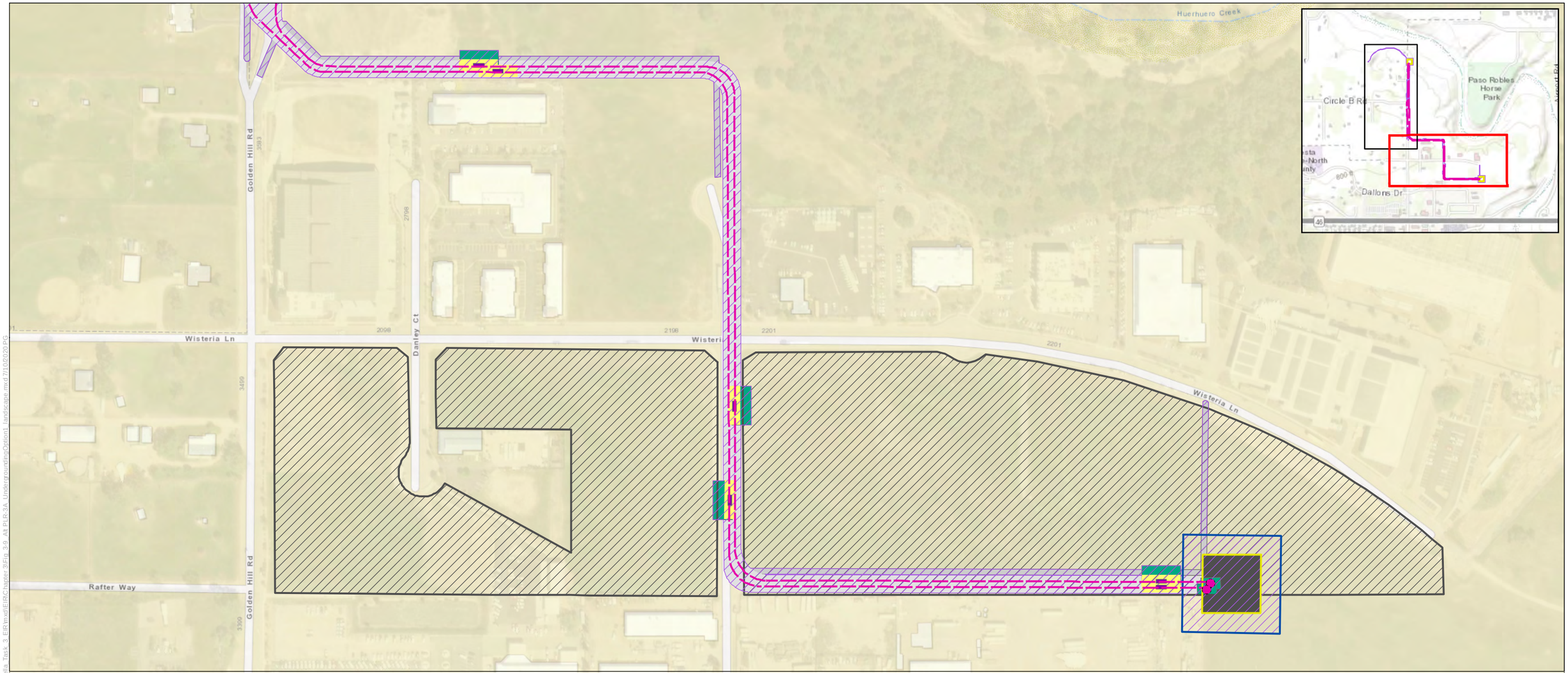

Alternative Components

- Alternative PLR-3A Strategic Undergrounding, Option 2
- New Option 2 Riser Poles
- Underground Vault Location
- Transition Station

Construction Disturbance Areas

- Access Routes
- Permanent Disturbance
- Temporary Disturbance
- Vault Work Area
- Temporary Pull Sites
- Duct Bank Work Area
- Transition Station Work Area
- Construction Staging Area

N

0 500
Feet

Source: ESRI 2020; NEET West; PG&E 2019

Figure 3-10
Alternative PLR-3B: Strategic Undergrounding, Option 2 - Detailed View

Estrella Substation and
Paso Robles Area Reinforcement Project

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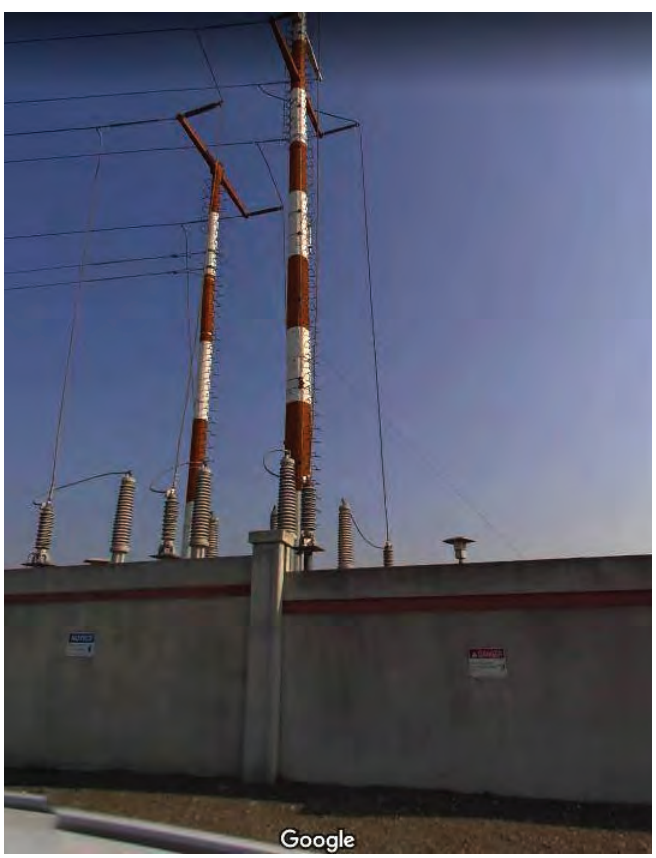


Source: Horizon West/PG&E ND

Figure 3-11.
Example Transition Station Photographs

Estrella Substation and
Paso Robles Area Reinforcement Project

The construction phasing and schedule for Alternative PLR-3A: Strategic Undergrounding, Option 1 and Alternative PLR-3B: Strategic Undergrounding, Option 2 would be identical and is presented in Table 3-10.

Table 3-10. Alternative PLR-3: Preliminary Construction Phasing, Tasks, and Schedule / Task Duration

Project Phase	Task	Estimated Work Dates
Transition Station Installation	-	Month 2-9
New 70 kV Power Line Underground Segment	Site Work Area Preparation Mobilization	Month 1
	Vault Installation	Month 2-4
	Duct Bank Installation	Month 5-8
	Cable Installation	Month 8-11
	Termination / Testing / Commissioning	Month 11-12

Notes: kV = kilovolt

The types of equipment to be used in each phase of construction for Alternative PLR-3A and PLR-3B (equipment use would be identical for the two options) are shown in Table 3-11. This equipment would be used up to 10 hours per day.

Table 3-11. Alternative PLR-3: Preliminary Construction Workforce and Equipment Use

Project Phase / Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day
Transition Stations				
Site Work Area Preparation Mobilization	**Workers**	6	Grader	1
	Backhoe / Dozer / Excavator	1	1-Ton Pickup Truck, 4X4	2
Foundation Construction	**Workers**	6	Trencher	1
	Hole Digger	1	1-Ton Pickup Truck, 4X4	1.75
	Backhoe / Dozer / Excavator	1	Cement Truck	3

Project Phase / Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day
Ground Grid / Conduit Installation	**Workers**	4	1-Ton Pickup Truck, 4X4	2
	Backhoe / Dozer / Excavator	1	Trencher	1
Steel / Bus Erection	**Workers**	6	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
Install Riser Poles with Switches	**Workers**	6	Aerial Man Lift	2
	Boom Truck	2	1-Ton Pickup Truck, 4X4	3
Install Fence and Security Gate	**Workers**	4	1-Ton Pickup Truck, 4X4	2
	Aerial Man Lift	2		
Cable Installation and Termination	**Workers**	4	1-Ton Pickup Truck, 4X4	2
Install Yard Rock	**Workers**	2	Dump Truck	1
	Bobcat	1	Backhoe / Dozer / Excavator	1
New 70 kV Power Line Underground Segment				
Site Work Area Preparation Mobilization	**Workers**	4	Dump Truck	1
	Bulldozer	1	Backhoe	1
	Skid Steer	1	Crew Truck	1
Vault Installation	**Workers**	5	Skid Steer	1
	Crew Truck	1	Line Truck	1
	Dump Truck	1	Crane	1
	Excavator / Backhoe	1	Concrete Truck	1
	Backhoe	1	Delivery Truck	1

Project Phase / Task	Workers, Equipment	Quantity per Day	Equipment	Quantity per Day
Duct Bank Installation	**Workers**	4	Backhoe	1
	Crew Truck	1	Dump Truck	1
	Concrete Truck	1	Skid Steer	1
Cable Installation	**Workers**	4	Cable Reel Trailer	1
	Crew Truck	1	Cable Pulling Winch	1
Termination / Testing / Commissioning	**Workers**	4	Bucket Truck	1
	Crew Truck	1	Crane	1

Notes: kV = kilovolt

Alternatives PLR-3A and PLR-3B would use the same staging areas as the Proposed Project. Each alternative would require establishment/use of four types of temporary work areas during construction:

- Two approximately 150-foot by 150-foot riser structure temporary work areas, one at each end of the alignment;
- Ten (Option 2) to eleven (Option 1) approximately 100-foot by 50-foot vault work areas intermittently located along the length of the alignment;
- One approximately 45-foot-wide to 110-foot-wide duct bank work area along the entire length of the alignment; and
- Ten (Option 2) to twelve (Option 1) approximately 100-foot by 30-foot cable pulling work areas established at the vault locations.

The staging areas and work areas associated with each undergrounding option are shown in Figure 3-9 and Figure 3-10. Construction of Alternative PLR-3A and PLR-3B would also require establishment of several new unpaved access roads, as well as use of existing paved and unpaved roads, all of which are shown on Figure 3-9 and Figure 3-10.

During construction, workers would park at the staging area and/or temporary work areas. Construction of Alternative PLR-3A and PLR-3B would involve single lane closures for multiple weeks while potholing is conducted, asphalt is cut, trenches are dug, soil removed, facilities are installed, trenches filled with slurry, and asphalt is re-installed. Lanes would be closed for approximately 4 to 6 weeks on Germaine Way (previously known as Engine Avenue and Engine Street); 11 to 13 weeks on Wisteria Lane; 7 to 9 weeks on Golden Hill Road; 3 to 5 weeks on the Cava Robles RV Resort driveway, and 4 to 6 weeks on the Circle B Homeowners Association road. The estimated numbers of daily worker and truck trips associated with construction of Alternative PLR-3 are shown in Table 3-12.

Table 3-12. Alternative PLR-3: Estimated Daily Worker and Truck Trips during Construction

Construction Activity	Daily Worker Round-Trips	Daily Truck Round-Trips	Number of Days	Max. Number of Daily Round-Trips
Transition Stations				
Mobilization	6	3-4	8	10
Foundation Construction	1-10	5-6	10	16
Ground Grid / Conduit Installation	5	1-4	16	9
Steel / Bus Erection	5	1-4	10	9
Riser Pole Installation	5	1-4	16	9
Yard Fence and Security Gate Installation	5	1-4	12	9
Install Rock Yard	6	8	5	14
Equipment Delivery and Installation	6	4-5	14	11
Control Enclosure Delivery and Installation	3-5	2	8	7
Cable Installation and Termination	3-5	1-2	10	7
Testing and Commissioning	5	1	12	6
New 70 kV Power Line Underground Segment				
Site Preparation / Mobilization	2	8	10	10
Vault Installation	2	8	50	10
Duct Bank Installation	2	6	64 (Option 1) 57 (Option 2)	8
Cable Installation	2	2	80	4
Termination / Testing / Commissioning	2	0	20	2

Notes: kV = kilovolt.

Table does not include estimates for the number of trips associated with soil/material export/import. This would require geotechnical studies, which have not been completed.

As shown in Table 3-12, the number of trips associated with Alternative PLR-3A (Option 1) and PLR-3B (Option 2) would be identical with the exception of the number of days associated with duct bank installation. Alternative PLR-3A (Option 1) would require approximately 7 more days to install the duct bank, which would result in a greater number of total trips associated with this task, as compared to Alternative PLR-3B (Option 2). Approximately 24 vehicle trips would be necessary for vegetation trimming/removal during construction of Alternative PLR-3. Helicopters would not be required for construction of Alternative PLR-3A or PLR-3B.

The amount of water necessary to construct Alternative PLR-3 (both options) is expected to be approximately 1,702,600 gallons. Water sources are anticipated to be the same as for the Proposed Project. Short-term irrigation water would not be needed for revegetation efforts at any temporary disturbance areas for Alternative PLR-3.

Operation and Maintenance

Operation and maintenance activities for Alternative PLR-3 would include routine inspection of the underground line segment and associated facilities (e.g., transition stations, riser poles), and maintenance and repair of facilities on an as-needed basis. It is anticipated that six to eight vehicle trips per year for operation and maintenance activities and one vehicle trip per year for vegetation management activities would be necessary for Alternative PLR-3. Vehicles accessing the underground line segment and associated facilities under Alternative PLR-3 during operation would use Germaine Way, Wisteria Lane, Golden Hill Road, and Buena Vista Drive.

3.3.5 Alternative SE-1A: Templeton Substation Expansion – New 230/70 kV Substation

Alternative SE-1A: Templeton Substation Expansion would involve expansion of the existing Templeton Substation to include new facilities to support an additional 70 kV double-circuit power line from Templeton Substation to Paso Robles and San Miguel substations. This alternative would entail installing a new 230/70 kV substation immediately adjacent (to the east) to the existing Templeton Substation. The CPUC also considered a variation that would install a new 70 kV substation only (i.e., no 230 kV facilities), but this variation (Alternative SE-1B) was screened out from detailed consideration in the EIR. Refer to the ASR for detailed discussion of this variation.

Description

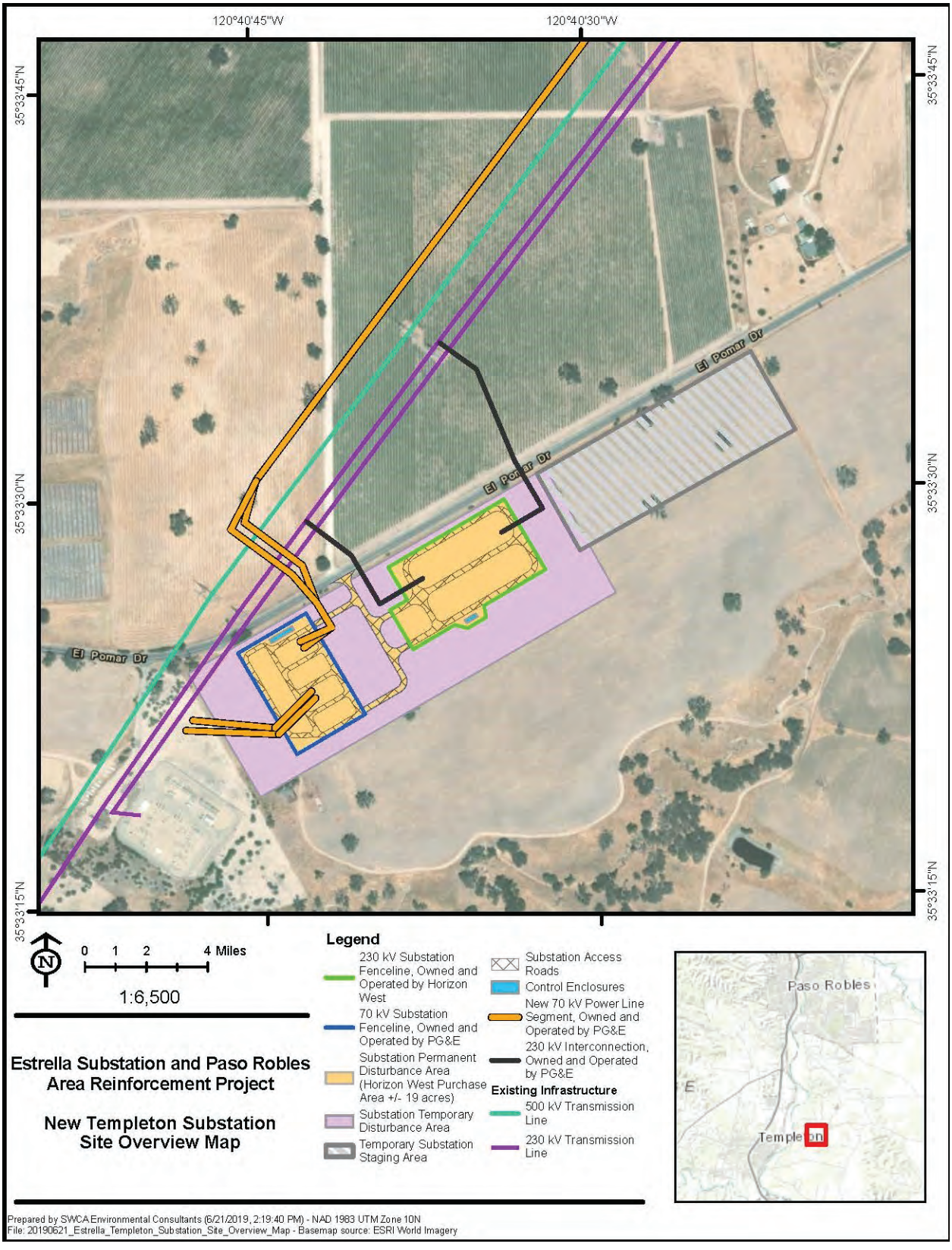
Under Alternative SE-1A, the new 230/70 kV substation would be constructed on an approximately 19-acre site adjacent to the existing Templeton Substation. This site currently is used for agricultural purposes and has several oak trees and several structures existing on the site. Access to the substation site would be off of El Pomar Drive, on a new main private access road.

The new substation would include essentially the same components/equipment as the proposed Estrella Substation. Refer to Chapter 2, *Project Description,* for a description of the substation components. The impervious surface area associated with the proposed facilities for Alternative SE-1A would be the same as the Proposed Project, at approximately 2 acres. The 230 kV interconnection for Alternative SE-1A would be approximately 500 feet longer than the Proposed Project's 230 kV interconnection.

Power required for the 230/70 kV substation would be supplied by tapping into the existing power lines adjacent to each substation site and/or from the 230/70 kV bank to be installed. Electric service would be requested from the local utility and applied for so that power can be served from the existing power lines adjacent to the station. The new 230/70 kV substation would connect to the telecommunications network at the existing Templeton Substation.

On-site stormwater infrastructure to be included as part of Alternative SE-1A would be the same as the proposed Estrella Substation, which includes a secondary containment basin in the 230 kV substation and a concrete skimmer and weir device within the 70 kV substation. The secondary containment basin would measure 42 feet long by 36 feet wide by 2.5 feet deep. The quantity of mineral oil to be used for transformers for Alternative SE-1A would be the same (approximately 15,290 gallons) as the Proposed Project.

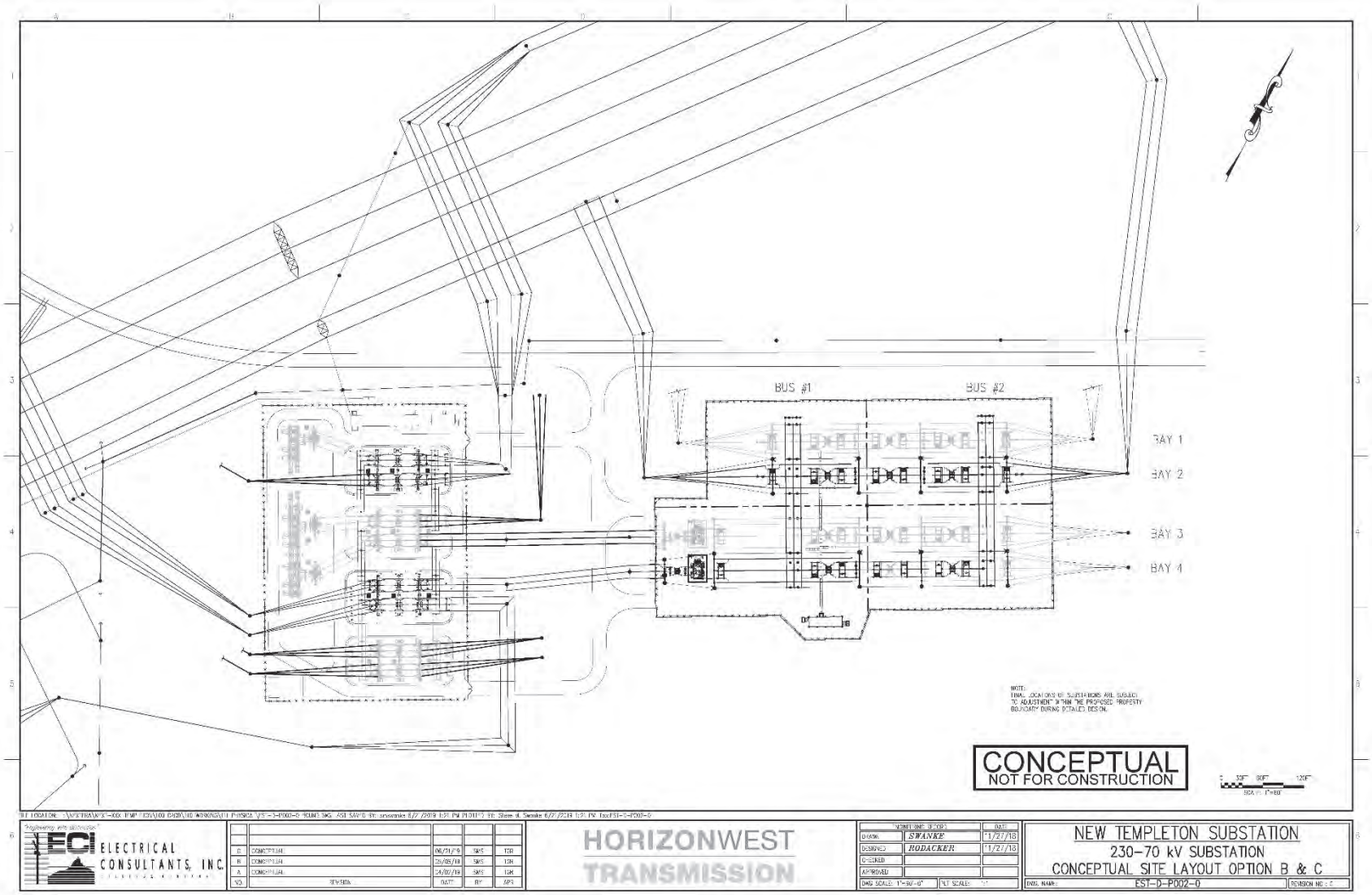
Figure 3-12 shows the new 230/70 kV substation under Alternative SE-1A, including temporary disturbance areas during construction**.** Figure 3-13 shows a detailed view of the substation conceptual design and proposed electrical components and facilities.



Source: HWT and PG&E 2019

Figure 3-12.
Alternative SE-1A: Templeton Substation Expansion, 230/70 kV Substation - Overview

Prepared by:
Horizon WATER and ENVIRONMENT



Source: HWT and PG&E 2019

Figure 3-13.
Alternative SE-1A: Templeton Substation Expansion, 230/70 kV Substation - Detailed Layout View

Prepared by:
Horizon WATER and ENVIRONMENT

Construction

Construction of the new 230/70 kV substation under Alternative SE-1A would follow a similar process to that described for the proposed Estrella Substation in Chapter 2, *Project Description.* Construction of Alternative SE-1A would take slightly longer than the proposed Estrella Substation due to the longer length of the 230 kV interconnection (see Table 3-13).

Table 3-13. Alternative SE-1A: Preliminary Construction Phasing, Tasks, and Schedule / Task Duration

Project Phase	Task	Estimated Work Dates	Duration Longer than Proposed Project?
Substation Site	Site Work Area Preparation Mobilization	Month 1-2	No
	Access Roads	Month 1	No
	Fence and Gate Installation	Month 2	No
230 kV Substation	Foundation Construction	Month 2-3	No
	Ground Grid / Conduit Installation	Month 3-4	No
	Steel / Bus Erection	Month 4	No
	Install Yard Rock	Month 4-5	No
	Transformer and Equipment Delivery and Installation	Month 4-5	No
	Control Enclosure Delivery and Install	Month 5	No
	Equipment Delivery and Install	Month 5-6	No
	Cable Installation and Termination	Month 5-6	No
	Testing and Commissioning	Month 6-7	No
	Cleanup and Restoration	Month 7	No
70 kV Substation	Foundation Construction	Month 2-3	No
	Ground Grid / Conduit Installation	Month 2-3	No
	Steel / Bus Erection	Month 3-4	No
	Control Enclosure Delivery and Install	Month 4	No
	Equipment Delivery and Installation	Month 4	No
	Cable Installation and Termination	Month 4-5	No
	Install Yard Rock	Month 5	No
	Cleanup and Restoration	Month 5	No

Project Phase	Task	Estimated Work Dates	Duration Longer than Proposed Project?
	Testing and Commissioning	Month 6	No
230 kV Transmission Connection	Foundation Tower Installation / Removal of One Tower	Month 2-4	Yes
	Conductor	Month 4-5	Yes
	Cleanup and Restoration	Month 6	Yes

Notes: kV = kilovolt

The types of equipment to be used in each phase of construction for Alternative SE-1A and hours per day that equipment would be used during construction would be the same as for the Proposed Project (refer to Table 2-10 in Chapter 2, *Project Description,* and Appendix J of the Applicants' PEA for information). Because geotechnical studies have not been completed for the Templeton Substation Expansion site, the volume of soil/material to be imported/exported during construction and the associated number and length of haul trips during construction cannot be determined.

Construction of Alternative SE-1A would require an approximately 25.2-acre total work area (including a 6.8-acre substation staging area), as shown in Figure 3-12. During construction, workers would park at the staging area and/or temporary work areas. Construction of the substation and 230 kV interconnection would be unlikely to necessitate any temporary road or lane closures; however, any lane changes would be in accordance with traffic control plans filed with the encroachment permit application. The number of construction vehicle trips and the frequency of the trips for Alternative SE-1A is estimated to be the same as for the Proposed Project (refer to Table 4.17-3 in Section 4.17, "Transportation"); however, as noted above, the number and frequency of haul trips associated with soil import/export cannot be determined since geotechnical studies have not been completed. Approximately 5 vehicle trips would be necessary for vegetation trimming/removal during construction of Alternative SE-1A.

Helicopters would be used for construction of the facilities in Alternative SE-1A. Helicopter landing zones for this alternative include:

- Landing Zone 1: Paso Robles Municipal Airport
- Landing Zone 2: New 70 kV power line site northwest of Neal Springs Road and southwest of Hanging Tree Road. This landing zone would be approximately 1.3 acre, with a 30- by 30-foot touchdown pad area.

Helicopter flight paths would generally be between the two landing zones.

The amount of water necessary to construct Alternative SE-1A is expected to be similar to the proposed Estrella Substation; however, geotechnical studies would be needed to determine the amount of water needed for soil compaction. As described in Chapter 2, *Project Description,*

construction of the substation is estimated to require 8.3 million gallons of water, with the majority (75 percent) used for dust control. Water sources are anticipated to be the same as for the Proposed Project. Short-term irrigation water would not be needed for revegetation efforts at any temporary disturbance areas for Alternative SE-1A.

Alternative SE-1A would require removal of a number of oak trees present on the expansion site, some of which may be considered heritage oaks. Based on aerial imagery, there appear to be at least nine oak trees, as well as a cluster of trees of unknown species, within the disturbance area for Alternative SE-1A.

Operation and Maintenance

Operation and maintenance of Alternative SE-1A would be similar to the proposed Estrella Substation. Refer to Chapter 2, *Project Description,* for detailed description of anticipated operations and maintenance activities. Specifically, the amount and frequency of hazardous materials transport and disposal required during operation of Alternative SE-1A would be the same as the proposed Estrella Substation. The mineral oil stored in the transformer on the 230 kV substation would be filtered and replaced on site.

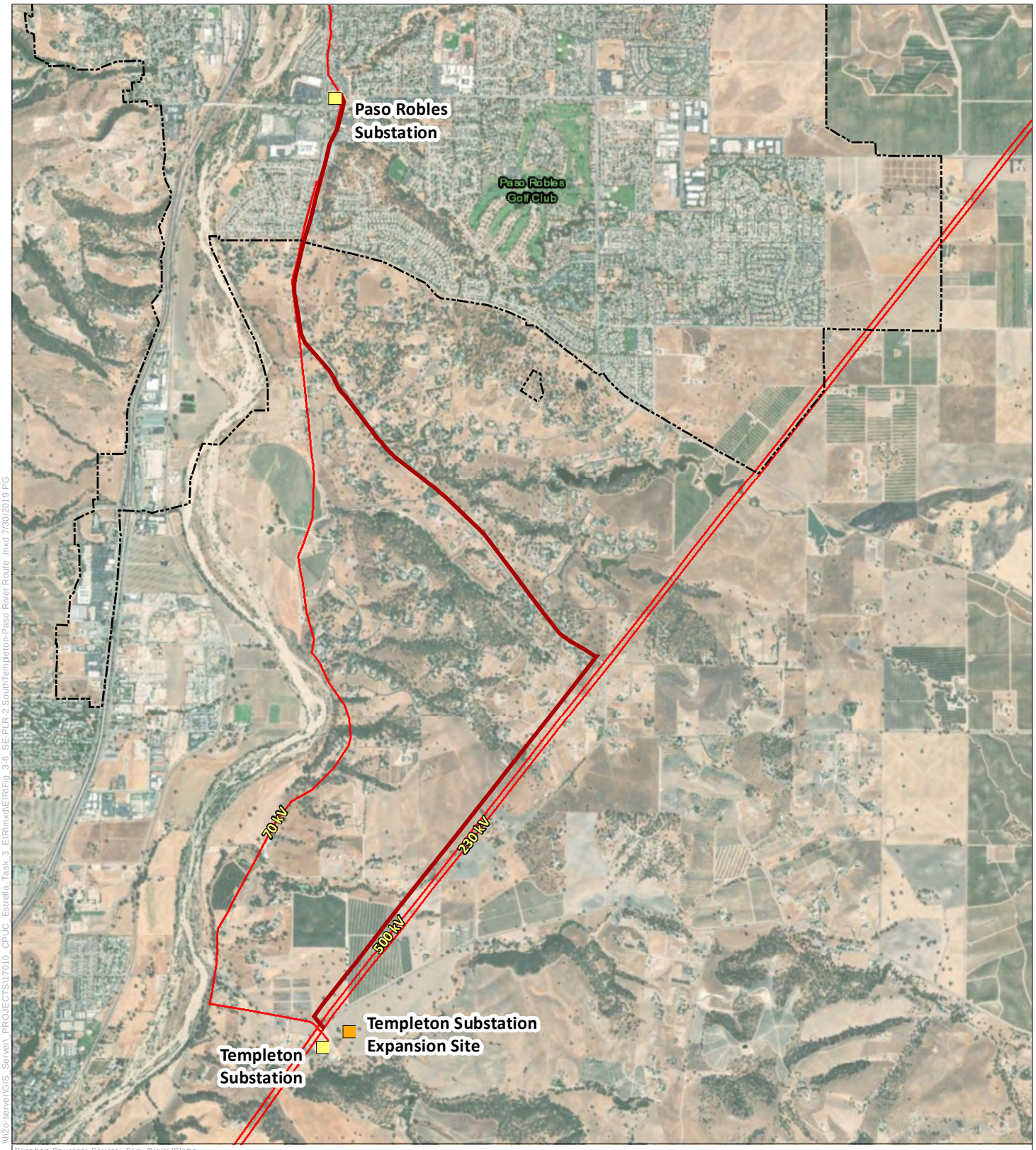
Vehicles accessing the 230/70 kV substation during operation would use El Pomar Drive and Redondo Lane. The estimated number of vehicle trips and frequency of the trips necessary for operation and maintenance of the facilities under Alternative SE-1A would be the same as for the Proposed Project. It is anticipated that one vehicle trip per year would be needed for vegetation management activities for Alternative SE-1A.

3.3.6 Alternative SE-PLR-2: Templeton-Paso South River Road Route

Description

Alternative SE-PLR-2: Templeton–Paso South River Road Route is the 70 kV power line route that would be used to connect the expanded Templeton Substation (Alternative SE-1A) to Paso Robles Substation. Alternative SE-PLR-2 would be constructed in tandem with Alternative SE-1A.

As shown in Figure 3-14, starting at Templeton Substation, the Templeton-Paso South River Road Route follows the existing 230/500 kV transmission line corridor northeasterly for approximately 2 miles to where it intersects with South River Road. At this point, the route would veer to the northwest and follow South River Road (on the southwest side), continuing northwesterly through three HOAs until it reaches the intersection of Santa Ysabel Avenue and South River Road. The route would then continue northerly along the easterly side of South River Road paralleling the existing Templeton–Paso single-circuit 70 kV power line (on the other side of the road) until it reaches the city limits of Paso Robles at the intersection of Charolais Road and South River Road. At this point, the route would continue northerly on the eastern side of South River Road for approximately 0.7 mile, terminating just north of Paso Robles Substation. Figure 3-15 provides a more detailed view of the 70 kV power line route under Alternative SE-PLR-2.



Basebap Sources: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,

Alternative

- Alternative SE-PLR-2: Templeton-Paso South River Road Route
- Alternative SE-1: Templeton Substation Expansion

Existing Infrastructure

- Existing Substations
- Transmission Lines

Paso Robles City Limits

N

0 0.5 Miles

Source: Source: NEET West and PG&E 2017

Note: The route variations shown are offset in order to display the alignments of the alternative routes that may overlap in places.

Figure 3-14
Alternative SE-PLR-2: Templeton-Paso South River Road Route - Overview

Estrella Substation and Paso Robles Area Reinforcement Project

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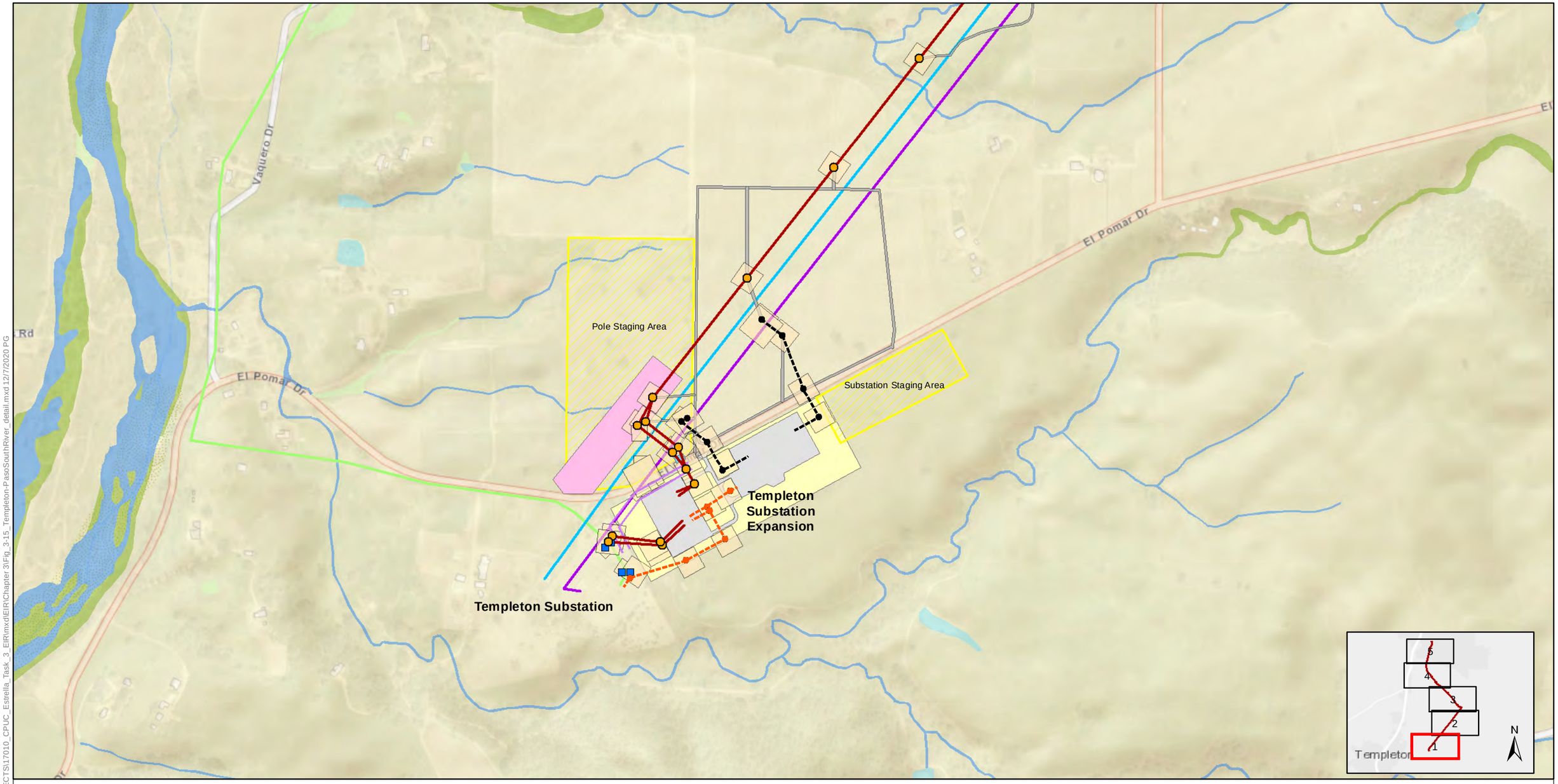

Basebap Sources: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA,

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- New 70kV Poles
- Existing 70 kV Pole to be Removed
- Existing Distribution Underground Conversion

Construction Temporary Disturbance Areas

- Construction Staging Area
- Temporary Pull Sites
- Access Routes
- Pole Temporary Work Area
- Temporary Crossing Structure Work Area
- Substation Temporary Disturbance Area

Substation Alternative (Alternative SE-1)

- 70kV Tie Line Poles
- 70kV Tie Line
- 230kV Poles
- 230kV Interconnection
- Substation Permanent Disturbance Area

Existing Infrastructure

- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Figure 3-15
Alternative SE-PLR-2: Templeton-Paso South River Route – Detailed View

Sheet 1 of 5

Estrella Substation and Paso Robles Area Reinforcement Project

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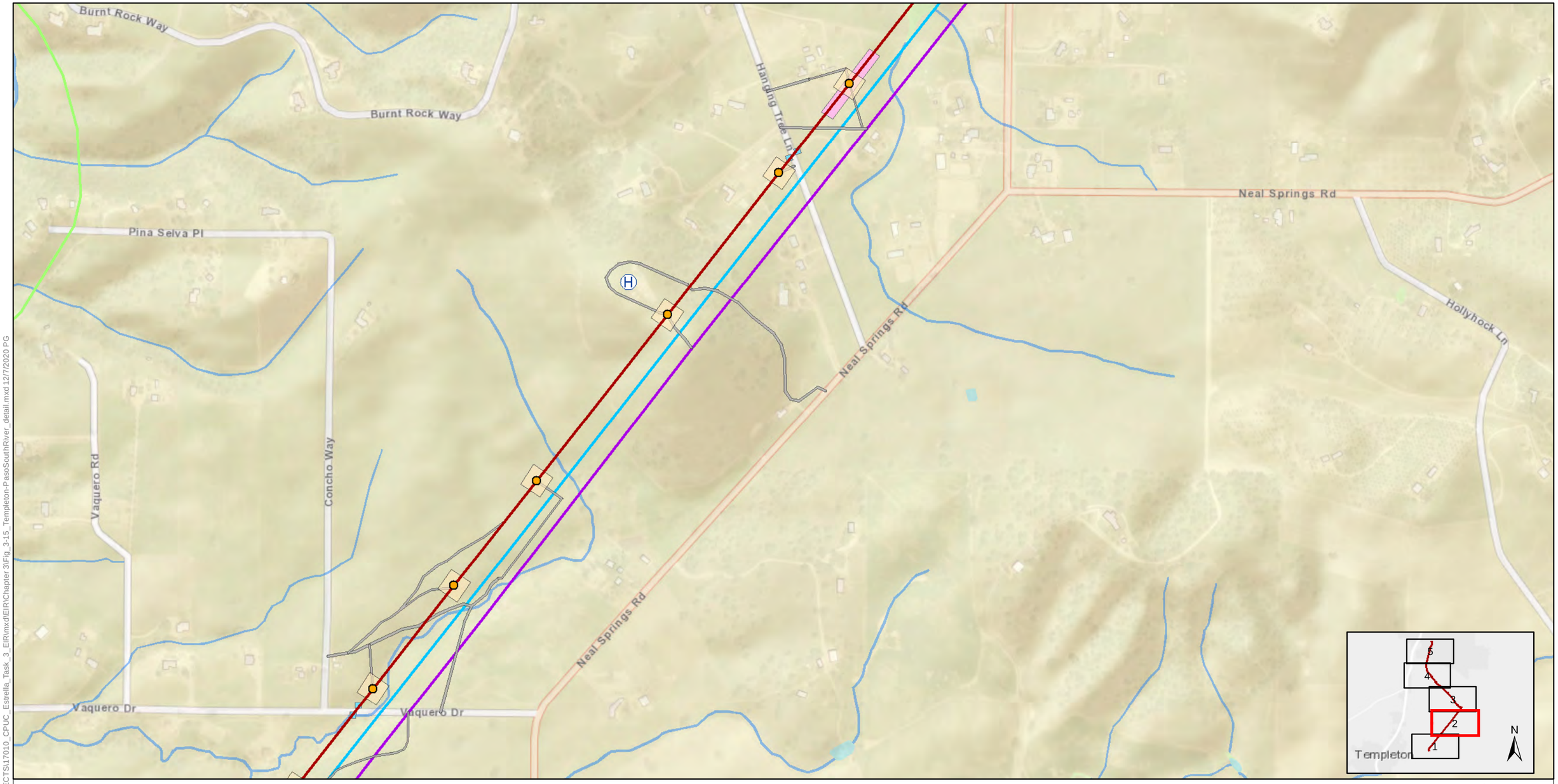

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Basebap Sources: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA,

Alternative Components
- New 70kV Power Line Alignment
- New 70kV Poles

Construction Temporary Disturbance Areas
- Temporary Pull Sites
- Access Routes
- Pole Temporary Work Area
- Temporary Crossing Structure Work Area
- Helicopter Landing Zones

Substation Alternative (Alternative SE-1)

Existing Infrastructure
- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory
- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Figure 3-15

Alternative SE-PLR-2: Templeton-Paso South River Route – Detailed View

Sheet 2 of 5

Estrella Substation and Paso Robles Area Reinforcement Project

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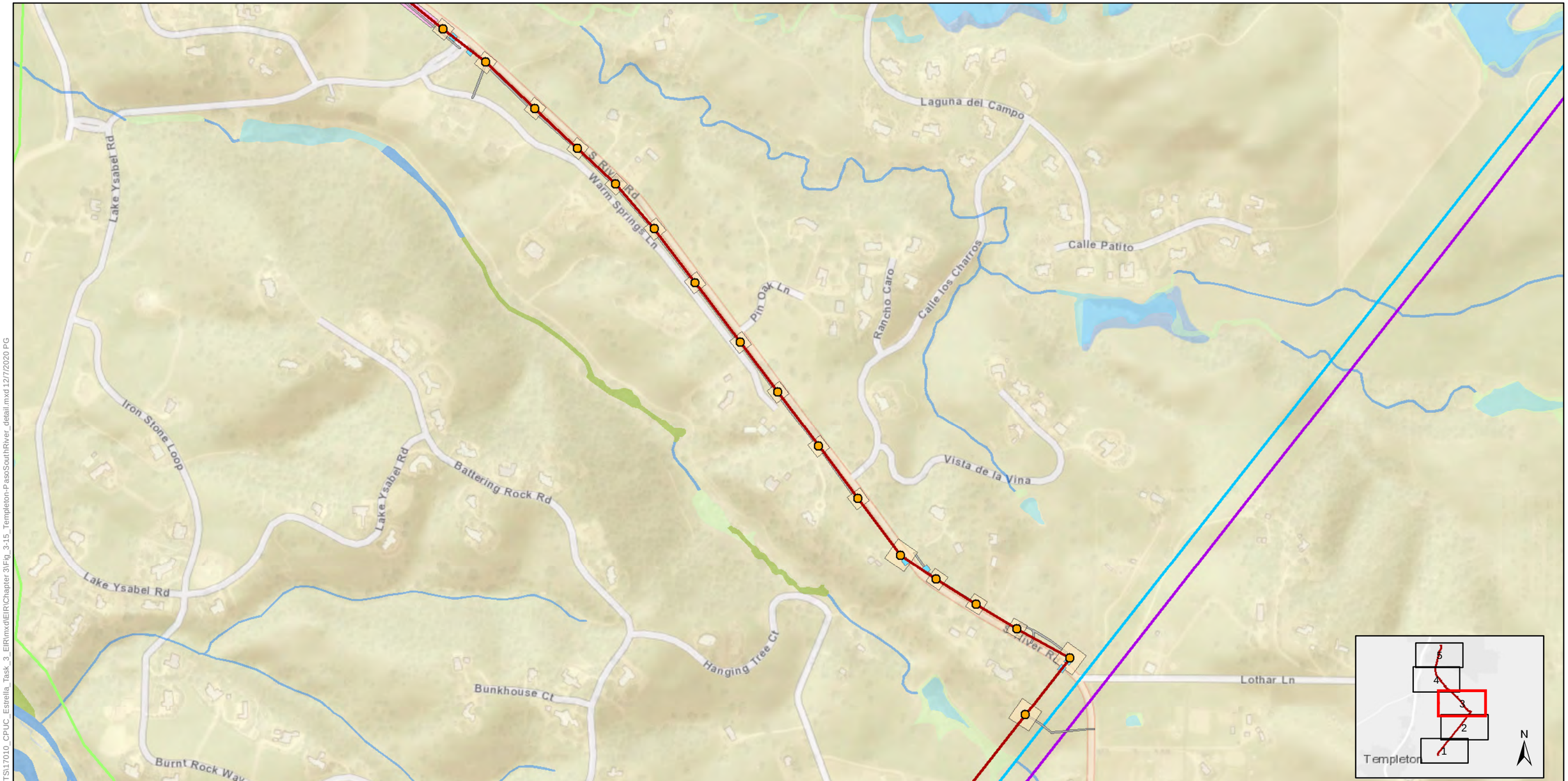

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Basebap Sources: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA,

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Alternative Components

- New 70kV Power Line Alignment
- New 70kV Poles

Construction Temporary Disturbance Areas

- Temporary Pull Sites
- Access Routes
- Pole Temporary Work Area
- Temporary Crossing Structure Work Area

Substation Alternative (Alternative SE-1)

Existing Infrastructure

- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Figure 3-15

Alternative SE-PLR-2: Templeton-Paso South River Route – Detailed View

Sheet 3 of 5

Estrella Substation and Paso Robles Area Reinforcement Project

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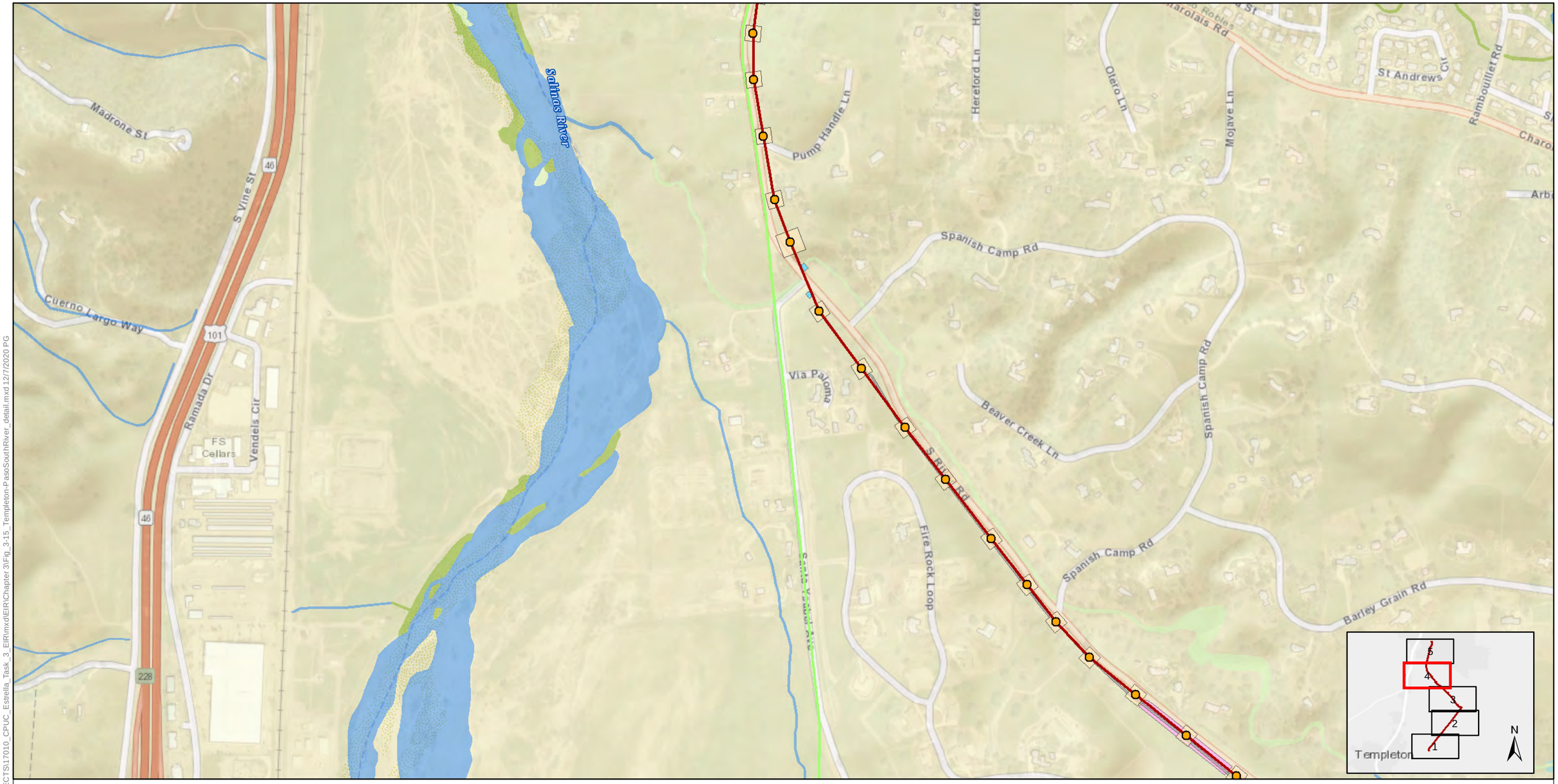

Basebap Sources: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA,

Alternative Components
- New 70kV Power Line Alignment
- New 70kV Poles

Construction Temporary Disturbance Areas
- Temporary Pull Sites
- Access Routes
- Pole Temporary Work Area
- Temporary Crossing Structure Work Area

Substation Alternative (Alternative SE-1)

Existing Infrastructure
- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Figure 3-15

Alternative SE-PLR-2: Templeton-Paso South River Route – Detailed View

Sheet 4 of 5

Estrella Substation and Paso Robles Area Reinforcement Project

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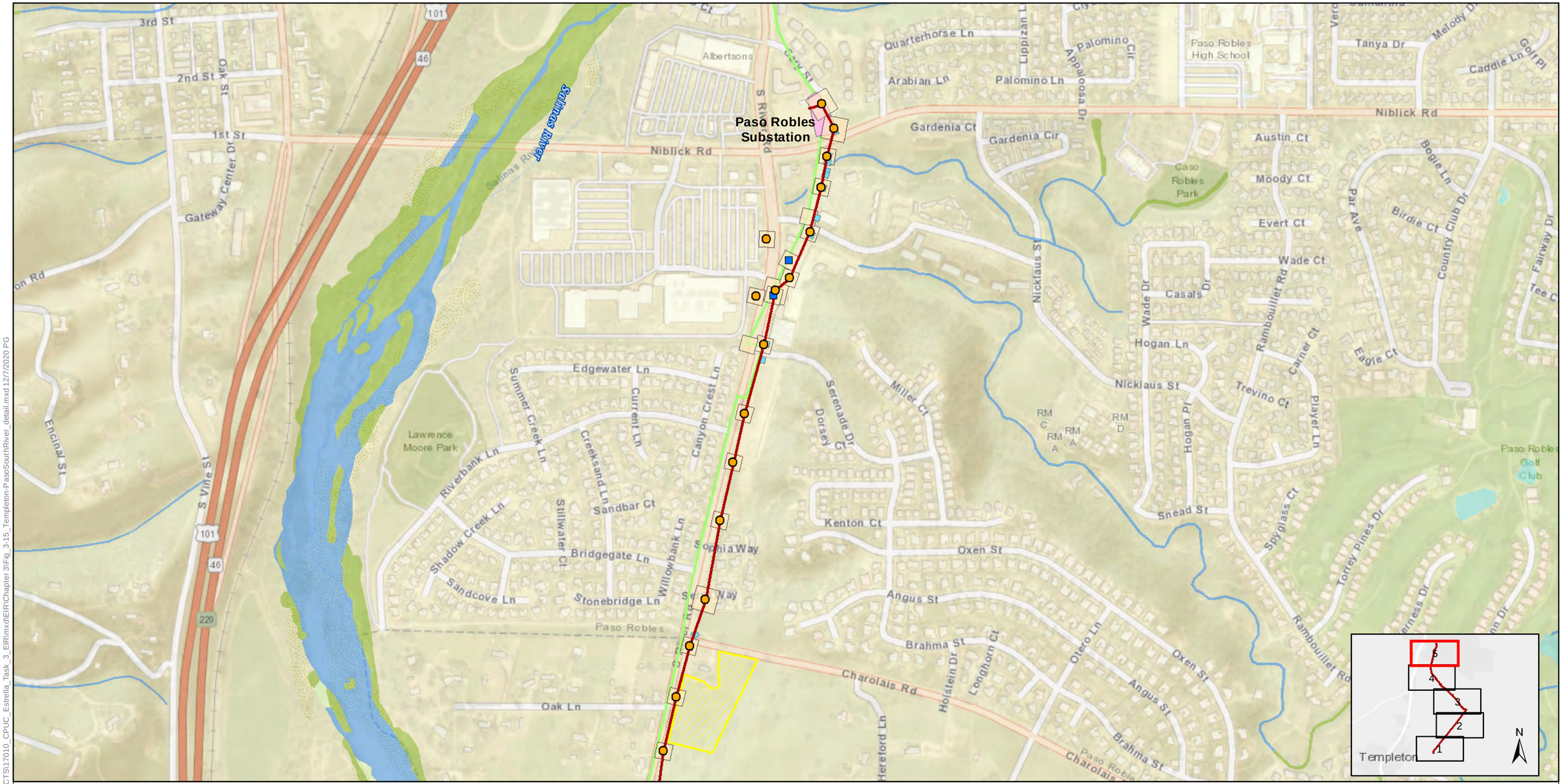

Basebap Sources: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA,

Alternative Components

- New 70kV Power Line Alignment
- New 70kV Poles
- Existing 70 kV Pole to be Removed

Construction Temporary Disturbance Areas

- Construction Staging Area
- Temporary Pull Sites
- Pole Temporary Work Area
- Temporary Crossing Structure Work Area

Substation Alternative (Alternative SE-1)

Existing Infrastructure

- 500 kV Transmission Line
- 230 kV Transmission Line
- 70 kV Power Line

National Wetland Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

N

0 125 250 500

Feet

Horizon WATER and ENVIRONMENT

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Figure 3-15

Alternative SE-PLR-2: Templeton-Paso South River Route – Detailed View

Sheet 5 of 5

Estrella Substation and Paso Robles Area Reinforcement Project

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The total length of the Templeton-Paso South River Route from Templeton Substation to Paso Robles Substation is approximately 5.2 miles. The 3-mile-long reconductoring segment described for the Proposed Project would not be required under this alternative. The new 70 kV power line under Alternative SE-PLR-2 would be comprised of a combination of TSPs and LDSPs. Typical drawings of each structure type are shown in Chapter 2, *Project Description,* Figure 2-17.

Power line structures would vary in height depending on their location and purpose, but typically would range between 80 to 90 feet. Generally, portions of the new 70 kV power line within the existing 500/230 kV transmission line corridor would utilize TSPs with average span lengths of 900 feet. The remainder of the alignment would utilize TSPs and LDSPs with average span lengths of 380 feet.

Construction

Construction of the new 70 kV power line under Alternative SE-PLR-2 would follow a similar process to that described for the Proposed Project in Chapter 2, *Project Description.* Due to the shorter length of the new power line under Alternative SE-PLR-2 and avoided need for the reconductoring segment, the construction schedule would be shortened compared to the Proposed Project. Table 3-14 summarizes the construction schedule for Alternative SE-PLR-2.

Table 3-14. Alternative SE-PLR-2: Preliminary Construction Phasing, Tasks, and Schedule / Task Duration

Project Phase	Task	Estimated Work Dates
New 70 kV Power Line	Site Work Area Preparation Mobilization	Month 1
	Pole Installation / Transfer / Distribution	Month 2-7
	Conductor Installation	Month 8-9
	Cleanup and Restoration	Month 9

Notes: kV = kilovolt

In total, construction of the new 70 kV power line for Alternative SE-PLR-2 would take 9 months less than the Proposed Project's 18-month construction schedule for the power line. The types of equipment to be used in each phase of construction for Alternative SE-PLR-2 and hours per day that equipment would be used during construction would be the same as for the Proposed Project (refer to Table 2-9 in Chapter 2, *Project Description,* and Appendix J of the Applicants' PEA for information).

Staging areas and other temporary work/disturbance areas (e.g., pole work areas, crossing structure work areas, pull sites, access roads, and helicopter landing zones) required for construction of Alternative SE-PLR-2 are shown in Figure 3-15 and summarized in Table 3-15.

Table 3-15. Alternative SE-PLR-2 Temporary Disturbance Areas

Temporary Work Area	Anticipated Site Preparation	Total Approximate Area (Acres)[1]
Staging Areas[2]	Vegetation removal may be required, temporary fencing and gates would be installed, gravel would be installed, and temporary power would be supplied by a distribution tap or generator.	32.5
Pole Work Areas[3]	Vegetation removal and minor grading may be required.	34.9
Crossing Structure Work Areas	Vegetation removal may be required.	1.1
Pull and Tension Sites	Vegetation removal may be required.	8.5
Landing Zones	Sites would be leveled free of obstacles and debris.	1.3
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.	3.8

Notes:

1. Acreage totals do not account for overlapping work areas.
2. The primary staging area may be replaced with an approximately 10-acre staging area located on Paso Robles Municipal Airport property.
3. Includes TSPs, LDSPs, and existing and new distribution poles.

Parking areas for construction workers would be located at the staging areas and/or the temporary work areas. The estimated number of construction vehicle trips and frequency of the trips associated with construction of Alternative SE-PLR-2 are shown in Table 3-16.

Table 3-16. Alternative SE-PLR-2: Estimated Daily Worker and Truck Trips During Construction

Construction Phase / Task	Daily Worker Round-Trips	Daily Truck Round-Trips	Number of Days	Duration Longer than Proposed Project?	Maximum # of Daily Round-Trips
New 70 kV Power Line					
Site Preparation / Mobilization	6	5	24	Yes	11
Pole / Tower Installation	9	6-8	144	No	17
Conductor Installation	9	5	36	No	14
Clean-up and Site Restoration	6	4	12	No	10

Notes: kV = kilovolt

Approximately 81 vehicle trips would be necessary for vegetation trimming/removal during construction of Alternative SE-PLR-2. Construction of portions of Alternative SE-PLR-2 that cross over County roadways (see locations of Crossing Structures on Figure 3-15) would require lane closures and/or road closures, which would be up to 5 to 10 minutes at a time, similar to the Proposed Project.

The amount of water that would be required to construct Alternative SE-PLR-2 is expected to be approximately 715,000 gallons. Short-term irrigation water would not be needed for revegetation efforts at any temporary disturbance areas. Sources of water are anticipated to be the same as for the Proposed Project.

Operation and Maintenance

Operation and maintenance of Alternative SE-PLR-2 would be similar to the Proposed Project 70 kV power line. Refer to Chapter 2, *Project Description,* for detailed description of anticipated operations and maintenance activities. Vehicles accessing the power line during operation and maintenance activities would use the following public roads:

- El Pomar Drive
- Neal Spring Road
- Vaquero Drive
- Hanging Tree Road
- South River Road
- Oak Hill Road
- Niblick Road
- Cary Street

The estimated number of vehicle trips and frequency of the trips necessary for operation and maintenance of Alternative SE-PLR-2 would generally be the same as for the Proposed Project. It

is anticipated that one vehicle trip per year would be needed for vegetation management activities for Alternative SE-PLR-2.

3.3.7 Alternative BS-2: Battery Storage to Address the Distribution Need

Description

Alternative BS-2 would involve installation of front-of-the-meter (FTM) battery energy storage systems (BESSs) connected to the distribution system to defer the need for additional distribution capacity in the Paso Robles DPA, in accordance with the Distribution Objective of the Proposed Project. As noted in Chapter 2, *Project Description,* the distribution need forecast (i.e., LoadSEER forecast) has changed markedly since submittal of the original PEA and Proposed Project application, with the most recent (2020) load forecast showing that additional distribution capacity may not be needed for another 5 to 15 years. Particularly in light of the COVID-19 pandemic occurring at the time of writing this DEIR, future distribution load demand conditions are highly uncertain. Nevertheless, future load growth could require additional distribution service capacity in the Paso Robles DPA, potentially on short notice (e.g., due to large load applications). The sizes of the FTM BESSs ultimately deployed under Alternative BS-2 would depend on these future load conditions and are unknown at this time.

BESS facilities under Alternative BS-2 would function to "shave" peak loads during periods when energy use along these feeders is high (i.e., reduce peak loads during the summer) to relieve pressure on the area substations and feeders. BESSs would likely operate on a daily cycle where they would discharge to the distribution grid during hours of peak demand and charge from the distribution grid during hours of lower demand (e.g., nighttime). Sites

Potentially feasible sites for FTM BESSs in the vicinity of Paso Robles Substation and at other area substations are shown in Figure 3-16 and summarized in Table 3-17 . A more detailed view of each site is provided in Figure 3-17 through Figure 3-24. The sites were selected as illustrative examples for the purposes of this CEQA analysis. Need for the reasonably foreseeable distribution components may not occur for up to 15 years as discussed in Chapter 2, *Project Description*. It is not possible to identify with certainty FTM BESS sites that could be selected by PG&E in the future. In addition, energy storage and other distributed energy resources (DER) technologies (e.g., demand response and energy efficiency) are expected to advance within this timeframe. These technological changes are likely to alter siting requirements. Because site-specific analyses are speculative at this time, this DEIR uses the illustrative sites to demonstrate the feasibility of this alternative, and the relatively small footprint these facilities would occupy throughout the project area.

Source: NEET West and PG&E 2017.

Figure 3-16
Front-of-the-Meter Battery Storage Sites - Overview Map

N

0 250 500 1,000 Feet

Potential Front-of-the-Meter Battery Storage Locations (FTM)

Existing Infrastructure

Existing Substations

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

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Table 3-17. Example Front-of-the-Meter Battery Storage Sites

Site ID	Location Description	Assessor's Parcel No. (APN)	Ownership	Land Use Designation	Parcel or Site Size (Acres)
#1	Immediately adjacent to Paso Robles Substation.	0[1]	Unknown[1]	None	0.56
#2	Within the shopping center located southwest of the intersection of Niblick Road and River Road. Approx. 0.2 mile southwest of Paso Robles Substation.	009-814-050	Woodland Plaza II	Regional Commercial	0.87
#3	Along South River Road south of Serenade Drive on the easterly side of the street. Approx. 0.4 mile south of Paso Robles Substation.	009-769-042	Land Shak Holdings, LLC	Residential	1.82
#4	Within Paso Robles High School adjacent to the baseball field. Approx. 0.5 mile northeast of Paso Robles Substation.	009-611-045	Paso Robles Joint Unified School District	Residential	0.85
#5	On the north side of Satellite Drive adjacent to the CAL FIRE Air Attack Base, which is next to the Paso Robles Municipal Airport runway. Approx. 5 miles northeast of Paso Robles Substation.	025-450-001	City of Paso Robles	Public Facilities	2.23
#6	Adjacent to the existing Templeton Substation, on the southerly side of El Pomar Drive.	034-012-006	Terra Linda Ranchos South	County Other	10.0
#7	Immediately adjacent to the existing Atascadero Substation.	054-151-029	Pacific Gas & Electric Company	Public Facilities	1.56[3]
#8	Within or immediately adjacent to the existing San Miguel Substation.	027-271-004	Pacific Gas & Electric Company	Residential Suburban	2.54[4]

Notes:

1. This piece of land, which is located immediately adjacent to Paso Robles Substation to the east, does not have an APN. Ownership of the land is unknown, although if the land is within the road right-of-way, it could be under the control of the City of Paso Robles.
2. The existing Atascadero Substation occupies a portion of the parcel (on the northern corner). The remainder of the parcel is vacant.
3. The total size of the parcel is 1.56 acres. However, approximately 0.74 acre is occupied by the existing Atascadero Substation, leaving approximately 0.82 acre available for storage facilities.
4. The total size of the parcel is 2.54 acres. However, approximately 1.06 acre is occupied by the existing San Miguel Substation. BESS facilities could potentially fit within the footprint of the existing substation or be installed on the remaining 1.48-acre undeveloped portion of the site.

Source: NEET West and PG&E 2017.

Figure 3-17
Front-of-the-Meter
Battery Storage Site #1

Horizon WATER and ENVIRONMENT

Estrella Substation and
Paso Robles Area Reinforcement Project

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Source: NEET West and PG&E 2017.

N

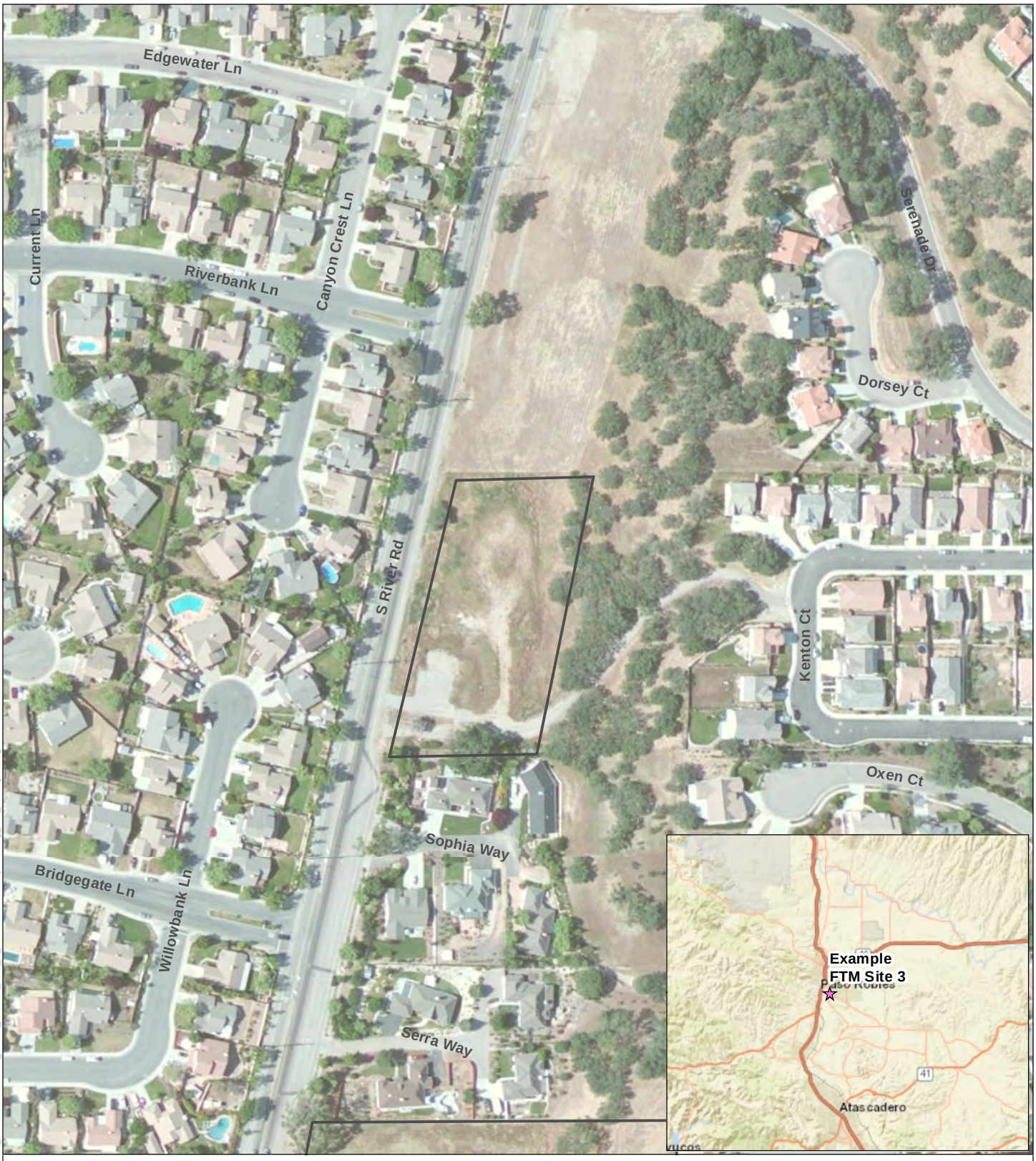
0 100 200
Feet

Parcel or Site Boundary

Figure 3-18
Front-of-the-Meter
Battery Storage Site #2

Horizon WATER and ENVIRONMENT

Estrella Substation and
Paso Robles Area Reinforcement Project



Source: NEET West and PG&E 2017.

N

0 100 200
Feet

Parcel or Site Boundary

Figure 3-19
Front-of-the-Meter
Battery Storage Site #3

Horizon
WATER and ENVIRONMENT

Estrella Substation and
Paso Robles Area Reinforcement Project

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Source: NEET West and PG&E 2017.

N

0 100 200
Feet

Parcel or Site Boundary

Figure 3-20
Front-of-the-Meter
Battery Storage Site #4

Horizon
WATER and ENVIRONMENT

Estrella Substation and
Paso Robles Area Reinforcement Project

Source: NEET West and PG&E 2017.

N

0 100 200
Feet

Parcel or Site Boundary

Figure 3-21
Front-of-the-Meter
Battery Storage Site #5

Horizon
WATER and ENVIRONMENT

Estrella Substation and
Paso Robles Area Reinforcement Project

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Source: NEET West and PG&E 2017.

N

0 100 200
Feet

Parcel or Site Boundary

Existing Substations

Figure 3-22
Front-of-the-Meter Battery Storage Site #6

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

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Source: NEET West and PG&E 2017.

N

0 100 200

Feet

Parcel or Site Boundary

Existing Substations

Figure 3-23

Front-of-the-Meter

Battery Storage Site #7

Horizon WATER and ENVIRONMENT

Estrella Substation and

Paso Robles Area Reinforcement Project

T:_PROJECTS\17010_CPUC_Estrella_Task_3_EIR\mxd\EIR\Chapter 3\Fig_3-X_BatteryStorage.mxd 5/14/2020 PG

Source: NEET West and PG&E 2017.

N

0 100 200

Feet

Parcel or Site Boundary

Existing Substations

Figure 3-24

Front-of-the-Meter Battery Storage Site #8

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

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Battery Energy Storage System Size and Energy Amount

BESS size (megawatt [MW]) and energy amount (megawatt-hour [MWh]) at any given site would be practically limited by the space requirements of the BESS facilities, which would depend on BESS technology (see discussion below) and the space available at the site. Another limiting factor could be the hosting capacity of the distribution feeder that the BESS would connect into, although feeder or distribution bank upgrades may be possible to accommodate BESS interconnections. As discussed above, the BESS size and energy amount ultimately selected for implementation at any given site or at multiple sites also would depend on the realized or projected load growth and the amount of additional distribution capacity that is reasonably needed to accommodate such growth.

For the purposes of this DEIR, the analysis considers that the entire undeveloped portions of identified FTM sites (see Figure 3-17 to Figure 3-24) would be impacted in developing BESSs under Alternative BS-2. Example BESS configurations that could fit on the identified sites are provided in Table 3-18 for informational purposes.

Table 3-18. Example Maximum Battery Energy Storage System Size, Storage Amount, and Footprint by Site

FTM Site ID	Likely System Interconnection[1]	BESS Technology[2]	BESS Characteristics		
			Size (MW)	Energy Amount (MWh)[3]	Footprint (acres)
#1	Direct – Paso Robles Substation	Lithium Ion	35	140	0.51
#2	Paso Robles Feeder 1103	Lithium Ion	55	220	0.78
#3	Paso Robles Feeder 1106	Lithium Ion	120	480	1.69
#4	Paso Robles Feeder 1108	Lithium Ion	55	220	0.78
#5	Paso Robles Feeder 1107	Lithium Ion	3.2[4]	12.8[4]	0.08[4]
#6	Direct – Templeton Substation	Lithium Ion	600	2400	8.43
		Flow Battery	50	400	9.1
#7	Direct – Atascadero Substation	Lithium Ion	55	220	0.78
#8	Direct – San Miguel Substation	Lithium Ion	100	400	1.41

Notes: MW = megawatt; MWh = megawatt-hour

1. A direct connection to a substation could connect to a distribution bank or any of the individual feeders served through the substation.
2. Lithium ion BESS size and footprint estimates based on 2019 Tesla Megapack specifications. These estimates assumed that augmentation would be required (i.e., buildout of additional BESS units as batteries degrade over time). Flow battery size and footprint estimates based on information provided by Sumitomo Electric Industries, Ltd.
3. Assumed 4-hour BESS duration (except for flow battery). Longer duration batteries could be utilized depending on future load growth/load curve characteristics.

4. The BESS at FTM Site #5 would be matched to the size/output of the planned solar facility (3.2 MW) adjacent to this site.

5. This table reflects maximum BESS sizing for the example FTM sites. Example site selection and BESS sizing were initially determined with respect to meeting both the transmission and distribution needs. A BESS solution for the larger transmission need was screened out from full analysis in the DEIR (see Section 3.4). BESS sizing for the distribution need alone would be substantially smaller.

As shown in Table 3-18, the example FTM sites could accommodate relatively large BESS installations in MW/MWh terms. The size of the BESS required would be dictated by the grid capacity needs PG&E identifies pursuant to their annual Grid Needs Assessment and Distribution Deferral Opportunity Report filing to the Distribution Resources Plan proceeding (R.14-08-013) or its successor proceeding. In PG&E's 2018 and 2019 filings, the distribution capacity requirements identified ranged from 3.4 MW to 5.9 MW (CPUC 2020). In their 2020 filing, however, PG&E indicated that the distribution capacity need no longer exists within the 10-year planning horizon (PG&E 2020a). In a data response to Energy Division, PG&E clarified that it remains reasonably foreseeable that the distribution components could be needed at the proposed Estrella Substation within fifteen years (PG&E 2020b).[1] As of 2019, PG&E expected the distribution components to cost $18.5 million (CPUC 2020), which does not include the ultimate buildout of the distribution facilities as identified in Figure 2-18 of Chapter 2, *Project Description*.

Battery Energy Storage System Technology

Lithium-ion BESSs are the most space-efficient and cost-effective technology currently on the market. Therefore, it was generally assumed that BESSs installed under Alternative BS-2 would be lithium-ion models, particularly at sites with limited space available, such as those within the City of Paso Robles (e.g., FTM Sites #1-4). A lithium-ion BESS example within an enclosed building is shown in Figure 3-25. However, lithium-ion BESSs also have downsides, such as potentially elevated fire hazard risk in comparison to other technologies.

In addition to lithium-ion, the CPUC considered redox flow battery technology (see Table 3-18). Redox flow batteries are batteries in which energy storage in electrolyte tanks is separated from power generation in stacks. The stacks consist of positive and negative electrode compartments divided by a separator or an ion exchange membrane through which ions pass to complete the electrochemical reactions (Mongird et al. 2019). While redox flow batteries are in the relatively early stages of commercialization, they offer potential advantages, such as long lifecycles, low temperature ranges for operation, and easy scalability (Mongird et al. 2019). Redox flow batteries may have reduced fire risk compared to lithium-ion batteries, but they require the use of liquid electrolyte with high concentrations of acid. The acid is required to dissolve media in the liquid electrolyte. Containment is required around the base of the installations.

[1] PG&E also identified reliability benefits in addition to the capacity needs to be met by the proposed distribution facilities in their annual, 2019 filings to proceeding R.14-08-013. The Administrative Law Judge considered the capacity need to be the primary concern, in part, because even the proposed distribution components could not fully address the reliability issues identified. The reliability benefits were not identified in PG&E's 2018 filings to the proceeding (CPUC 2020).

Redox flow batteries are expected to be more expensive on a per kW/h basis than lithium-ion batteries and also require a significantly larger footprint. Thus, for the Proposed Project under Alternative BS-2, this technology would be best suited to the Templeton Substation location (i.e., FTM Site #6), where there is ample space available. Sumitomo Electric Industries, Ltd. (Sumitomo) provided details to the CPUC about potential redox flow battery designs under Alternative BS-2 (Okuda, pers. comm., 2019). Sumitomo provided a conceptual drawing for a 50 MW/400 MWh (i.e., 8-hour) a vanadium redox flow battery system, which is shown in Figure 3-26. Sumitomo estimated that such a facility would occupy about 7.3 acres. Assuming an additional 25 percent space requirement for ancillary equipment tie-ins and driveway, this would come out to 9.1 acres.

According to Peter Klauer, California Independent System Operator Senior Advisor on Smart Grid Technology, flow batteries have features that could make bulk system electricity storage more cost efficient. In a flow battery, electrolytes are stored in tanks separate from the battery cells, which allows the battery to be scaled easily by simply increasing the size of the electrolyte tanks. The electrolyte solutions in flow batteries can have long lifetimes without major degradation, and the cycle life of flow batteries can be higher than for other battery technologies, reducing the costs of installing and operating the flow battery (San Diego Gas & Electric Company 2019).[2]

Battery Energy Storage System Components and Ancillary Site Features

Lithium-ion BESSs would typically include battery power packs, a control building, step up transformer, switchgear, heating, ventilation, and air conditioning units, and site development features, such as a driveway, stormwater management features, and fencing. It is generally assumed that 25 percent of the space at any given BESS site would be used for site development features. Particularly in areas that are developed (e.g., residential or commercial uses), lithium-ion BESSs may be enclosed in a building structure, which would serve to limit the aesthetic impact. A conceptual rendering of a lithium-ion BESS facility enclosed in a building is shown in Figure 3-25.

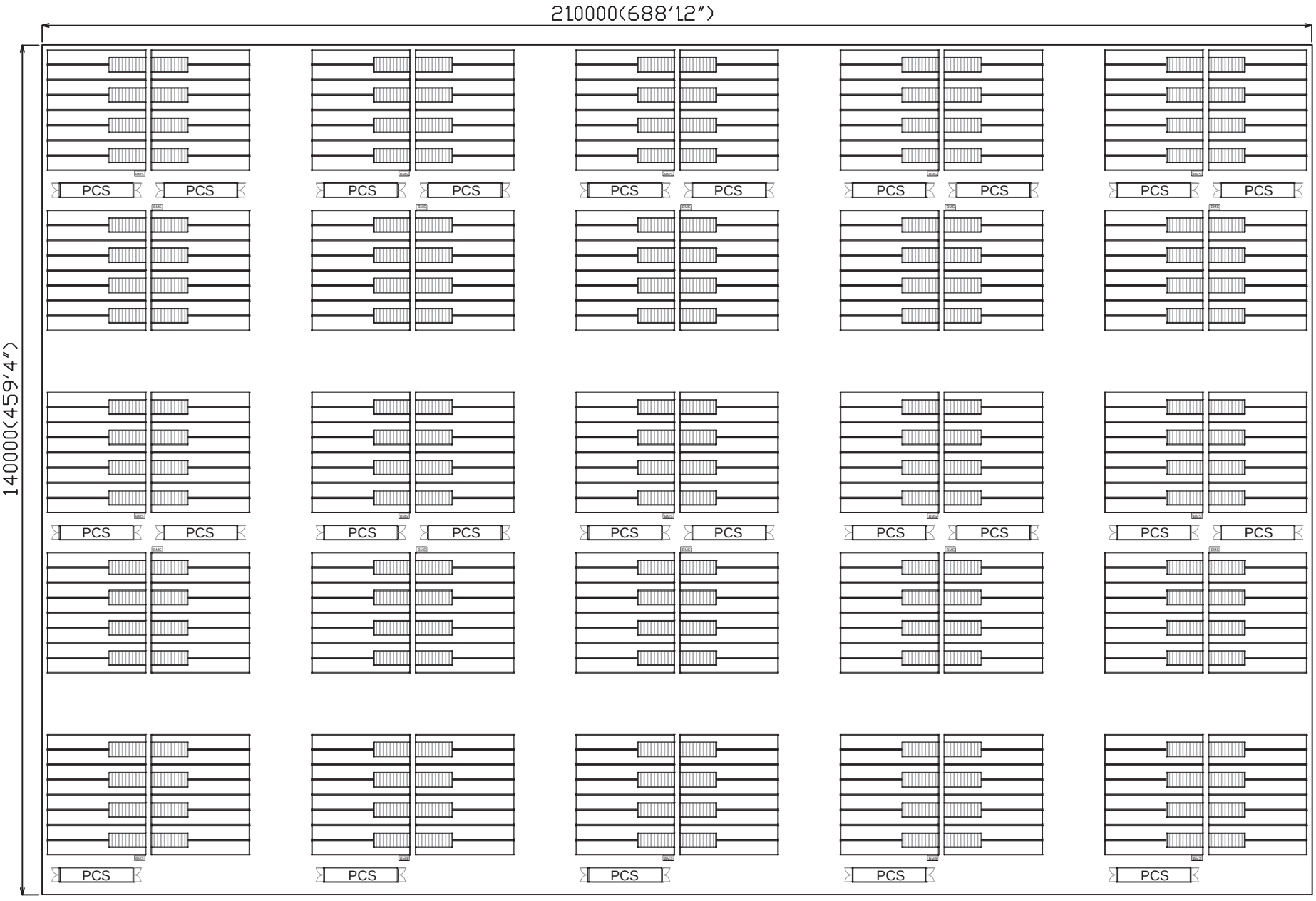
[2] For further information, refer to the details about a pilot installation by San Diego Gas and Electric Company that was integrated into the California Independent System Operator market in 2019 at https://sdgenews.com/article/innovative-battery-storage-technology-connected-california-grid.

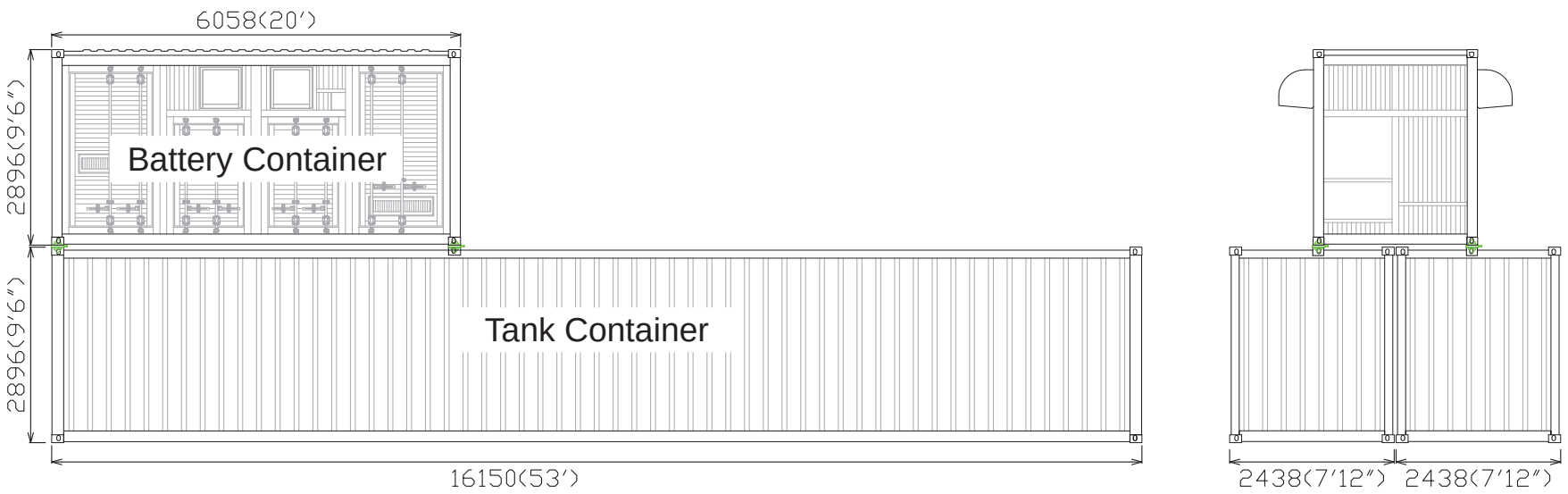
Figure 3-25.Example Energy Storage Facility Enclosed in Building

Notes: Example 10 MW/40 MWh 4-hour battery; 4,225 sq. ft. building on 0.37 acre lot; All distribution line connections are underground; Unspecified lot location in Any Town, USA

Source: Itani, pers. comm., 2018

Flow BESSs would generally be comprised of stacked containers (tank containers below and battery containers above) (see Figure 3-26), which would measure up to roughly 20 feet tall when stacked two containers high. The tank containers would measure 53 feet long by 12 feet wide. At the end of each container array would be a power conditioning system, as well as a battery management system. Depending on the size (MW) and storage amount (MWh) of the flow BESS, there may be more or less container arrays. Flow BESSs would be expected to include the same site development features (e.g., driveway, stormwater management facilities, fencing, etc.) as lithium-ion BESSs, and the same 25 percent space requirement assumption would apply. Due to the large footprint of flow BESSs, it would not be practicable to enclose them within a building.





PCS = Power Conditioning System
BMS = Battery Management System

Source: Sumitomo 2019

Figure 3-26. Redox Flow Battery Conceptual Drawing – 50 Megawatts X 8 Hours

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Construction, Operation, and Maintenance

Depending on the specific site, construction of FTM BESSs may involve vegetation removal, grading, construction of a concrete slab or foundation for the BESS facilities, delivery and installation of BESSs, and construction/installation of appurtenant facilities. BESSs also would need to be connected to the distribution system or substation, which may require wiring work and some reconductoring. Construction activities may require use of heavy construction equipment and would involve truck trips for delivery of materials and vehicle trips from workers traveling to and from the site(s).

Once installed, BESS facilities would likely require minimal operation and maintenance. Control systems would be set up at the time of installation which would control the BESSs behavior (e.g., charging/discharging) in relation to grid loading, etc., or the BESSs may be operated remotely. BESSs may require minor adjustments and servicing from time to time, which would typically involve one or two workers traveling to the site and conducting maintenance or repairs. At the end of their usable life, BESSs would need to be recycled (if possible) or disposed of. Because BESSs contain hazardous materials, this could require transport of the BESS materials to a hazardous waste landfill.

Potential for Third-Party Procurement

While it is possible for PG&E to implement Alternative BS-2, it is also possible that the distribution need could be met by PG&E competitors that design and install battery storage or other DERs (e.g., solar or energy efficiency) as part of the CPUC's Distribution Infrastructure Deferral Framework (DIDF) pursuant to the Distribution Resources Plan proceeding (R.14-08-013) or its successor proceeding. The third-party providers would handle all design, siting, and local permitting requirements.

The DIDF procurement process for DER alternatives to traditional infrastructure investments, such as the proposed Estrella Substation, is the same for both FTM and BTM DER solutions. It is possible that, as an outcome to the Estrella proceeding (A.17-01-023), the CPUC could require PG&E to seek a DER solution via the DIDF. The DIDF procurement process is further described under Alternative BS-3, below.

For the purposes of this CEQA analysis, potential FTM BESS sites were evaluated with the assumption that PG&E would construct and operate the DER solution rather than relying on a contractual relationship with a third-party DER provider to address the reasonably foreseeable distribution need. These are representative sites for CEQA analysis purposes. It is not possible to predict with certainty where PG&E may site a DER solution within the next 15 years should the distribution need occur. Similarly, it is not possible to predict where a third-party DER provider may choose to install a DER solution or to predict the technology that the DER provider may offer. The cost-effectiveness of various DER solutions is likely to change within the next 15 years as the technologies advance. A full analysis of hypothetical DIDF outcomes and types of DER solutions would be speculative and outside the scope of this CEQA analysis.

3.3.8 Alternative BS-3: Third-Party, Behind-the-Meter Solar and Battery Storage

Description

BTM solar and battery storage (i.e., "BTM resources") adoption also could reduce loading on circuits within the Paso Robles DPA, and thereby avoid potential future forecasted substation overloads. BTM resources would be metered at the building-level, and could be owned and/or operated by either the building owner or a third party provider.

Based on modeling performed by the EIR team, there is significant potential for BTM storage adoption in the Paso Robles DPA as a whole and on Paso Robles feeders specifically. Table 3-19 shows summary results from the BTM Solar plus Storage Adoption Propensity Analysis Report (BTM Report) (Kevala2020).

Table 3-19. Summary Results for the BTM Adoption Propensity Analysis – All Customer Types in the Paso Robles DPA

Scenario	BTM Adoption Propensity			
	Solar (MW)	Battery Storage (MW)	Battery Storage (MWh)	Total # of Customers
Low	88	125	240	~17,000
Medium	92	138	272	~19,000
High	100	175	343	~21,000

As shown in Table 3-19, under the low scenario, roughly 17,000 customers (residential and commercial and industrial [C&I]) meet the criteria for economically-efficient adoption. If all of these customers adopted BTM solar and/or storage technology at the parameters used in the study, this would equate to 88 MW of solar and 125 MW / 240 MWh of storage (CPUC 2020). Under the high scenario, approximately 21,000 economically-efficient potential adopters were identified, equating to 100 MW of solar and 175 MW / 343 MWh of storage.

For Paso Robles feeders specifically, Table 3-20 shows that there is relatively substantial BTM adoption potential for customers along feeders in target areas for future distribution service from the Estrella Substation.

Table 3-20. BTM Storage Adoption Propensity for Paso Robles Feeders – Low and High Scenarios

Feeder	Low Scenario			High Scenario		
	# of Customers	MW	MWh	# of Customers	MW	MWh
Paso Robles 1101	123	0.8	3.6	151	1.1	2.5
Paso Robles 1102	676	4.8	9.3	881	7.3	14.3
Paso Robles 1103	1,112	9.7	15.1	1,324	10.9	21.5
Paso Robles 1104	624	4.5	8.8	843	6.7	13.3
Paso Robles 1106	1,737	12.2	23.6	2,325	18.8	36.5
Paso Robles 1107	918	6.6	12.9	1,123	9.5	18.7
Paso Robles 1108	1,399	9.9	19.2	1,822	14.9	29.2
Total:	**6,589**	**48.5**	**90.6**	**8,468**	**69.2**	**136.0**

Although future load conditions would depend on where future development projects and other new load sources occur in the Paso Robles area, Table 3-20 shows that there is adoption potential along all of the feeders that connect to Paso Robles Substation. In particular, Paso Robles Feeder 1107, which passes through two of the anticipated growth areas in Golden Hill Industrial Park and near the Paso Robles Airport, has potential for BTM storage adoption of 9.5 MW / 18.7 MWh under the high scenario. Similarly, Paso Robles Feeder 1102 also passes through the Golden Hill Road area and has potential for adoption of 7.3 MW / 14.3 MWh of BTM storage under the high scenario.

The ASR and BTM Report describe in detail the potential for BTM resources adoption to meet the Distribution Objective of the Proposed Project. Essentially, only a portion of the total BTM resources adoption potential would need to be realized to meet the likely capacity needs in the Paso Robles DPA, although in some cases BTM resources alone could not solve all specific capacity needs (e.g., San Miguel Bank 1) identified in PG&E's 2019 Distribution Deferral Opportunities Report. Thus, FTM storage may need to be implemented in tandem.

Customer Incentive Program, Outreach, and Marketing

It is anticipated that BTM resources installed as an alternative to the Proposed Project would be procured under the CPUC's DIDF pursuant to the Distribution Resources Plan proceeding (R.14-08-013) or its successor proceeding. Either a Request for Offers (RFO) process or use of a deferral tariff could be implemented for procurement. The DIDF RFO process is well established, having occurred in January 2019 and January 2020.[3] The deferral tariff process is new and may be available as an alternative to the RFO process as early as August 2021.[4]

To maximize potential BTM resources adoption, Alternative BS-3 assumes that a targeted outreach and marketing program would occur to provide education and incentives to encourage DER adoption in the Paso Robles DPA. This would occur as part of the RFO or deferral tariff DER procurement process. The program would be led by DER providers selected to provide aggregations of DERs, and marketing would be supported by the investor owned utilities as determined by contractual arrangements between PG&E and selected DER providers.

The DIDF is technology neutral but, for the purposes of this CEQA analysis, solar and battery storage DERs were assumed. Other types of DERs could also be procured, such as energy efficiency and demand response. To date, only FTM battery storage offers have been procured via the DIDF. The cost-effectiveness of various DER solutions is expected to change as technologies advance within the need timeframe for the reasonably foreseeable distribution components (5-15 years).

BTM Sites and Facilities

Because it is unknown which specific customers will opt into the BTM resources program and install BTM resources on their property, the specific locations of activities under Alternative BS-3 are unknown. In general, BESSs would be anticipated to be installed within existing commercial and industrial buildings, and within existing residential homes or apartment complexes.

Construction, Operation, and Maintenance

Construction activities under Alternative BS-3 would include deliveries of individual BTM solar and/or storage units to customers' properties, installation of the units on-site, and wiring work to connect the BTM resources to existing electrical systems. In general, it is assumed that minimal ground disturbance would be required since BTM solar and storage facilities would be installed primarily on and within existing buildings; however, it is possible that at some locations building owners may choose to install the BTM facilities on previously undeveloped portions of their property. In this case, some vegetation clearing, light grading, and minor excavation is

[3] For 2019 DIDF RFO details, see https://www.pge.com/pge_global/common/pdfs/for-our-business-partners/energy-supply/electric-rfo/wholesale-electric-power-procurement/2019%20DIDF%20RFO/DIDF_Solicitation_Protocol_Final5.pdf. For 2020 DIDF RFO details, see https://www.pge.com/en_US/for-our-business-partners/energy-supply/electric-rfo/wholesale-electric-power-procurement/2020-didf-rfo.page?ctx=large-business.

[4] For further RFO and deferral tariff details, refer to the California Public Utilities Commission Energy Division Staff Proposal: Distributed Energy Resources Deferral Tariff and Request for Offer Streamlining, October 5, 2020, at https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M348/K078/348078433.PDF.

possible; a concrete slab may be installed to support the BTM solar and/or storage facilities or a small enclosed building with a foundation may be constructed to house the storage facilities.

Once installed, BTM storage facilities would require minimal operation and maintenance. Control systems would be set up at the time of installation which would control the BTM storage systems' behavior (e.g., charging/discharging) in relation to building energy usage, photovoltaic energy production, grid pricing, etc. BTM storage systems may require minor adjustments and servicing from time to time, which would typically involve one or two workers traveling to the site and conducting maintenance/repairs. At the end of their usable life, BTM BESSs would need to be recycled (if possible) or disposed of; because BESSs contain hazardous materials, this may require transport of the BESS materials to a hazardous waste landfill.

3.4 Project Alternatives Screened Out from Full Analysis in the DEIR

This section discusses briefly the alternatives that were considered but dismissed (screened out) from detailed analysis in the DEIR. Refer to the ASR for detailed discussion of the alternatives screening process conducted for the Proposed Project.

3.4.1 Alternative SS-2: Mill Road West Substation Site

The Mill Road West Substation Site is an alternative site that was considered for the proposed substation. This site is situated on an approximately 42-acre parcel located approximately 0.5 mile east of the proposed Estrella Substation site and Union Road (see Figure 3-1). The 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 site is currently used to grow wine grapes. Adjacent land uses include primarily vineyards and associated wine processing facilities and wine tasting venues. Scattered residences are also present in the area.

The Mill Road West Substation Site was screened out from full analysis in the DEIR due to its inability to avoid or substantially reduce one or more of the significant effects of the Proposed Project. Specifically, locating the substation on this site would not substantially reduce the agricultural resources or aesthetic effects of the Proposed Project. The site is on existing vineyard designated as Farmland of Statewide Importance and Unique Farmland, and a substation on this site would likely still be visible by sensitive receptors in the area.

3.4.2 Alternative PLR-1B: Estrella Route to Mill Road West

Alternative PLR-1B is a 70 kV power line route that was considered for connecting a substation at the Mill Road West Substation Site (Alternative SS-2) to the Paso Robles Substation. This route would be very similar to the other Estrella Route variations (e.g., Alternatives PLR-1A and -1C) but would have a different starting point at the Mill Road West site (refer to Figure 3-1). Starting at the Mill Road West site, the route would follow the existing 230/500 kV transmission corridor northeast, across a riparian/drainage area near the Treasury Wine Estates, before veering west, crossing back over the riparian/drainage area, and then joining the Alternative PLR-1A/-1C route that zig zags northwest through agricultural lands towards

Wellsona Road. The remainder of the Alternative PLR-1B route would be identical to Alternatives PLR-1A and -1C.

Alternative PLR-1B: Estrella Route to Mill Road West was screened out from full analysis in the EIR because it would only be used with Alternative SS-2: Mill Road West Substation Site, which was itself screened out from full analysis (see discussion under Section 3.4.1).

3.4.3 Alternative PLR-1D: Estrella Route to Bonel Ranch, Option 2

Alternative PLR-1D is another 70 kV route (in addition to Alternative PLR-1C) that was considered for connecting a substation at the Bonel Ranch Substation Site (Alternative SS-1) to the Paso Robles Substation. As shown on Figure 3-1, starting at the Bonel Ranch site, the Alternative PLR-1D route would follow Estrella Road west/northwest before cutting down and joining an existing distribution line that traverses agricultural land in a northwest direction. Alternative PLR-1D ultimately crosses the Estrella River twice before joining Wellsona Road and the remainder of the Alternative PLR-1A, -1B, and -1C alignment down to Paso Robles Substation.

This alternative was screened out from full analysis in the EIR due to potential feasibility issues associated with lack of access for construction and maintenance activities. PG&E reported that the Alternative PLR-1D alignment had difficult access or no existing access roads along a majority of the route. PG&E indicated that, if a double-circuit 70 kV transmission line were constructed along this route, maintenance would be difficult during the wet season, with access potentially limited to by foot or helicopter. Overall, the access/feasibility issues described by PG&E led the CPUC to screen out this alternative.

3.4.4 Alternative PLR-2: Creston Route

The Creston Route is an alternative 70 kV power line route that was considered for connecting the proposed Estrella Substation (or a substation located at an alternative site) to the Paso Robles Substation. As shown on Figure 3-1, the route would generally follow the existing 230/500 kV transmission corridor southwest to roughly the intersection with Creston Road. At this point, the route would veer to the northwest and follow Creston, then Charolais Road, and then South River Road before meeting the Paso Robles Substation. Land use within the portion of the Creston Route following the 230/500 kV transmission corridor is primarily agricultural and rural residential, while the land use along the portion of the route that follows Creston Road, Charolais Road, and then South River Road varies from rural residential to urban development.

The Creston Route was screened out from full analysis in the DEIR because it had potential engineering feasibility constraints with existing utilities and it would not avoid or substantially reduce any of the Proposed Project's significant effects. Specifically, it would not substantially reduce agricultural resources impacts and would have similar aesthetics impacts compared to the Proposed Project.

3.4.5 Alternative SE-1B: Templeton Substation Expansion – 70 kV Substation Only

Alternative SE-1B would be similar to Alternative SE-1A; however, only the 70 kV portion of the new substation described under Alternative SE-1A would be built. The 230 kV facilities shown in Figure 3-12 and Figure 3-13 would not be included and no interconnection to the existing 230 kV transmission line would be required. It was assumed that only half of the staging area required for construction of Alternative SE-1A would be needed to support construction of the 70 kV substation. Alternative SE-1B was conceived of by the CPUC in acknowledgement that correcting the P6 (N-1-1) contingency identified for the Proposed Project, which involves loss of both 230 kV transmission lines connecting to Templeton Substation, is not required per the CAISO standards (i.e., dropping of non-consequential load is permissible in this situation). As such, it was thought that this alternative could reduce the permanent and temporary disturbance associated with Alternative SE-1A, while still addressing the P1 (N-1) contingencies for the Proposed Project.

This alternative was screened out from full analysis in the DEIR because it was determined that it could not feasibly meet the Transmission Objective of the Proposed Project. This was due to the fact that eliminating the 230 kV portion of the new substation would lead to vulnerabilities to the P1 (N-1) contingency involving loss of the existing 230/70 kV transformer at the Templeton Substation. Adding another 230/70 kV transformer and 230 kV loop-in could not be accomplished within the existing Templeton Substation footprint or within the new 70 kV substation.

3.4.6 Alternative SE-PLR-1: Templeton-Paso 70 kV Route (Existing)

Alternative SE-PLR-1 was one of the routes considered for the new circuit connecting the Templeton Substation to the Paso Robles Substation, to be used with Alternative SE-1A (or SE-1B, if it were feasible). This alternative would involve rebuilding the existing 70 kV single-circuit power line that runs from Templeton Substation to Paso Robles Substation and converting it into a double-circuit power line. As shown on Figure 3-1, starting at the Paso Robles Substation, the existing Templeton-Paso 70 kV route extends southerly along South River Road for approximately 0.7 mile to the intersection of South River Road and Charolais Road. The route then continues southerly along South River Road for approximately 0.5-mile. The route then leaves South River Road and continues south generally following Santa Ysabel Avenue for approximately 0.5-mile at which point the route continues south on private property for approximately 3 miles to the Templeton tap point.

This alternative was screened out from full analysis in the DEIR because it was determined to be infeasible based on the requirement to expand the existing Paso Robles Substation into a ring bus configuration and difficulty accessing and working on existing power line poles in backyards of homes along the Salinas River.

3.4.7 Alternative SE-PLR-3: Templeton-Paso Creston Route

Alternative SE-PLR-3 was another one of the routes considered for the new 70 kV circuit/power line connecting the Templeton Substation to the Paso Robles Substation, to be used with Alternative SE-1A (or SE-1B, if it were feasible). This route would be essentially similar to

Alternative PLR-2: Creston Route, but would come from the south starting at the Templeton Substation rather than the proposed Estrella Substation. As shown on Figure 3-1, the route would follow the existing 230/500 kV transmission line corridor northeasterly out of Templeton Substation for approximately 3 miles to where it intersects with Creston Road. At this point, the route veers to the northwest and follows Creston Road, then Charolais Road, and then turns north and continues along South River Road until it reaches Paso Robles Substation. Like Alternative SE-PLR-2, this alternative route would use a double-circuit power line so as to avoid the need to convert the Paso Robles Substation to a ring bus configuration.

This alternative was screened out from full analysis in the DEIR because it had potential engineering feasibility constraints with existing utilities and it would not avoid or substantially reduce any of the Proposed Project's significant effects.

3.4.8 Alternative BS-1: Battery Storage to Address the Transmission Objective

Alternative BS-1 would include installation of FTM BESSs sized to address the Transmission Objective. As discussed in Chapter 2, *Project Description,* a P1 contingency involving the loss of either the Templeton-Paso 70 kV Transmission Line or Templeton Transformer Bank #2 could put 60 MW of load being served through Paso Robles Substation at risk. FTM BESSs that are charged and ready to discharge during such a contingency could be a way to meet this load while the transmission line or transformer bank is restored. Under Alternative BS-1, FTM BESSs could be sited at the same locations identified for Alternative BS-2 (see Figure 3-16).

While FTM BESSs could solve the voltage and loading issues during a P1 and/or P6 contingency identified by CAISO for a limited period of time, they could not provide the power support needed for a long duration outage. PG&E has indicated that a transmission-level outage on its system could last multiple days (outages lasting up to 178 days have occurred). CAISO has also commented that a BESS that discharges to address one outage would need to be in an adequate state of charge to potentially address a subsequent outage. The CPUC and its consultants confirmed that during high loading conditions (e.g., summer), there may not be a charging window for BESSs to recharge during a P1 or P6 outage. In other words, cumulative loading on the Paso Robles Substation may not drop below the 20 MW that can be supplied by the northern San Miguel-Paso 70 kV Transmission Line (the only remaining power source to the substation during such a contingency), leaving no available capacity to allow for BESS recharging.

Thus, it was determined that Alternative BS-1 could not fully meet the Transmission Objective of the Proposed Project. As such, it was screened out from full analysis in the DEIR.

3.5 Characteristics and Pairing of Alternatives Carried Forward for Analysis in the DEIR

This section provides a summary of the primary characteristics of the alternatives carried forward for full analysis in the DEIR (described in Section 3.3), as well as a description of the possible pairings of alternatives that could occur. Table 3-21 provides a summary of the

pertinent information, and is intended to provide a quick comparison/summary of the key differences between the alternatives under consideration.

As noted in Section 3.3, many of the alternatives carried forward for full analysis in the DEIR would only address one aspect of the project (e.g., power line route or substation location alternative) or would only accomplish one of the two primary project objectives. As such, these alternatives would need to be paired with other alternatives, or with one aspect of the Proposed Project, in order to be "whole," and/or to address both project objectives. Table 3-22 provides a cross-walk of the ways in which alternatives could be paired in order to create complete, feasible alternatives to the Proposed Project.

Table 3-21. Characteristics of Alternatives Carried Forward for Full Analysis in the DEIR

Alternative ID	Length of 70 kV Power Line (miles)		Construction Duration (months)
	New	Reconductoring	
PP (ES)	NA	NA	7
PP (PL)	7	3	18
SS-1	NA	NA	7[1]
PLR-1A	10.5	6	34
PLR-1C	10	6	33
PLR-3	1.2	NA	12
SE-1A	NA	NA	7[1]
SE-PLR-2	5.2	NA	9
BS-2[2]	NA	NA	UNK
BS-3[3]	NA	NA	UNK

Notes: PP = Proposed Project; ES = Estrella Substation; PL = Power Line; SS = Substation Siting; PLR = Power Line Route; SE = Substation Expansion; BS = Battery Storage; NA = Not Applicable; UNK = Unknown

1. Total construction duration is 7 months (same as the proposed Estrella Substation), but construction of the 230 kV interconnection for both Alternatives SS-1 and SE-1A would take 6 months, which is one month longer than the proposed substation.
2. Specific characteristics of Alternative BS-2 are unknown, as the size of front-of-the-meter (FTM) battery energy storage systems (BESSs) would depend on future load growth. Table 3-18 provides example BESS sizes that could be accommodated on identified feasible sites; but this amount of storage would likely far exceed the future need.
3. Specific characteristics of Alternative BS-3 are unknown, as individual customers would choose whether to install behind-the-meter (BTM) solar or battery storage systems on their properties.

Table 3-22. Alternative Pairings Matrix

Alternative ID	PP (ES)	PP (PL)	SS-1	PLR-1A	PLR-1C	PLR-3	SE-1A	SE-PLR-2	BS-2	BS-3
PP (ES)		X		X		X			X	X
PP (PL)	X					X			X	X
SS-1					X				X	X
PLR-1A	X								X	X
PLR-1C			X						X	X
PLR-3	X	X							X	X
SE-1A								X	X	X
SE-PLR-2							X		X	X
BS-2	X	X	X	X	X	X	X	X		X
BS-3	X	X	X	X	X	X	X	X	X	

Notes: PP = Proposed Project; ES = Estrella Substation; PL = Power Line; SS = Substation Siting; PLR = Power Line Route; SE = Substation Expansion; BS = Battery Storage

Chapter 4
Environmental Analysis

4.0 Introduction to the Analysis

This chapter of the Draft Environmental Impact Report (DEIR) describes the environmental resources and potential environmental impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives. Sections 4.1 through 4.20 each address a different topical resource topic, in accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Each section describes the existing setting and background information for that resource topic to help the reader understand the conditions that could be affected by the Proposed Project, reasonably foreseeable distribution components, or alternatives. In addition, each section includes a discussion of the criteria used in determining the significance levels of the environmental impacts. Finally, each section recommends mitigation measures to reduce, where possible, the adverse effects of any identified significant impacts.

4.0.1 Significance of Environmental Impacts

According to CEQA, an environmental impact report (EIR) should define the threshold of significance and explain the criteria used to determine whether an impact is above or below that threshold. Significance criteria are identified for each environmental resource topic to determine whether implementation of the project would result in a significant environmental impact when evaluated against the baseline conditions, as described in the environmental setting. The significance criteria vary depending on the environmental resource topic. In general, effects can be either significant (above threshold) or less than significant (below threshold). In some cases, a significant impact will be identified as significant and unavoidable if no feasible mitigation measure(s) is/are available to reduce the impact to a less-than-significant level. If a project is subsequently adopted despite identified significant impacts that would result from the project, CEQA requires the lead agency to prepare and adopt a statement of overriding considerations describing the social, economic, and other reasons for moving forward with the project despite its significant impact(s).

As noted above, the specific significance criteria used to evaluate impacts in this DEIR are described in each topical resource section (4.1 through 4.20). These significance criteria follow those provided in Appendix G of the CEQA Guidelines.

4.0.2 Impact Terminology and Use of Language in CEQA

This DEIR uses the following terminology to describe environmental effects of the Proposed Project, reasonably foreseeable distribution components, and alternatives (with the exception of Alternatives BS-2 and BS-3; see discussion under Section 4.0.4 below):

- A finding of *no impact* is made when the analysis concludes that the Proposed Project or alternatives would not affect the particular environmental resource or issue.

- An impact is considered *less than significant* if the analysis concludes that there would be no substantial adverse change in the environment and that no mitigation is needed.
- An impact is considered *significant* if the analysis concludes that there could be a substantial adverse effect on the environment.
- An impact is considered *less than significant with mitigation* if the analysis concludes that there would be no substantial adverse change in the environment with the inclusion of the mitigation measures described.
- An impact is considered *significant and unavoidable* if the analysis concludes that there could be a substantial adverse effect on the environment and no feasible mitigation measures are available to reduce the impact to a less than significant level.
- An impact is considered *beneficial* if the analysis concludes that there would be a positive change in the environment.
- *Mitigation* refers to specific measures or activities adopted to avoid, minimize, rectify, reduce, eliminate, or compensate for significant impacts.

A cumulative impact can result when a change in the environment results from the incremental impact of a project when added to other related past, present, or reasonably foreseeable future projects. Significant cumulative impacts may result from individually minor but collectively significant projects. The cumulative impacts analysis in this DEIR (see Chapter 6, *Other Statutory Considerations and Cumulative Impacts*) focuses on whether the 'incremental contribution of the Proposed Project, reasonably foreseeable distribution components, and alternatives to other significant cumulative impacts caused by past, present, or probable future projects is cumulatively considerable (i.e., significant).

Because the term "significant" has a specific usage in evaluating impacts under CEQA, it is used only to describe the significance of impacts and is not used in other contexts within this document. Synonyms such as "substantial" have been used when not discussing the significance of an environmental impact.

4.0.3 Baseline Conditions

Under CEQA Guidelines (Section 15125), an EIR must describe the physical environmental conditions in the vicinity of the project. The environmental setting will normally constitute the "baseline" physical conditions and serves as a gauge to assess changes that will occur as a result of a proposed project. This EIR uses the existing physical conditions in and around the vicinity of the Proposed Project as those conditions exist at the time the notice of preparation (NOP) was published on July 30, 2018 (subsequently revised and recirculated on August 1, 2018) as baseline conditions. These environmental conditions are described throughout this DEIR within the "Environmental Setting" section included in each topical resource section in this chapter.

4.0.4 Analysis of Alternatives

Alternatives are analyzed throughout Chapter 4 in each topical resource section. Alternatives are analyzed at a lesser level of detail than the Proposed Project, but at a level that is sufficient

to determine and disclose any significant environmental impacts associated with the alternatives (except for Alternatives BS-2 and BS-3) and prescribe mitigation to reduce significant impacts. Because the specific characteristics of Alternatives BS-2 and BS-3 are unknown, these alternatives are evaluated for illustrative purposes in the DEIR. Consistent with CEQA Guidelines section 15145, no significance conclusions are provided for the Alternative BS-2 and BS-3 impact discussions. As described in Chapter 3, *Alternatives Description,* many alternatives could be paired with one another to create a complete alternative (e.g., power line route alternative plus substation siting alternative) or to address both project objectives. Refer to Table 3-22 in Chapter 3 for a matrix showing the potential alternative combinations.

In Sections 4.1 through 4.20, alternatives are analyzed individually while acknowledging that some alternatives comprise only one aspect of the project or accomplish only one of the project objectives. Chapter 5, *Alternatives Analysis Summary and Comparison of Alternatives,* provides a comprehensive discussion of the alternatives/alternative combinations in comparison to the Proposed Project and provides an environmental ranking for each possible alternative combination and the Proposed Project.

4.0.5 Availability of Information

The DEIR relies on information from the Proponents' Environmental Assessment (PEA) (May 2017 version) submitted by Horizon West Transmission (HWT) and Pacific Gas & Electric Company (PG&E), including technical reports and supporting documents provided in the appendices to the PEA. The DEIR also relies on information provided by HWT and PG&E through responses to deficiency letters and data requests issued by the California Public Utilities Commission (CPUC) Energy Division. Where applicable, the analysis in this DEIR cites to the PEA, applicable PEA appendices, and specific deficiency letters or data requests and provides reference information in Chapter 8, *References.* All of this information is also available through the Project website:

www.cpuc.ca.gov/environment/info/horizonh2o/estrella/index.html

Other information sources relied on for the DEIR analysis are listed in Chapter 8, *References,* and links to online material are provided where available.

4.0.6 Local Laws, Regulations, Policies, and Plans

The CPUC has sole and exclusive jurisdiction over the siting and design of the Proposed Project and alternatives, because it authorizes the construction, operation, and maintenance of investor-owned public utility facilities. CPUC General Order No. 131-D explains that local land use and zoning regulations and discretionary permitting would not apply to the Proposed Project or alternatives (i.e., these features would not require any land use approval that would involve a discretionary decision to be made by a local agency such as a planning commission, city council, or county board of supervisors). As such, the local policies and ordinances that would otherwise be relevant to the Project and alternatives are described in Appendix A for informational purposes only. General Order No. 131-D, Section XIV.B, does require that in locating a project "the public utility shall consult with local agencies regarding land use matters."

Where applicable, the impact analyses within the topical resource sections in Chapter 4 describe relevant portions of local laws, regulations, policies, or plans as they pertain to the impacts of the Proposed Project, reasonably foreseeable distribution components, and/or alternatives. Refer to Appendix A for the more detailed summary of potentially relevant local laws, regulations, policies, and plans.

4.1 Aesthetics

4.1.1 Introduction

This section describes the existing visual and aesthetic resources within the Proposed Project, reasonably foreseeable distribution components, and alternatives areas. The section also describes applicable federal and state plans and policies regarding the protection of visual and scenic resources. Local laws, regulations, policies, and plans are described in Appendix A. The potential impacts on aesthetics from construction and operation of the Proposed Project, reasonably foreseeable distribution components, and alternatives are evaluated pursuant to the significance criteria under CEQA Guidelines Appendix G.

4.1.2 Terminology Overview

Aesthetics refers to visual resources and the quality of what can be seen or perceived in the environment, including such characteristics as building scale and mass, design character, and landscaping. Key terms used in this section to describe aesthetics are defined below.

Visual character is the unique set of landscape features that combine to make a view, including native landforms, water, and vegetation patterns as well as built features such as buildings, roads, and other structures. In urban settings, the visual character is primarily influenced by the land use type and density, urban landscaping and design, topography, and background setting.

Visual quality is the intrinsic appeal of a landscape or scene due to the combination of natural and built features in the landscape. Natural and built features combine to form unique perspectives with varying degrees of visual quality, which is rated in this analysis as high, moderate, or low. A high visual quality rating is defined as visual resources that are unique or exemplary of the region's natural or cultural scenic amenities. A moderate visual quality rating is defined as visual resources typical or characteristic of the region's natural and/or cultural visual amenities. A low visual quality rating refers to areas generally lacking in natural or cultural visual resource amenities typical of the region.

Viewer concern addresses the general public's level of interest or concern of viewers regarding an area's visual resources and is closely aligned 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 cultural features. Viewer concern is generally rated as high, moderate, or low; where high viewer concern is represented by views that are appreciated frequently, for longer durations, and/or by receptors located within a short distance. In contrast, low viewer concern is characterized by views that are not regarded for intrinsic beauty and/or are not seen by many sensitive receptors, or are only seen for short durations and from long distances where views are obstructed. Viewer concern ratings take into consideration viewer activity, view duration, viewing distance, adjacent land use, and special management or planning designation.

Viewer exposure describes the degree to which viewers are exposed to views of the landscape. Viewer exposure considers landscape visibility, distance from which the landscape can be seen by viewers, number of viewers, and the duration of view.

Visual sensitivity reflects the level of interest or concern that viewers and responsible land management agencies have for a particular visual resource, taking into account visual quality, viewer concern, and viewer exposure. Visual sensitivity is a measure of how noticeable proposed changes might be in a particular setting and is determined based on the distance from a viewer, the contrast of the proposed changes, and the duration that a particular view would be available to viewers. For example, areas such as scenic vistas, parks, trails, and scenic roadways typically have a high visual quality and visual sensitivity because these locales are publicly protected, appear natural, view durations are typically long, and close-up views are more commonly available.

Key observation point (KOP) is a unique view or "observation" point from a specific location looking in a specific direction. KOPs were identified during preparation of the PEA and design process and provide typical views and/or views of high interest or concern of the Proposed Project and alternatives areas.

4.1.3 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies are applicable to aesthetics in relation to the Proposed Project, reasonably foreseeable distribution components, and alternatives.

State Laws, Regulations, and Policies

California Scenic Highway Program

In 1963, the California State Legislature established the California Scenic Highway Program, a provision of the Streets and Highways Code, to preserve and enhance the natural beauty of California (California Department of Transportation [Caltrans] 2018a). The state highway system includes designated scenic highways and those that are eligible for designation as scenic highways. According to the California Scenic Highway Mapping System, State Route (SR) 46 and the segment of Highway 101 south of SR 46 are eligible for listing as state scenic highways, though they are not officially designated as such (Caltrans 2018b).

4.1.4 Environmental Setting

Regional Setting

The Proposed Project, reasonably foreseeable distribution components, and alternatives are located from 25 to 35 miles east of the Pacific Ocean in an area that is between the Temblor Range and the Santa Lucia Coastal Range, at the southern end of the Salinas River Valley. The topography in this area ranges from flat to gently sloping rolling hills, with some steep slopes (up to 960 feet in elevation) occurring along roadsides. The Proposed Project, reasonably foreseeable distribution components, and alternatives are located in both unincorporated San Luis Obispo County (County) and the City of Paso Robles (City). These areas of the

unincorporated County are dominated by agricultural uses, mainly vineyards. Areas of the City within which the Proposed Project, reasonably foreseeable distribution components, and alternatives would be located consist of varied land uses including residential, commercial, and light industrial uses.

Natural features in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives include the Salinas River, Huer Huero Creek, and Estrella River. The Salinas River runs north along Highway 101 and would be adjacent to the Proposed Project's 70 kilovolt (kV) power line reconductoring segment (the river also would run parallel to the 70 kV reconductoring segments under Alternatives PLR-1A and PLR-1C). Huer Huero Creek runs northwesterly through the Proposed Project area and generally parallels the Proposed Project's new 70 kV power line segment for about 3 miles. The Estrella River runs north of Alternative SS-1 and abuts portions of Alternative PLR-1C Minor Route Variation 1. The visual character of the Proposed Project, reasonably foreseeable distribution components, and alternatives areas is defined by these varied landscapes, which include vineyards, agriculture, open space, and urban elements.

Existing Visual Character and Views

Proposed Project

The proposed Estrella Substation site occupies an approximately 15-acre area to the north of Union Road. The substation site and surrounding land is characterized by rolling hills occupied by vineyards with wineries, existing 500 kV and 230 kV transmission towers, distribution poles, and a few interspersed single-family residences. Figure 4.1-1 shows the location of KOPs in the Proposed Project, reasonably foreseeable distribution components, and alternatives areas. Subsequent figures show each KOP, along with visual simulations of Proposed Project features, where available. KOPs 1 (Figure 4.1-2) and 2 (Figure 4.1-3) show representative views of the substation site from Union Road (looking from both eastern and western ends of the site).

From the substation site, the new 70 kV power line alignment runs west, generally parallel to Union Road and follows existing transmission lines. Portions of the new 70 kV power line in this area also would traverse privately-owned land occupied by vineyards and a residence, and would cross Huer Huero Creek. After crossing Huer Huero Creek, the new 70 kV power line would closely follow Union Road for roughly 1.3 mile before meeting the junction with SR 46. This section of the new 70 kV power line would pass by Barney Schwartz Park and the Paso Robles Sports Club, which are located just off of Union Road. KOP 3 (Figure 4.1-4) shows a view of the proposed alignment from Union Road in front of Barney Schwartz Park and is representative of recreationists' views upon entering the park. KOP 4 (Figure 4.1-5) shows a more distant view looking northeast toward the proposed alignment along Union from a ramada within Barney Schwartz Park. This KOP provides a representative view of the existing landscape from within the park looking toward the proposed 70 kV power line.

As noted above, the Proposed Project's 70 kV power line alignment follows Union Road to the junction with SR 46, at which point the 70 kV line crosses over SR 46 in a northerly direct, before passing through an industrial business district (i.e., Golden Hill Industrial Park). This area is relatively flat and characterized by existing industrial uses and structures. KOP 5 (Figure 4.1-6) shows a public view from SR 46 facing west toward the point at which the new power line would cross the highway. From Golden Hill Road at the northern end of the business district, the

proposed 70 kV alignment continues north where Golden Hill Road turns into a private lane used for residential access. The Circle B Homeowners Association is located in this area. KOP 6 (Figure 4.1-7) shows a public view of Golden Hill Road looking north from just north of the San Antonio Winery. North of Lake Place, the alignment turns west and then joins and continues along Buena Vista Drive until ultimately reaching River Road. The landscape in this area is characterized by gently rolling hills, vineyards, pastures, and residential development. The proposed 70 kV alignment is visible in the foreground along Golden Hill Road and Buena Vista Drive, as well as from private lanes and nearby residences. KOP 7 (Figure 4.1-8) provides a representative view of the landscape near where the new 70 kV power line would connect with the existing line on River Road.

The Proposed Project's approximately 3-mile 70 kV reconductoring segment along River Road follows an established utility corridor. The landscape in this area is characterized by steep hills, native and ornamental vegetation, existing distribution lines, and residential neighborhoods. Close-up views of the reconductoring segment would be available from River Road, the crossing at SR 46, Riverglen Drive and the surrounding neighborhood, and many nearby residences. KOP 8 (Figure 4.1-9) provides a representative view of the reconductoring segment from Clubhouse Drive, near North River Road. Approximately 0.5 mile south of the SR 46 crossing, the existing 70 kV power line (to be reconductored) enters a residential neighborhood and follows Riverglen Drive for approximately 0.25 mile. KOP 9 (Figure 4.1-10) shows a representative view of the reconductoring segment from Riverglen Drive. The existing line then crosses Union Road, continues south for approximately 1 mile (generally along hilltops above River Road) and then crosses open pastures and the backside of neighborhoods until it ends at the Paso Robles Substation.

Reasonably Foreseeable Distribution Components

The reasonably foreseeable distribution components would be installed primarily in rural, agricultural areas and within existing road rights-of-way. The reasonably foreseeable southern distribution line segment would pass through agricultural fields following an existing dirt road north from Estrella Substation. Existing visual conditions in this area are similar to those for the proposed Estrella Substation site (i.e., scenic rolling hills occupied by vineyards), which are shown in KOP 1 (Figure 4.1-2) and KOP 2 (Figure 4.1-3). The reasonably foreseeable northern distribution line segment would follow the existing SR 46 right-of-way (installed within the median). This area of SR 46 passes through open space and by Hunter Ranch Golf Course. Visual conditions are scenic and rural. Although not in the same locations as the northern distribution line segment, KOP 5 (Figure 4.1-6) and KOP 10 (Figure 4.1-11) provide representative views from SR 46 in the Paso Robles area. Additional 21/12 kV pad-mounted transformers would be installed primarily along existing roads in rural areas, including areas adjacent to or near agricultural fields and single-family residences.

Alternatives

In general, many of the alternatives would be located in rural, agricultural areas, often where transmission infrastructure already exists. In particular, both alternative substation sites (Alternatives SS-1 and SE-1A) would be located in rural areas, while both Alternative PLR-1A and PLR-1C would allow the new 70 kV power line segment to pass through the more rural area north of Paso Robles Municipal Airport rather than pass through the Golden Hill Industrial Park and other areas within the City. The existing 500/230 kV transmission corridor is a prominent

feature in the area of many of the alternatives and Templeton Substation is adjacent to the Alternative SE-1A site. The Alternative SS-1 site (Bonel Ranch) is adjacent to the Estrella River and Alternative PLR-1C Minor Route Variation 1 follows the Estrella River corridor along Estrella Road. Example front-of-the-meter (FTM) battery energy storage system (BESS) sites 6, 7, and 8 are each adjacent to existing area substations, while the example FTM Site 5 is adjacent to the California Department of Forestry and Fire Protection (CAL FIRE) Air Attack Base, which is next to the Paso Robles Municipal Airport.

Several of the alternatives or portions of alternatives are located in more densely developed areas within the City of Paso Robles. Like the Proposed Project's 70 kV power line, both Alternative PLR-1A and PLR-1C would reconductor the existing San Miguel-Paso Robles 70 kV power line to the point where it meets the Paso Robles Substation. Thus, the reconductoring segments for these alternatives would pass through the same residential areas described above for the Proposed Project (see KOPs 8 and 9 in Figure 4.1-9 and Figure 4.1-10). The 70 kV power line under Alternative SE-PLR-2 also would pass through residential and commercial areas of Paso Robles along South River Road north of Charolais Road to Niblick Road. Alternative PLR-3 would be routed through the Golden Hill Industrial Park and the private portion of Golden Hill Road north of San Antonio Winery; but since the 70 kV power line would be undergrounded for this segment, the components would not be visible to surrounding land uses (except for the transition stations at each end of the underground alignment). Example FTM Sites 1-4 would all be located within the City near Paso Robles Substation, including adjacent to the baseball field at Paso Robles High School (example FTM Site 4) and within the Woodland Plaza II shopping center (example FTM Site 2).

KOPs 10 through 23 show existing views at alternative site locations and along alternative alignments, as shown in Figure 4.1-11 through Figure 4.1-17. The visibility and visual conditions, visual quality, and visual sensitivity of the existing environment captured by the KOPs (including those for the Proposed Project) are summarized in Table 4.1-1. Additionally, Table 4.1-2 further describes the visual conditions at the example FTM sites under Alternative BS-2.

Viewer Groups

Viewer groups in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives and their sensitivity to visual changes are described below. Viewer groups with visual access to the Proposed Project, reasonably foreseeable distribution components, and alternatives areas are divided into the categories of residents, motorists, recreationists, and patrons of nearby businesses, including tourists.

Residents

The Estrella Substation site is immediately visible from a few residences located in the surrounding area. Residences located in the vicinity of the Proposed Project's 70 kV power line would also have views of the 70 kV line to varying degrees. Several KOPs, including KOP 6 (Figure 4.1-7) and KOP 8 (Figure 4.1-9) provide typical views of the Proposed Project's 70 kV power line alignment from Golden Hill Road and Clubhouse Drive, respectively, which are indicative of the types of views that many residents may experience. Additionally, portions of power line routing alternative (Alternatives PLR-1A, PLR-1C, and SE-PLR-2) that pass through residential areas of the County and City would be visible by residents in the area. The new substations under Alternative SS-1 or Alternative SE-1A could be visible to the few residences in the surrounding

areas. In general, as a viewer group, residents have a heightened sensitivity to the surrounding viewshed because they have high frequency and longer duration of views, as well as heightened appreciation for the aesthetic environment (e.g., landforms, rockforms, water features, and vegetation patterns) surrounding their residences. Typically, visual sensitivities of residents increase with higher visibility and higher exposure.

Motorists

Motorists traveling on Union Road, SR 46, Golden Hill Road, North River Road, and other local roads would have views of the Proposed Project area and reasonably foreseeable distribution components. Motorists using Wellsona Road would have views of Alternatives PLR-1A and PLR-1C, and those traveling on Estrella Road would have views of Alternative SS-1 and PLR-1C (particularly Minor Route Variation 1). Similarly, Alternatives SE-1 and SE-PLR-2 are visible from El Pomar Drive and South River Road, among other local roads. Example FTM sites under Alternative BS-2 are visible from various local roads.

In general, motorists' views would be temporary and would last for shorter durations. As a result, most motorists in this area would have reduced sensitivity to the surrounding viewshed. However, motorists traveling on scenic corridors such as Union Road and SR 46 (eligible for listing as a state scenic highway) are expected to have a somewhat higher sensitivity to the surrounding viewshed in comparison to other local roads. Motorists represent the largest potentially affected view group for the Proposed Project, reasonably foreseeable distribution components, and alternatives.

Recreationists

Recreationists with views of the Proposed Project's 70 kV power line would include users at Barney Schwartz Park (see KOP 3 [Figure 4.1-4] and KOP 4 [Figure 4.1-5]) and Paso Robles Sports Club. Golfers at River Oaks Golf Course would also have views of the Proposed Project's 70 kV reconductoring segment (as well as the reconductoring segment under Alternatives PLR-1A and PLR-1C), as would users of the Salinas River Parkway Trail. Golfers at Hunter Ranch Golf Course would have views of the northern reasonably foreseeable new distribution line segment. Additionally, recreational users of the Charolais Corridor Trail would have views of the Alternative SE-PLR-2 alignment along South River Road at Charolais Road. Recreational users of the baseball field at Paso Robles High School would have views of the potential FTM BESS facilities at example FTM Site 4. See Section 4.16, "Recreation," for detailed discussion of the parks and recreational resources in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives.

Since recreationists tend to have longer view durations, their viewer sensitivity is usually considered higher than an average viewer, although their sensitivity is also influenced by viewing distance, visual quality, and viewer concern.

Patrons of Nearby Businesses

As discussed above, an approximately 1-mile segment of the Proposed Project's new 70 kV power line would traverse through a mix of industrial, commercial, and business park uses (Golden Hill Industrial Park) in eastern Paso Robles after it crosses SR 46. Businesses adjacent to the power line alignment include Paso Robles Self Storage, El Paso Self Storage, Hank's Welding

Services, Paso Robles Waste & Recycle, Crop Production Services, Inc., Mayan Hardwood, Davis Boats, IQMS, Carrier Totaline, Lazer Star, and Artistry in Motion. Other businesses along the Proposed Project 70 kV power line alignment in this area catering more to tourists include Cava Robles RV Park and Riboli Family of San Antonio Winery and Event Center. With the exception of the 1-mile segment discussed above, the majority of the Proposed Project, the reasonably foreseeable distribution components, and many of the alternatives are located in rural, agricultural areas, where there are few businesses. The northern portion of Alternative SE-PLR-2 would pass through commercial areas of the City along South River Road, while FTM Site 2 would be located within the Woodland Plaza II shopping center, where a number of existing businesses are located.

Patrons of businesses in the area of the Proposed Project, reasonably foreseeable distribution components, and alternatives would have temporary views of the new power line or distribution/alternative facilities. Patrons of those businesses that cater to tourists, such as Cava Robles RV Park and Riboli Family of San Antonio Winery and Event Center, may have a somewhat higher expectation of the surrounding landscape because these businesses market patronage experiences to include scenic views and drives to and around these properties and surrounding areas (Sun RV Resorts 2020). For these reasons, viewer concern ratings are considered moderate or moderate-to-high.

Scenic Vistas

A scenic vista is generally defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Scenic vistas are also typically designated by an agency or department that actively manages the scenic vista to maintain or protect the public view through provision of public access, information, safety and protection of resources (e.g., signage, parking area, and safety fencing/rails). The landscape of the City of Paso Robles and unincorporated areas of San Luis Obispo County is characterized by a combination of vineyards, agriculture, rural residential development, and urban land uses in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives. The following natural landmarks and open space viewsheds are identified in the City of Paso Robles General Plan (2003):

- Salinas River
- Huer Huero Creek
- Field at north end of Ramada Drive (between the railroad and 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

Scenic Highways and Corridors

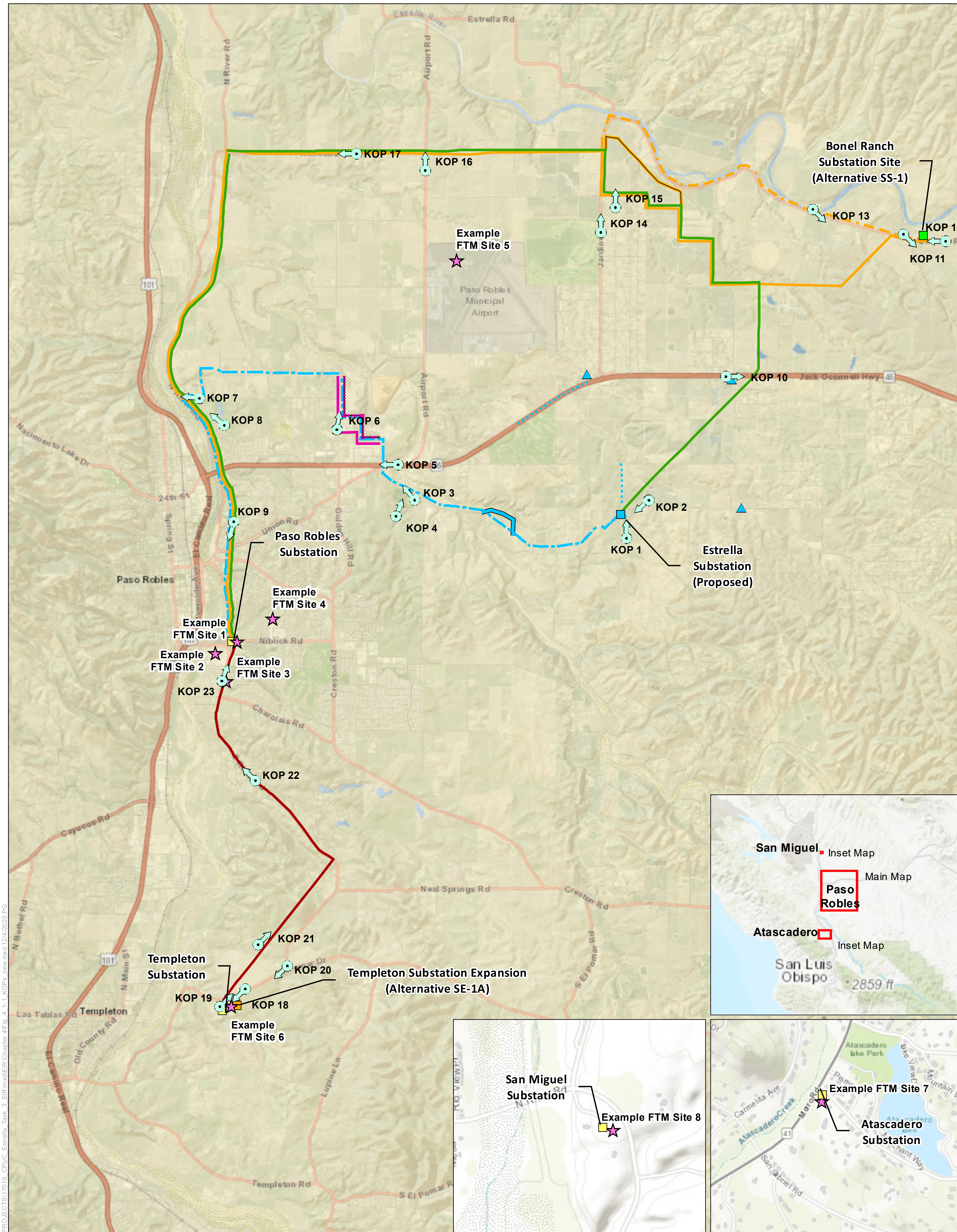
There are no state-designated scenic highways in the vicinity of the Proposed Project, reasonably foreseeable distribution components, or alternatives. However, SR 46 and the

segment of Highway 101 south of SR 46 in the Paso Robles area are both eligible for listing as state scenic highways (Caltrans 2018b). Additionally, Union Road is considered a visual corridor and gateway in the City of Paso Robles General Plan (City of Paso Robles 2003). The full length of Highway 101 that runs parallel to Paso Robles is also considered a visual corridor in the City's General Plan. Under the Proposed Project, the new 70 kV power line would cross SR 46 near its intersection with Union Road. The Proposed Project's 70 kV reconductoring segment (as well as the reconductoring segments for Alternatives PLR-1A and PLR-1C) is roughly 0.1 mile east of Highway 101. Additionally, the northern reasonably foreseeable new distribution line segment would be installed within the median of SR 46, while Alternative PLR-1A would also traverse SR 46 near the intersection with Branch Road.

Light and Glare

Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments. Light that falls beyond the intended area of illumination is referred to as "light trespass." The most common cause of light trespass is spillover light, which occurs when a lighting source illuminates surfaces beyond the intended area, such as when building security lighting or parking lot lights shine onto neighboring properties. Spillover light can adversely affect light-sensitive uses, such as residences, at nighttime. Both light intensity and fixtures can affect the amount of any light spillover. Modern, energy-efficient fixtures that face downward, such as shielded light fixtures, are typically less obtrusive than older, upward-facing light fixtures. Glare is caused by light reflections from pavement, vehicles, and building materials such as reflective glass, polished surfaces, or metallic architectural features. During daylight hours, the amount of glare depends on the intensity and direction of sunlight.

Throughout the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives, the primary sources of nighttime lighting and glare are associated with the urban areas of Paso Robles. Nighttime lighting and glare in the more rural areas of the County are substantially less pronounced and associated with scattered residential uses.



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Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

N

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Horizon
WATER and ENVIRONMENT

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Aesthetic Features

- Key Observation Points (KOPs)

Figure 4.1-1
Key Observation Points

Source: ESRI 2018, PG&E 2019, SCWA 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and
Paso Robles Area Reinforcement Project

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KOP 1. Existing view from Union Rd. looking northeast toward the proposed Estrella Substation site.

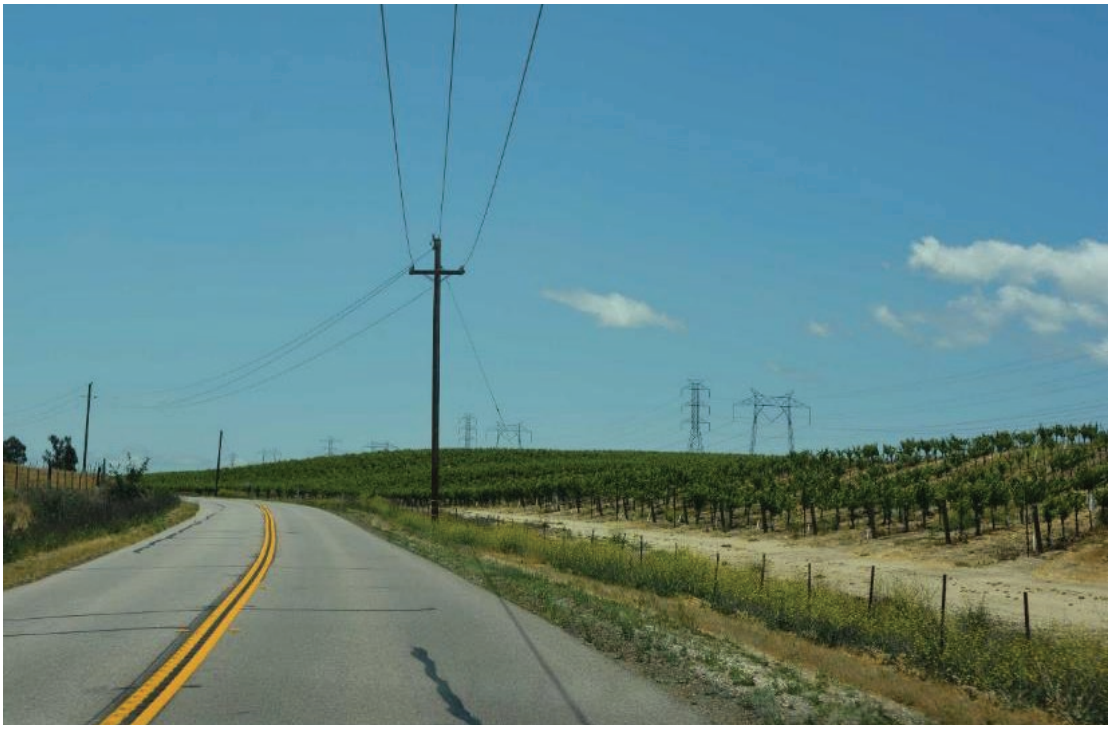
Visual simulation of the Estrella Substation from KOP 1.

Source: SWCA 2019

Figure 4.1-2. Existing and Simulated Views of KOP 1

Horizon WATER and ENVIRONMENT

Estrella Substation and
Paso Robles Area Reinforcement Project



KOP 2. Existing view from Union Rd. looking west toward the proposed Estrella Substation site.

Visual simulation of the proposed Estrella Substation from KOP 2.

Source: SWCA 2017

Figure 4.1-3. Existing and Simulated Views of KOP 2

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

KOP 3. Existing view looking northwest toward the proposed 70 kV power line from Union Rd. in front of Barney Schwartz Park.

Visual simulation of the proposed 70 kV power line looking northwest from Union Rd. in front of Barney Schwartz Park.

Source: SWCA 2017

Figure 4.1-4. Existing and Simulated Views of KOP 3

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

KOP 4. Existing view looking northeast toward proposed 70 kV power line along Union Rd. from a ramada within Barney Schwartz Park.

Visual simulation of the proposed 70 kV power line looking northeast toward Union Rd. from a ramada within Barney Schwartz Park.

Source: SWCA 2017

Figure 4.1-5. Existing and Simulated Views of KOP 4

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

KOP 5. Existing view looking west from SR 46 towards Paso Robles where proposed 70 kV power line would cross the highway.

Visual simulation of KOP 5 looking west from SR 46 towards Paso Robles.

Source: SWCA 2017

Figure 4.1-6. Existing and Simulated Views of KOP 5

Horizon WATER and ENVIRONMENT

Estrella Substation and
Paso Robles Area Reinforcement Project

KOP 6. Existing view facing north toward the proposed 70 kV power line route from Golden Hill Rd.

Visual simulation of KOP 6 facing north toward the proposed 70 kV power line from Golden Hill Rd.

Source: SWCA 2019

Figure 4.1-7. Existing and Simulated Views of KOP 6

KOP 7. Existing private view looking northwest from a private lane toward the point where the proposed 70 kV power line connects to the reconductored segment.

Visual simulation of KOP 7 from a private lane looking northwest toward the point where the proposed 70 kV power line connects to the reconductored segment.

Source: SWCA 2017

Figure 4.1-8. Existing and Simulated Views of KOP 7

KOP 8. Existing long-range view looking west from Clubhouse Dr. toward the proposed 70 kV reconductored segment and Alternatives PLR-1A and PLR-1C.

Visual simulation of KOP 8 from Clubhouse Dr. looking west toward the 70 kV reconductored segment and Alternatives PLR-1A and PLR-1C.

Source: SWCA 2017

Figure 4.1-9. Existing and Simulated Views of KOP 8

KOP 9. Existing public view looking south along Riverglen Dr. toward the proposed 70 kV reconductored segment and Alternatives PLR-1A and PLR-1C.

Visual simulation of KOP 9 from Riverglen Dr. looking south toward the proposed 70 kV reconductored segment and Alternatives PLR-1A and PLR-1C.

Source: SWCA 2017

Figure 4.1-10. Existing and Simulated Views of KOP 9

KOP 10. Existing view from SR 46 looking east toward power line and Alternatives PLR-1A and PLR-1C.

KOP 11. Existing view looking southeast toward Bonel Ranch Substation site (Alternative SS-1) along the Alternative PLR-1C power line route from Estrella Rd.

Source: Horizon West and PG&E 2019

Figure 4.1-11. Existing Views from KOPs and 10 and 11

KOP 12. Existing view looking west toward Bonel Ranch Substation Alternative (SS-1) along Alternative PLR-1C power line route from Estrella Rd.

KOP 13. Existing view looking southeast along Alternative PLR-1C (Minor Route Variation 1) power line route from Estrella Rd.

Source: Horizon West and PG&E 2019

Figure 4.1-12. Existing Views from KOPs and 12 and 13

KOP 14. Existing view looking north toward power line routes of Alternatives PLR-1A and PLR-1C along Jardine Rd. and intersection with Oak Tree Valley Place (east of Links Golf Course of Paso Robles).

KOP 15. Existing view looking north toward Alternative PLR-1A power line route alternative from northern end of Whispering Oak Wy.

Source: Horizon West and PG&E 2019

Figure 4.1-13. Existing Views from KOPs and 14 and 15

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

KOP 16. Existing view looking north toward Alternative PLR-1A power line route from Airport Rd.

KOP 17. Existing view looking west along Alternative PLR-1A power line route from Wellsona Rd.

Source: Horizon West and PG&E 2019

Figure 4.1-14. Existing Views from KOPs and 16 and 17

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

KOP 18. Existing view looking southwest along Alternative SE-PLR-2 power line route toward Templeton Substation Alternative (SE-1) from El Pomar Dr.

KOP 19. Existing view looking northeast toward Alternative SE-PLR-2 from toward the Templeton Substation Alternative. View includes existing 230 kV and 500 kV transmission lines.

Source: Horizon West and PG&E 2019

Figure 4.1-15. Existing Views from KOPs and 18 and 19

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

KOP 20. Existing view looking southwest toward Templeton Substation (Alternative SE-1) from El Pomar Drive west of Neal Springs Rd (near residence on El Pomar).

KOP 21. Existing view looking northeast toward Alternative SE-PLR-2 power line route from Concho Way.

Source: Horizon West and PG&E 2019

Figure 4.1-16. Existing Views from KOPs and 20 and 21

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

KOP 22. Existing view looking northwest toward Alternative SE-PLR-2 power line route from Spanish Camp Rd. and River Rd.

KOP 23. Existing view looking north-northeast toward Alternative SE-PLR-2 power line route from South River Rd.

Source: Horizon West and PG&E 2019

Figure 4.1-17. Existing Views from KOPs and 22 and 23

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

Table 4.1-1. Key Observation Point Visual Characteristics Summary

KOP Number and Location	Visibility and Visual Conditions	Visual Quality[1]	Viewer Concern[2]	Viewer Exposure[3]	Visual Sensitivity[4]
KOP 1: Looking northeast toward Estrella Substation site from Union Road.	Representative close-up view of the proposed Estrella Substation site from the nearest residence and from the perspective of motorists traveling on Union Road. Landscape is predominantly agricultural, consisting of vineyards, although existing 230 kV and 500 kV transmission lines and towers are visible in the middleground. The vineyards and rolling topography have a high visual appeal and dominate the viewshed relative to the built structures.	Moderate-to-high	High	Moderate	Moderate-to-high
KOP 2: Looking southeast toward Estrella Substation site from Union Road.	Representative close-up view of the eastern side of the Estrella Substation site from the perspective of motorists traveling west along Union Road. Similar to KOP 1, the landscape is predominantly agricultural, consisting of mostly vineyards, although views of the 230 kV and 500 kV transmission lines and towers are visible in the middleground and existing utility poles and a distribution line along Union Road are visible in the foreground. Views of vineyards are generally considered scenic for motorists and tourists traveling along Union Road.	Moderate-to-high	High	Moderate	Moderate-to-high
KOP 3: Looking northwest toward the Proposed Project's 70 kV power line route from Barney Schwartz Park at Union Road.	Representative view of the proposed 70 kV power line route along Union Road from the Barney Schwartz Park entrance. From this viewpoint, the landscape predominantly consists of residential development and the local baseball park, Union Road and existing distribution lines and supporting structures.	Moderate	Moderate	Moderate-to-high	Moderate

KOP Number and Location	Visibility and Visual Conditions	Visual Quality[1]	Viewer Concern[2]	Viewer Exposure[3]	Visual Sensitivity[4]
KOP 4: Looking northeast toward the Proposed Project's 70 kV power line route from a ramada within Barney Schwartz Park.	Representative view from a recreationist's perspective. The landscape visible from KOP 4 is dominated by the baseball park, 100-foot-tall stadium light poles, fencing, and concession stands that are visible in the foreground. Residential development and existing distribution lines and supporting structures, and pastures are visible in the middleground. The new 70 kV power line would also be in the middleground.	Moderate	Low	Low	Low
KOP 5: Looking west toward the Proposed Project's 70 kV power line route from SR 46 (close range view for motorists).	Representative view from perspective of motorists traveling west on SR 46. From this viewpoint, the visible landscape predominantly consists of pastures, wineries, and residences, as well as existing distribution lines and supporting structures. The number of viewers potentially seeing the Proposed Project components from this vantage point is high but consist of motorists traveling at high speeds on SR 46.	Low-to-Moderate	Low-to-Moderate	Moderate	Low-to-Moderate
KOP 6: Looking north from Golden Hill Road toward the Proposed Project's new 70 kV power line segment (and undergrounded segment under Alternative PLR-3).	Representative views from perspective of motorists traveling on Golden Hill Road and the closest residence. This particular area is characterized by rural residential uses and tourist attractions including the winery and event center and the Cava Robles RV Park. From this viewpoint, the landscape includes mature trees, security gate, road leading to the Cava Robles RV Park (pictured at right in the photo), and open space. No existing overhead distribution lines are apparent from this KOP. Overhead distribution lines that had existed along this portion of Golden Hill Road prior to 2017-2018 were undergrounded as part of the Cava Robles RV Park construction (Dawson,	Moderate-to-High	Moderate-to-High	Moderate	Moderate

KOP Number and Location	Visibility and Visual Conditions	Visual Quality[1]	Viewer Concern[2]	Viewer Exposure[3]	Visual Sensitivity[4]
	pers. comm., 2020). The Cava Robles RV Park property, shown at right in KOP 6, also was designated as Parks and Open Space (POS) (see Figure 4.11-1 in Section 4.11, "Land Use and Planning") by the City of Paso Robles during the City's review and approval of the Cava Robles development.				
KOP 7: Looking northwest from a private lane along the new 70 kV power line route near the junction with the existing San Miguel-Paso Robles 70 kV power line (i.e., reconductoring segment).	Representative view of where the Proposed Project's new 70 kV power line segment transitions to the reconductoring segment of the existing line along River Road, from perspective of a private residence on this lane. Views from this KOP are dominated by agricultural fields, trees, and foothills in the background. The number of viewers from this KOP would be low, but the views would be close-up and duration would be high for nearby residents.	Moderate	Moderate-to-High	Moderate-to-High	Moderate-to-high
KOP 8: Looking west from Clubhouse Drive toward Proposed Project's 70 kV reconductoring segment (and reconductoring segments for Alternatives PLR-1A and PLR-1C).	Clubhouse Drive is a public road adjacent to a private club and the River Oaks Golf Course in a residential area just east of North River Road. This photo provides a representative view of the reconductoring segment from residential areas. From this KOP, views predominantly include open fields with vegetation in the foreground; existing distribution lines and supporting structures in the middleground, and rolling hills in the background.	Moderate	Low	Moderate-to-high	Low
KOP 9: Looking south along Riverglen Drive along the Proposed Project's 70 kV reconductoring segment (and	Riverglen Drive is a public road in a residential area of Paso Robles. This photo provides a typical close-up view of the reconductoring segment from residential areas along the alignment. Views from this KOP are	Low-to-Moderate	Low-to-Moderate	High	Low-to-Moderate

KOP Number and Location	Visibility and Visual Conditions	Visual Quality[1]	Viewer Concern[2]	Viewer Exposure[3]	Visual Sensitivity[4]
reconductoring segment for Alternatives PLR-1A and PLR-1C).	predominantly developed with residences, trees, and existing distribution and power lines and supporting structures. A high number of residences would have close-up and long duration views of the reconductored power line in this location.				
KOP 10: Looking east from SR 46 near Branch Road toward the Alternative PLR-1A alignment.	Alternative PLR-1A would parallel the existing 500/230 kV transmission corridor. This photo provides a representative view from the perspective of a motorist traveling on SR 46 with fleeting views due to the speed of travel. Views from this KOP mostly consist of agricultural lands, residential development, transmission lines and supporting infrastructure.	Low-to-Moderate	Low-to-Moderate	Moderate	Low-to-Moderate
KOP 11: Looking southeast from Estrella Road toward the Bonel Ranch Substation Site (Alternative SS-1).	Representative view of the substation site under Alternative SS-1 from the perspective of a motorist traveling on Estrella Road. Views from this KOP mostly consist of agricultural land, open pastures, a few residences, distribution lines and supporting structures. Undeveloped foothills can be seen in the background. There are a low number of viewers in this area, but a high duration of views for nearby residents.	Moderate-to-High	Moderate	Low-to-Moderate	Moderate
KOP 12: Looking west from Estrella Road toward the Bonel Ranch Substation Site (Alternative SS-1).	Represents a typical view of the western side of the substation site under Alternative SS-1 from the perspective of a motorist traveling on Estrella Road. Views predominantly consist of agricultural land, open pastures, fencing, distribution lines and supporting structures. There are a low number of viewers in this area, but a high duration of views for nearby residents.	Moderate-to-high	Moderate	Low-to-Moderate	Moderate

KOP Number and Location	Visibility and Visual Conditions	Visual Quality[1]	Viewer Concern[2]	Viewer Exposure[3]	Visual Sensitivity[4]
KOP 13: Looking southeast from Estrella Road along the Alternative PLR-1C, Minor Route Variation 1 alignment.	Represents a typical view for a motorist using Estrella Road in the location where the 70 kV power line would be installed under Alternative PLR-1C, Minor Route Variation 1. Views from this KOP predominantly consist of open agricultural land, fencing, distribution lines, and mature trees. There would be a low number of viewers in this area, but high duration of views for nearby residents.	Moderate-to-high	Moderate	Low-to-Moderate	Moderate
KOP 14: Looking north along Jardine Rd from near the intersection with Oak Tree Valley Place (east of Links Golf Course of Paso Robles) towards the Alternative PLR-1A/-1C alignment.	Represents a typical view for a motorist using Jardine Road and a resident located on this road looking toward where the 70 kV power line would be installed under Alternatives PLR-1A and PLR-1C. From this KOP, views mostly consist of residential development, the golf course to the west, existing distribution lines and supporting structures, and agricultural land. The duration of views of the alternative components from this area would be high for nearby residents, but low for motorists.	Moderate	Moderate-to-High	Moderate	Moderate
KOP 15: Looking north from the northern end of Whispering Oak Way toward the Alternative PLR-1A/-1C alignment.	Represents a typical view of the 70 kV power line alignment under Alternatives PLR-1A and PLR-1C from the perspective of a resident on Whispering Oak Way. Views consist of fencing, distribution lines, agricultural land, and some trees. There are a relatively low number of viewers in this area, but a high duration of views for nearby residents.	Moderate	Moderate-to-High	Low-to-Moderate	Moderate
KOP 16: Looking north from Airport Road toward the Alternative PLR-1A/PLR-1C alignment.	Represents a typical view of the 70 kV power line alignment under Alternatives PLR-1A and PLR-1C from the perspective of a motorist traveling on Airport Road. Views from this KOP include vineyards in the foreground	Moderate	Moderate-to-high	Moderate	Moderate

KOP Number and Location	Visibility and Visual Conditions	Visual Quality[1]	Viewer Concern[2]	Viewer Exposure[3]	Visual Sensitivity[4]
	and distribution lines in the middleground. There would be a moderate number of motorists in this area, and there are a few scattered residences.				
KOP 17: Looking west from Wellsona Road in an area west of Airport Road along the power line route of Alternatives PLR-1A and PLR-1C.	Represents a typical view of the 70 kV power line alignment under Alternatives PLR-1A and PLR-1C from the perspective of a motorist traveling on Wellsona Road. Views of agricultural pasture lands and distribution lines can be seen from this KOP.	Moderate	Moderate-to-high	Moderate	Moderate
KOP 18: Looking southwest from El Pomar Drive toward the Templeton Substation Expansion Site (Alternative SE-1A).	Represents a typical view of the Templeton Substation Expansion Site (Alternative SE-1A) from the perspective of a motorist traveling on El Pomar Drive. While the landscape includes vegetation and agricultural lands, this view is dominated by existing transmission towers, electrical lines, and supporting structures.	Low-to-Moderate	Low-to-Moderate	Moderate	Low-to-Moderate
KOP 19: Looking northeast from El Pomar Drive toward the Alternative SE-PLR-2 alignment and the Templeton Substation Expansion Site (Alternative SE-1A).	Represents a typical view of the start of the Alternative SE-PLR-2 alignment and the Templeton Substation Expansion Site (Alternative SE-1A) from the perspective of a motorist traveling on El Pomar Drive. Similar to KOP 19, this view is dominated by the existing transmission towers and electrical lines.	Low-to-Moderate	Low-to-Moderate	Moderate	Low-to-Moderate
KOP 20: Looking southwest from El Pomar Drive west of Neal Springs Road (near residence on El Pomar) toward the Templeton	Represents a typical view of the Templeton Substation Expansion Site (Alternative SE-1A) (from a greater distance than KOP 18) from the perspective of a motorist and nearby residence on El Pomar Drive, as well as the St. Hilaire Winery. View consists of agricultural land, existing electrical lines, and mature trees.	Moderate	Moderate	Moderate	Moderate

KOP Number and Location	Visibility and Visual Conditions	Visual Quality[1]	Viewer Concern[2]	Viewer Exposure[3]	Visual Sensitivity[4]
Substation Expansion Site (Alternative SE-1A).					
KOP 21: Looking northeast from Concho Way toward the Alternative SE-PLR-2 route.	Represents a typical view from a few rural residences with views along the portion of Alternative SE-PLR-2 that parallels the existing 230/500 kV transmission corridor. From this KOP, views of largely undeveloped rolling hills and the existing 230/500 kV transmission line can be seen.	Moderate	Low-to-Moderate	Low	Moderate
KOP 22: Looking northwest from South River Road (near its intersection with Spanish Camp Road) along the Alternative SE-PLR-2 alignment.	Represents a typical view of the Alternative SE-PLR-2 alignment from the perspective of a motorist traveling on South River Road. From this view, foreground views include mature trees, fencing, and rolling hills. Due to the lack of development and dominance of trees and vegetation, this particular KOP has a high visual appeal.	Moderate-to-High	High	Moderate	Moderate-to-high
KOP 23: Looking north-northeast from South River Road (just north of its intersection with Riverbank Lane) along the Alternative SE-PLR-2 alignment.	Represents a typical view of the northern section of Alternative SE-PLR-2 within the City of Paso Robles from the perspective of a motorist traveling on South River Road or local resident in the area. Residences are apparent behind a wall to the left of the photo (i.e., west of South River Road). At the time the photo was taken, construction activities on the parcel to the east of River Road were underway, as dirt stockpiles and orange construction cones are shown. From this KOP, views are dominated by residential development, electrical distribution lines and supporting structures, landscaping trees, and ongoing construction activity to the east. This area is characterized by a high number of motorists and	Low	Low-to-Moderate	High	Moderate

KOP Number and Location	Visibility and Visual Conditions	Visual Quality[1]	Viewer Concern[2]	Viewer Exposure[3]	Visual Sensitivity[4]
	residences that would have close-up views of the power line route. Residences would have long duration views of the alternative components, although these views would be partially screened by trees and the retaining wall.				

Notes: KOP = key observation point; kV = kilovolt; POS = Parks and Open Space

1. A high visual quality rating is defined as visual resources that are unique or exemplary of the region's natural or cultural scenic amenities. A moderate visual quality rating is defined as visual resources typical or characteristic of the region's natural and/or cultural visual amenities. A low visual quality rating refers to areas generally lacking in natural or cultural visual resource amenities typical of the region
2. A high viewer concern rating might occur when views are appreciated frequently, for longer durations, and/or by receptors located within a short distance. A moderate viewer concern rating would occur when views have an average level of intrinsic beauty or frequency of viewers. A low viewer concern rating would be common for views that are not regarded for intrinsic beauty, are not seen by many sensitive receptors, and/or are only seen for short durations and from long distances.
3. A high viewer exposure rating is defined as having direct landscape visibility, close-range views, increased number of viewers, and for a longer duration. A moderate viewer exposure is defined as having partial visibility and an average number of viewers. A low viewer exposure rating is defined as having obstructed visibility, long-range views, decreased number of viewers, and short duration of view.
4. A high visual sensitivity rating is defined as foreground views, views of high frequency and duration, and/or views where a contract from the surrounding character would be highly noticeable. A moderate visual sensitivity rating is defined as middle ground views, views of moderate frequency and duration, and/or views where a contract from the surrounding character would be moderately noticeable. A low visual sensitivity rating is defined as background views, views of low frequency and duration, and/or views where a contract from the surrounding character would be marginally noticed.

Table 4.1-2. Example Front-of-the-Meter Battery Storage Sites Visual Characteristics Summary

Site Number and Location	Visibility and Visual Conditions of Site	Visual Quality	Viewer Concern	Viewer Exposure	Viewer Sensitivity
Example FTM Site 1: Immediately adjacent to Paso Robles Substation.	The vacant site is surrounded by residential uses to the north, the Paso Robles Substation to the west, and commercial development to the south. Site is primarily visible to motorists traveling on Niblick Road and residences on Cary Street and Quarterhorse Lane, as well as commercial uses to the south of Niblick Road. Some mature trees provide visual screening of the site along Niblick Road. Motorists and residences are likely accustomed to viewing electrical infrastructure present at the Paso Robles Substation. There would be a high number of motorists with views of the site, while nearby residences would have a high duration of views.	Low-to-Moderate	Low-to-Moderate	Low-to-Moderate	Low-Moderate
Example FTM Site 2: Within the shopping center located southwest of the intersection of Niblick Road and River Road.	Vacant site is surrounded by parking lots of surrounding commercial uses and is primarily visible to patrons of nearby commercial development.	Low-to-Moderate	Low-to-Moderate	High	Low-to-Moderate
Example FTM Site 3: Along South River Road south of Serenade Drive on the easterly side of the street.	Vacant site is bordered by mature trees to the east and South River Road to the west. Site is primarily visible to motorists using South River Road. A few residences to the west of the site (across South River Road) may have partial views of the site, though mature trees and a barrier wall screen views of the site.	Low-to-Moderate	Low-to-Moderate	High	Low-to-Moderate

Site Number and Location	Visibility and Visual Conditions of Site	Visual Quality	Viewer Concern	Viewer Exposure	Viewer Sensitivity
Example FTM Site 4: Within Paso Robles High School adjacent to the baseball field.	Primarily visible to students and faculty at Paso Robles High School. A few residences on Appaloosa Drive may have partial views of the site from their backyard, but these views are expected to be mostly screened by fencing.	Low-to-Moderate	Low	Low	Low-to-Moderate
Example FTM Site 5: On the north side of Satellite Drive adjacent to the CAL FIRE Air Attack Base, which is next to the Paso Robles Municipal Airport runway.	Site is currently vacant and surrounded by airport facilities, industrial uses, CAL FIRE Air Attack Base, and agricultural uses to the north. Views of the site are limited to workers and patrons at surrounding industrial businesses and the CAL FIRE facility. More distant views are accessible from Airport Road.	Low	Low	Low	Low
Example FTM Site 6: Adjacent to the existing Templeton Substation, on the southerly side of El Pomar Drive.	Vacant site is currently used for agricultural purposes, overall visual conditions are largely characterized by the electrical infrastructure at the adjacent Templeton Substation. Site is primarily visible to workers at the Templeton Substation and motorists from El Pomar Drive.	Low-to-Moderate	Low	Moderate	Low-to-Moderate
Example FTM Site 7: Immediately adjacent to the existing Atascadero Substation.	Vacant site is located just south of the Atascadero Substation along Morro Road. Mature trees present along the western side of the property provide some visual screening. Site is visible to motorists traveling on Morro Road and attendees at the Cornerstone Church to the east and southeast of the site.	Low-to-Moderate	Low	Moderate	Low-to-Moderate
Example FTM Site 8: Within or immediately adjacent to the existing San Miguel Substation.	The site is elevated above North River Road. Views of the site from North River Road are screened by a berm.	Low	Low	Low	Low

Notes: CAL FIRE = California Department of Forestry and Fire Protection; FTM = front-of-the-meter

4.1.5 Impact Analysis

Methodology

The visual impact analysis evaluates the visual changes that would occur from implementing the Proposed Project, reasonably foreseeable distribution components, and alternatives using the standards of quality, consistency, and symmetry typically used for a visual assessment. This assessment is also based on a review of maps, site photographs, aerial photographs, and visual simulations (which provide a "before" and "after" illustration of the potential changes that would occur with implementation of the Proposed Project; see Figure 4.1-2 through Figure 4.1-10). Visual simulations were provided by NextEra Energy Transmission West, LLC (NEET West) and Pacific Gas and Electric Company (PG&E) (2017a and 2019). Analysis of the impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives on existing visual resources is based on evaluation of the extent and implications of the visual changes, considering the following factors:

- Specific changes in the visual composition, character, and specifically valued qualities of the affected environment;
- Visual context of the affected environment;
- Extent to which the affected environment contains places or features that have been designated in plans and policies for protection or special consideration; and
- Number of viewers, their activities, and the extent to which these activities are related to the aesthetic qualities affected by actions that would be taken under the Proposed Project, reasonably foreseeable distribution components, and alternatives.

The visual impacts were compared against the thresholds of significance discussed below. An assessment of visual quality is subjective, and reasonable disagreement can occur as to whether alterations in the visual character of the potentially affected area would be adverse or beneficial.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, it was determined that, except as provided in Public Resources Code Section 21099, the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in a significant impact on aesthetics if they would:

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. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or

D. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

For criterion C, as described in Section 4.1.4, the Proposed Project, reasonably foreseeable distribution components, and alternatives are located primarily in non-urbanized areas. For this reason, the impact analysis focuses on substantial adverse impacts of the existing visual character or quality of public views of the site and its surroundings.

Environmental Impacts

Proposed Project

Impact AES-1: Have a substantial adverse effect on a scenic vista – *Less than Significant*

As described in Section 4.1.4, a scenic vista is generally considered a view of an area that provides expansive views of a highly valued landscape for the benefit of the general public. Within the area of the Proposed Project, several open space viewsheds have been identified by the City of Paso Robles in its General Plan, including the field at the north end of Ramada Drive (between the railroad and Salinas River), oak-covered hillsides, and the view from Barney Schwartz Park southwest toward and into the Chandler Ranch area (City of Paso Robles 2003). In general, construction and operation of the Proposed Project would not affect these scenic vistas.

The Estrella Substation would be placed within an existing vineyard and would not affect or substantially obstruct views of oak-covered hillsides that exist throughout the greater Paso Robles area. The Proposed Project's 70 kV power line would not affect the view southwest from Barney Schwartz Park; however, the power line would be visible from Barney Schwartz Park looking to the north. This view and the simulated change following development of the Proposed Project are shown in Figure 4.1-5. As indicated in the figure, there would be little discernable change to the viewshed from this location as a result of the Proposed Project. The field at the north end of Ramada Drive would be well south of the southern terminus of the Proposed Project's 70 kV reconductoring segment (and on the other side of the Salinas River) and this scenic vista would not be affected. In general, while the Proposed Project's 70 kV power line may be visible from several viewpoints throughout the City of Paso Robles and surrounding area, the degree of change relative to baseline conditions would be minor and would not substantially affect the scenic views. As a result, this impact would be **less than significant**.

Impact AES-2: Substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway – *Less than Significant*

While there are no state-designated scenic highways in the Proposed Project area, SR 46 is eligible for designation as a scenic highway. Thus, this analysis considers potential impacts to SR 46 as falling within the scope of Impact AES-2. As shown in Figure 4.1-6, the new 70 kV power line segment would cross SR 46 in an area where there is an existing distribution line that crosses the highway. Although the Proposed Project's 70 kV poles would be taller (likely 50 to 60 feet taller) than the existing ones and composed of a different material (steel vs. wood), the 70 kV power line would not substantially impair views from SR 46 or screen landscape features that are not already affected by the presence of the existing distribution line. While motorists

accustomed to traveling along SR 46 may notice the increased height of the 70 kV poles, the new 70 kV power line would not substantially damage scenic resources from SR 46 because the power line would generally be consistent with the existing visual setting.

The reconductoring segment of the Proposed Project's 70 kV power line would also be visible from a different location of SR 46. The reconductoring segment would follow the same alignment as the existing San Miguel-Paso Robles 70 kV power line, which crosses over the highway near the River Road underpass. The existing power line would be replaced, which could result in slightly taller replacement poles. The height difference between the replacement and existing poles would be largely indistinguishable. Therefore, the reconductoring segment would not substantially alter views from the highway, especially since motorists are already accustomed to the existing power line. Westbound motorists traveling on SR 46 would continue to have views of the hillsides in the background.

Construction activities would result in temporary adverse effects to the views discussed above within and adjacent to SR 46, such as from the presence of construction equipment and establishment of staging and work areas. These impacts, however, are considered less than significant as they would be temporary in nature. Construction activities would not affect any existing rock outcroppings or historic buildings at the two above-described crossings at SR 46. Construction of the reconductoring segment would be limited to replacing existing poles, so there would be no substantial change from existing conditions; however, it is possible that trimming or removal of some trees may be required for the construction activities in this area. At the location where the new power line segment would cross SR 46, review of Google Earth aerial imagery shows no rock outcroppings or buildings in this area that would be affected by the construction activities. Several trees are present at this crossing, which could potentially be affected (i.e., trimming or removal) by construction activities; in general, these effects would not represent a substantial change to the existing scenic resources associated with SR 46 and, therefore, would not be significant.

For the reasons described above, the new power line and reconductoring segment would not substantially damage views from state-designated scenic highways. Union Road is not a state-designated scenic highway; therefore, no impact would occur under this significance criterion from construction and operation of the Estrella Substation. As a result, this impact would be **less than significant**.

Impact AES-3: In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality – *Significant and Unavoidable*

Construction

During the construction period of the Estrella Substation (approximately 8 months), construction activities (e.g., vegetation removal and staging of construction materials, equipment, vehicles, temporary structures, and workers) would be visible to motorists and tourists along Union Road, as well as nearby residents. Construction of the new substation would occur on a 15-acre parcel adjacent to Union Road, although local topography would provide some screening of construction activities.

The Estrella Substation would be constructed in a rural (i.e., non-urbanized) setting where wine and agricultural production activities typically involve use of trucks and equipment similar to some construction equipment that would be used for constructing the proposed substation. While the new substation would be constructed in the vicinity of a few residences, wineries, and tasting rooms, views from these land uses would be mostly screened by topography or vegetation. The site's visual character and moderate-to-high visual quality would be adversely affected by the presence of construction vehicles, equipment, and workers; however, these effects would be temporary. Additionally, Union Road is already commonly used by construction equipment and vehicles supporting wine and agricultural production activities in the area. Therefore, construction of the Estrella Substation would not substantially degrade the visual character or quality of the site and its surroundings.

Construction of the Proposed Project's 70 kV power line segment would have similar effects on aesthetics as the Estrella Substation, although the power line construction would take longer (18 months total). Construction activities would include some grading and vegetation removal (e.g., for site preparation and establishment of work areas, pull and tension sites, and staging areas), installation of new power poles, removal of existing poles and distribution lines, and conductor stringing/pulling. Topography, vegetation, and existing structures would provide some screening along the power line route. In general, the presence of construction vehicles, equipment, materials, and workers along the Proposed Project's 70 kV route would adversely affect the visual character and quality of the area, while the grading and vegetation removal would alter landforms and vegetation along the alignment. Again, however, these impacts would be temporary.

Motorists, residents, recreationists, and tourists in close proximity to the Proposed Project's 70 kV power line route would have views of the construction equipment and activities at varying levels and durations from SR 46 and local roads including Union Road, Golden Hill Road and North River Road. In particular, the reconductoring segment of the Proposed Project's 70 kV power line would pass through more densely developed (i.e., urbanized) areas of Paso Robles, where some residents would have close-up views of the construction activities. View durations for motorists would vary depending on topography, vegetation screening, and the curvature of the road itself. Typically, view durations would be shorter along curvy roads but longer along straight roads where power line construction activities occur parallel to the road. Nonetheless, construction activities along the power line route would be temporary at each work area as construction progresses and the visual effects would not be dissimilar from any other type of construction project in the area. Therefore, this impact would be **less than significant**.

Operation

Development of the Estrella Substation would result in a permanent change to the landscape and would be clearly visible from KOPs 1 and 2, as shown in the visual simulations in Figure 4.1-2 and Figure 4.1-3. The substation would permanently alter the site's visual character from a rural setting to a more industrial environment. The visual simulation from KOP 1 shows a representative view of the substation from the perspective of eastbound motorists and the residence to the southwest of the substation site. As shown in the simulation, prominent views from Union Road would include substation facilities, towers, fencing, a new access road, the 230 kV interconnection and new 70 kV power line. KOP 2 shows a representative view of the

substation from the perspective of westbound motorists. Close-up views of the substation facilities would also be clearly visible from this perspective.

As indicated in Table 4.1-1, the visual quality of the site is moderate-to-high because the vineyards and rolling topography provide high visual appeal and dominate the viewshed relative to the existing utility poles and transmission lines nearby. Because Union Road is frequently used by motorists and tourists visiting wineries who typically consider views of vineyards as scenic, viewer concern is high and the overall visual sensitivity is moderate-to-high. Union Road also is designated by the City of Paso robles as a visual corridor and gateway into the City of Paso Robles, meaning that the City has identified this as an important visual resource, and limits or restricts the range of activities, design and/or development along the roadway such that a positive visual impression is maintained and natural features are preserved and/or incorporated (City of Paso Robles 2003). The two closest residences, one at the southwest corner of the parcel, and another east of the substation site, would have fairly unobstructed and long duration views whereas motorists would have short duration views of the facility. Overall, due to the scale and prominence of the new substation, it would be visually inconsistent with the surrounding landscape, which is characterized by vineyards and agricultural operations. This would represent a substantial adverse effect on the visual character and quality of the proposed substation site and surrounding landscape in the absence of applicant proposed measures (APMs) or mitigation measures.

The Proposed Project's new 70 kV power line segment would have similar adverse effects on the existing visual conditions, although the degree of impact would vary by location. Effects would be most pronounced in areas of the proposed 70 kV alignment that do not have existing transmission or distribution lines and in areas subject to immediate views from residents and recreationists. Dissimilarly, the reconductoring segment would replace existing poles and reconductor the existing power line; thus, it would not substantially change the existing visual character or quality in this area or be inconsistent with zoning regulations (transmission structures are allowed in all zoning districts along the alignment). As shown in Figure 4.1-4 through Figure 4.1-10, the aesthetic impacts of the new 70 kV power line would be incremental in many locations, and therefore not significant. However, the changes to the visual landscape at KOP 6, in particular, would be significant. As described in Table 4.1-1, overhead distribution lines that had existed along this section of Golden Hill Road were undergrounded as part of the Cava Robles RV Park construction in 2017-2018 (Dawson, pers. comm., 2020). Additionally, the Cava Robles RV Park property, which is adjacent to Golden Hill Road, was designated as Parks and Open Space (POS) (see Figure 4.11-1 in Section 4.11, "Land Use and Planning") by the City of Paso Robles during the City's review and approval of this development. Therefore, introducing a new power line to this area of Golden Hill Road would substantially degrade the visual character of the area, resulting in a significant impact.

As described in Chapter 2, *Project Description,* the Applicants would implement APM AES-1, which would require installing decorative rock and/or other hardscape landscaping between Estrella Substation and Union Road. This would reduce the effects of the substation on the existing visual character and visual quality. However, the substation would still appear as a dominant contrasting feature relative to the surrounding vineyards and would substantially degrade the landscape's visual character. This would be a significant impact. **Mitigation Measure AES-1**, described below, would require that landscaping, including drought- and fire-resistant native shrubs, be incorporated along Union Road in front of the substation (to the

extent that this does not increase fire risk) and that materials and paint colors be selected for Proposed Project features that would reduce visual contrast and complement the surrounding landscape. Mitigation Measure AES-1 would also require that transmission structures have a dulled finish.

While Mitigation Measure AES-1 would reduce the adverse effects on the visual character and quality of views of the Estrella Substation site and along the 70 kV power line alignment, it would not reduce these impacts to a level that is less than significant. The substation facilities would still dominate views from Union Road, and considering the moderate-to-high visual quality and sensitivity of this site, as well as the designation of Union Road as a local scenic corridor, the impacts on the visual character and quality would be significant. Likewise, even incorporating the elements described in Mitigation Measure AES-1, the 70 kV power line would still have a significant adverse effect on the visual character and quality of views in the area of Golden Hill Road. No other feasible mitigation is available to reduce these adverse effects. (Note: undergrounding the power line is not considered mitigation and is instead being evaluated as an alternative [Alternative PLR-3] to the Proposed Project.) As a result, this impact would be **significant and unavoidable**.

Mitigation Measure AES-1: Use Landscaping, Design and Architectural Elements to Complement the Surrounding Visual Landscape.

HWT and PG&E shall implement the following measures:

- Incorporate drought- and fire-resistant native shrubs within the hardscape landscaping proposed in APM AES-1 between Union Road and the Estrella Substation. For alternative substation sites, incorporate drought- and fire-resistant shrubs between the adjacent roadway and the substation. Coordinate with CAL FIRE / County Fire Department to ensure that any shrubs used in landscaping adjacent to the substation do not substantially increase fire risk.

- At the substation, incorporate chain link fence slats using natural colors that are compatible with the surrounding area (i.e., green, light brown) in order to minimize visual contrast.

- For all Proposed Project and alternative components, use materials and paint colors that are compatible with the surrounding area (i.e., dull grey, light brown, or green colors) in order to minimize visual contrast. Avoid the use of large expanses of reflective glazing, aluminum panels, and other materials not normally found in the environment. Use a dulled finish on power line and transmission structures.

- With respect to power line and transmission structures, balance the need to minimize visual contrast with ensuring that structures are visible to aircraft pilots and birds.

Impact AES-4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area – *Less than Significant with Mitigation*

The Proposed Project could create some new light and glare during construction and operation. As described in Chapter 2, *Project Description,* Proposed Project construction would primarily occur during daytime hours; however, occasional nighttime work may be needed whereby construction lighting could result in temporary adverse impacts to nighttime views. The activities that may occur during nighttime hours would generally be limited in intensity and would not normally generate noise; nevertheless, these activities require that the work area be illuminated and would thus add a new source of light to the area, which is mostly rural and very dark at night. Because construction of the power line route would be segmented, occurring at structure locations for short durations along the alignment, any potential light or glare effects at a given work location would be temporary and would last for a short duration. Additionally, implementation of APM AES-2, which requires that construction lighting be selectively placed and shielded to minimize nighttime glare, would further reduce construction-related light and glare impacts.

Over the long term, lighting at the Estrella Substation would add light to the area, which could affect nighttime views. Permanent lighting installed at Estrella Substation would consist of sodium vapor or light emitting device (LED) fixtures inside the facility and at the entry/exit gates. The lighting would be controlled by a photocell that automatically turns the lights on and off. In the vicinity of the Estrella Substation site, there is currently minimal roadway lighting and localized lighting is mostly associated with nearby rural residential uses. While the new substation would introduce a new permanent source of lighting, all on-site lighting would be oriented downward to minimize glare onto the surrounding property. The new lighting at the substation would be consistent with the Dark Sky rating recommendations (see Chapter 2) and would not shine onto Union Road. While the new lighting would likely be visible to motorists passing by the Estrella Substation as well as to the two nearby residences (approximately 1,000 feet away from the substation site), due to the shielding and downward orientation of the lights, operation of the Estrella Substation would not result in a substantial adverse effect on nighttime views.

The Proposed Project's 70 kV power line, or related operation and maintenance activities would not result in new, permanent sources of light or glare. As discussed above, the specular wires associated with the power line would be shiny initially, thereby potentially resulting in a new source of glare for daytime views; but wires are expected to dull over time such that these impacts would be considered temporary and less than significant. The metal transmission structures associated with the substation and the metal power line structures could similarly create substantial new sources of glare, which would be a significant impact. However, **Mitigation Measure AES-1** requires transmission structures have a dulled finish, thereby ensuring these structures would not create substantial glare to daytime viewers. While most operation and maintenance activities would occur during the daytime hours when no or minimal additional lighting would be needed, it is possible that nighttime maintenance may be needed on rare occasions (e.g., in the event of an emergency). In these instances, maintenance activities at the Estrella Substation and along the power line route may require extra nighttime lighting; however, use of nighttime lighting would be sporadic and limited in duration. Additionally, implementation of APM AES-2 would further reduce this impact. Therefore, this impact would be **less than significant with mitigation**.

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

As described in Section 4.1.4, the reasonably foreseeable distribution components would be installed primarily in rural, agricultural areas as well as within existing road rights-of-way. The reasonably foreseeable distribution components would consist of new distribution line segments (a northern and southern line segment), including poles up to 50 feet tall and associated electrical lines, as well as three additional 21/12 kV pad-mounted transformers. Like the Proposed Project, the reasonably foreseeable distribution components would not substantially affect any identified scenic vistas. The equipment and facilities associated with ultimate substation buildout would primarily be placed within the fence line of the already-constructed Estrella Substation and would not affect scenic vistas. Therefore, impacts under significance criterion A would be **less than significant**.

Although there are no state-designated scenic highways in the reasonably foreseeable distribution components area, SR 46 is eligible for listing as a scenic highway. The northern reasonably foreseeable distribution line segment would be installed within SR 46 right-of-way for an approximately 1.1-mile stretch near Hunter Ranch Golf Course, as shown in Figure 2-10 (Chapter 2). While the addition of wood distribution poles up to 50 feet tall in this area would marginally affect the views of motorists driving on SR 46, the distribution line would not be substantially out of character for the area. There are existing distribution lines along and across portions of SR 46 in proximity to the reasonably foreseeable distribution components and the new distribution line segment would complete a gap in the existing system. Thus, there would not be a substantial change from existing conditions. Additionally, construction and operation of the reasonably foreseeable distribution components would not require or result in substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along SR 46. With respect to ultimate substation buildout, as described in Chapter 2, installation of additional transmission and distribution transformers and associated equipment within the 70 kV and 230 kV substations is assumed to not result in any additional permanent ground disturbance or increase the height of the substation. Therefore, impacts under significance criterion B would be **less than significant.**

As discussed above, the reasonably foreseeable distribution components, particularly the new distribution line segments, would degrade the existing visual character or quality to some degree since landscapes without electric distribution infrastructure are generally regarded more pleasing than those with such infrastructure. However, given that the reasonably foreseeable distribution components would complete gaps in the existing distribution network, which already contains these types of facilities, they would not substantially change existing conditions. Additionally, portions of the reasonably foreseeable distribution components, such as the distribution line segment north of the Estrella Substation site, which would pass through agricultural fields, would not be readily viewable from public locations. The ultimate buildout of the Estrella Substation would add further transmission and distribution equipment and structures to the substation, as shown in Figure 4.1-18, which would further impact public views along this portion of Union Road. However, the ultimate buildout of the substation would be only incrementally worse compared to the impact of the initial Estrella Substation buildout, which was evaluated as part of the Proposed Project. This incremental impact would not be considered significant. As a result, overall, public views would not be substantially impacted

from distribution component construction or operation. Impacts under significance criterion C would be **less than significant.**

Figure 4.1-18. Simulated View from Union Road Facing East of the Estrella Substation with Ultimate Buildout of its Transmission and Distribution Components

Source: NEET West and PG&E 2017b

The reasonably foreseeable distribution components would not create substantial new sources of light or glare. In the event construction activities would be required during nighttime hours, implementation of APM AES-1 would minimize adverse effects by requiring that construction lighting is selectively placed and shielded to prevent nighttime glare. The wood distribution poles and conductors would not create glare and no permanent lighting would be installed for the reasonably foreseeable distribution components. Similarly, ultimate substation buildout would not be expected to add substantial new sources of light or glare, as any additional lighting or glare associated with new/additional equipment at the substation would be incremental compared to the initial Estrella Substation development. Therefore, impacts under significance criterion D would be **less than significant.**

Alternatives

No Project Alternative

Under the No Project Alternative, the Estrella Substation and 70 kV power line would not be constructed. Existing electrical transmission facilities in the Paso Robles area would remain. Therefore, this alternative would avoid all adverse aesthetic impacts of the Proposed Project, including any impacts to scenic resources, degradation of the visual character and quality of public views, or creation of permanent sources of light or glare. **No impact** would occur under any of the significance criteria.

Alternative SS-1: Bonel Ranch Substation Site

Alternative SS-1 would be located on a vacant parcel along Estrella Road adjacent to the Estrella River in an agricultural area. The closest residence is approximately 0.5 mile west of the site on Estrella Road. Like the Proposed Project, construction and operation of the substation at this alternative location would not substantially affect scenic vistas. Additionally, the Bonel Ranch

site is located roughly 1.6 miles north of SR 46 and thus the substation facilities at this site would not be visible from SR 46, which is eligible for listing as a scenic highway. No other State-designated scenic highways are located in proximity to Alternative SS-1. Based on review of Google Earth aerial imagery, no major rock outcroppings or historic buildings are present on the site that could be impacted by the construction of Alternative SS-1. Several trees do exist on or close to the site that may require removal; however, as noted above, these trees would not be visible from SR 46 and would not affect this eligible State scenic highway. Therefore, impacts under significance criteria A and B would be **less than significant**.

Development of the substation at the Bonel Ranch site would substantially alter the visual character of this immediate area and its agricultural setting due to the large scale and industrial nature of the substation facilities. Construction activities would also result in temporary adverse effects on public views in the area. However, because viewer concern and exposure is lower in this area (see Table 4.1-1; KOPs 11 and 12), this alternative would have a less severe effect on the area's visual character and visual quality when compared to the Proposed Project. Implementation of **Mitigation Measure AES-1** would help reduce the visual impact of Alternative SS-1 to a less-than-significant level. As a result, impacts under significance criterion C would be **less than significant with mitigation.**

Alternative SS-1 would involve the same construction activities and include the same operational components (e.g., permanent lighting) as the proposed Estrella Substation, described in Impact AES-4. As such, construction activities could temporarily create new sources of light affecting nighttime views due to the need to conduct some activities at night and illuminate work areas. Like the Proposed Project, this substation would include permanent lighting inside the facility and at the entry/exit gates, which would comply with Dark Sky rating recommendations. The transmission structures associated with the substation at the Alternative SS-1 site could potentially create substantial sources of glare, which would be a significant impact. Implementation of **Mitigation Measure AES-1** would reduce this impact to a level that is less than significant. As a result, impacts under significance criterion D would be **less than significant with mitigation.**

Alternative PLR-1A: Estrella Route to Estrella Substation

As discussed in Section 4.1.4, the Alternative PLR-1A route traverses land uses primarily consisting of agricultural areas dominated by vineyards and rural residential and urban developments. Public views of the Alternative PLR-1A alignment (existing conditions) are shown in KOPs 10, 14, 15, 16, and 17. Like the Proposed Project, this alternative would not substantially impact scenic vistas, such as the oak-covered hillsides in the greater Paso Robles area. Therefore, impacts under significance criterion A would be **less than significant**.

Alternative PLR-1A would be visible from SR 46 (eligible for listing as a state scenic highway), as the alignment would cross SR 46 near Branch Road. The reconductoring segment of Alternative PLR-1A would cross SR 46 at the same location as the Proposed Project's 70 kV reconductoring segment. However, because Alternative PLR-1A would follow the existing 230/500 kV transmission corridor across SR 46 at Branch Road, the new 70 kV power line would have an incremental visual impact on views from this highway. The reconductoring segment would not substantially alter existing views for motorists traveling on SR 46 because construction would replace already existing poles and reconductor existing lines. Additionally, neither the new 70 kV power line nor the reconductoring segment of Alternative PLR-1A would require or result in

substantial damage to scenic resources within or near the SR 46 corridor. Based on review of Google Earth aerial imagery, there are no significant trees, rock outcroppings, or historic buildings at the Branch Road crossing that could be affected by Alternative PLR-1A construction. Refer to the discussion under Impact AES-2 for why the reconductoring segment would not substantially affect scenic resources near SR 46. Overall, impacts under significance criterion B would be **less than significant.**

The new power line under Alternative PLR-1A would change the visual character and quality of views of the rural landscape and would be noticeable to motorists and residences in the surrounding area. Additionally, construction activities would result in temporary adverse effects on public views, such as from the presence of construction equipment and establishment of staging and work areas. In comparison to the Proposed Project, Alternative PLR-1A would traverse areas with lower viewer exposure and visual sensitivity where distribution lines currently exist. More specifically, it would avoid significant adverse effects on the existing visual character and quality of the area along Golden Hill Road in the city of Paso Robles that would result from the Proposed Project's 70 kV route. Nevertheless, the new power line under Alternative PLR-1A would result in adverse effects to the visual character and quality of views of the rural landscape and the surrounding area, which would be a significant impact. Implementation of **Mitigation Measure AES-1** would reduce adverse effects on public views from Alternative PLR-1A by reducing the visual contrast created by the power line structures. As a result, impacts under significance criterion C would be **less than significant with mitigation**.

Alternative PLR-1A would involve the same construction activities as the Proposed Project's 70 kV power line, described in Impact AES-4. As such, construction activities could temporarily create new sources of light affecting nighttime views due to the need to conduct some activities at night and illuminate work areas. Given the longer construction schedule of Alternative PLR-1A, this would result in extended construction-related impacts. Potential adverse impacts, however, would be limited to specific locations because the power line would be constructed in a manner that is segmented. Similar to the Proposed Project, the presence of power line structures could result in glare, creating significant adverse impacts for day and nighttime views. With implementation of **Mitigation Measure AES-1**, the power line structures would have a dulled finish and therefore would not create substantial glare. Further, light impacts would be reduced to less than significant levels through implementation of APM AES-2. Alternative PLR-1A would not include any permanent lighting and the initially shiny specular wires would dull over time. Overall, impacts under significance criterion D would be **less than significant with mitigation.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C would be similar to Alternative PLR-1A, but would have a different starting point at the Bonel Ranch site rather than the Estrella Substation. The Alternative PLR-1C route traverses land uses primarily consisting of agricultural areas dominated by vineyards and rural residential and urban developments. Public views of the Alternative PLR-1C alignment (existing conditions) are shown in KOPs 13, 14, 15, 16, and 17. Like the Proposed Project, this alternative would not substantially affect scenic vistas, including the oak-covered hillsides that occur throughout the greater Paso Robles area. Therefore, impacts under significance criterion A would be **less than significant**.

The new power line segment of Alternative PLR-1C would not cross, or pass in close proximity to, SR 46 (eligible for listing as a state scenic highway) and the new power line components would all be over 1.6 miles away from this highway. The reconductoring segment of Alternative PLR-1C would cross SR 46 at the same location as the Proposed Project's 70 kV reconductoring segment. Since Alternative PLR-1C would not place new facilities in areas that could be viewed by motorists on SR 46, it would not impact public views. The reconductoring segment would not substantially alter existing views for motorists traveling on SR 46 because construction would replace already existing poles and reconductor existing lines. Additionally, neither the new 70 kV power line nor reconductoring segments of Alternative PLR-1A would require or result in substantial damage to scenic resources within or near the SR 46 corridor. See discussion under Impact AES-2 for why the reconductoring segment would not substantially affect rocks or buildings (limited tree impacts may occur) at the location where it would cross SR 46. Overall, impacts under significance criterion B would be **less than significant.**

The new power line under Alternative PLR-1C would change the visual character and quality of views of the rural landscape and would be noticeable to motorists and residents in the surrounding area. Minor Route Variation 1, as compared to the proposed Alternative PLR-1C, would have a somewhat greater visual effect on motorists and residents along Estrella Road. Additionally, construction activities would result in temporary adverse effects on the visual character and quality of public views, such as from the presence of construction equipment and establishment of staging and work areas. In comparison to the Proposed Project, Alternative PLR-1C would traverse areas with lower viewer exposure and visual sensitivity where distribution lines currently exist. More specifically, it would avoid significant adverse effects on the existing visual character and quality of the area along Golden Hill Road in the city of Paso Robles that would result from the Proposed Project's 70 kV route. Nevertheless, the impacts described above for Alternative PLR-1C would be significant. Implementation of **Mitigation Measure AES-1** would reduce adverse effects on public views from Alternative PLR-1C by reducing the visual contrast created by the power line structures. As a result, impacts under significance criterion C would be **less than significant with mitigation**.

Alternative PLR-1C would involve the same construction activities as the Proposed Project's 70 kV power line, described in Impact AES-4. As such, Alternative PLR-1C requires some nighttime construction necessitating temporary new sources of light for the illumination of work areas. Given the longer construction schedule of Alternative PLR-1C, this would result in extended construction-related impacts, but impacts would still be limited to specific locations because the power line would be constructed in a segmented fashion, thereby rendering these impacts less than significant. Light impacts would also be reduced through implementation of APM AES-2. Alternative PLR-1C would not include any permanent lighting and the specular wires would dull over time. The power line structures would have the potential to result in substantial glare, which would be a significant impact. However, Mitigation Measure AES-1 would ensure power line structures would have a dulled finish and therefore would not create substantial glare. Overall, impacts under significance criterion D would be **less than significant with mitigation.**

Alternative PLR-3: Strategic Undergrounding (Both Options)

Alternative PLR-3 involves undergrounding the portion of the Proposed Project's new 70 kV power line that passes through the Golden Hill Road area north of SR 46. As described above for the Proposed Project, the Golden Hill Road area includes a combination of commercial,

industrial and single-family residential uses as well as the Cava Robles RV Park, although this area of Paso Robles and San Luis Obispo County would be considered a non-urbanized area. No identified scenic vistas occur in this area, other than areas of blue oak woodland along the northern portion of the Alternative PLR-3 alignment, which may be considered oak-covered hillsides (as identified in the City of Paso Robles General Plan). Although temporary impacts to scenic views in this area would occur during construction, the underground power line and relatively small (150 foot by 150 foot) transition station would not substantially affect the oak-covered areas over the long term. Therefore, impacts under significance criterion A would be **less than significant**.

As discussed above, there are no State-designated scenic highways in the Paso Robles area; however, SR 46 is eligible for listing as a scenic highway. The southern end of Alternative PLR-3 (both options) would begin approximately 0.25-mile north of SR 46 and continue north-northwest from there. While the 70 kV power line segment under Alternative PLR-3 would be underground, an above-ground transition station would be constructed at this southern terminus of the Alternative PLR-3 alignment including two riser poles. These above-ground structures would constitute a modest change to visual conditions that may be noticeable to motorists traveling on SR 46, but this nominal change (two riser poles) would not be considered substantial because this area is already characterized by existing industrial uses and structures. Construction activities for the transition station and underground line could create some adverse aesthetic effects since such activities would be visible to those passing by the site. However, construction activities would not be substantial because they would be temporary, lasting for a short duration (e.g., 6 months). Neither construction nor operation of Alternative PLR-3 would require or result in substantial damage to scenic resources (e.g., trees, rock outcroppings, and historic buildings) within or near the SR 46 corridor. Therefore, impacts under significance criterion B would be **less than significant.**

No overhead power lines currently occur in the Golden Hill Industrial Park and along Golden Hill Road to the north. Alternative PLR-3 was specifically proposed to avoid the significant adverse aesthetic effects of the overhead Proposed Project 70 kV power line in this area. As such, this underground power line segment would completely avoid the permanent adverse effects on the visual character and quality of the Golden Hill Road area from the Proposed Project, described in Impact AES-3. Alternative PLR-3 would include small (150-foot by 150-foot) transition stations at either end of the alignment with two riser poles at each station, which would have minor, less than significant impacts on existing visual character and quality. Construction activities for Alternative PLR-3, including trenching within public roadways (Engine Way, Wisteria Lane, and Golden Hill Road), would adversely affect public views for the duration of the construction period; however, these effects would be temporary and therefore less than significant. Construction and operation of Alternative PLR-3 also would not conflict with existing zoning (Planned Industrial; which allows transmission structures). Overall, impacts under significance criterion C would be **less than significant.**

Construction activities for Alternative PLR-3 could create new temporary light sources, as some work activities may need to occur at night. While these light sources could affect nighttime views, they would be temporary and would be minimized through implementation of APM AES-2. The relatively minor aboveground electrical facilities at the transition stations would not create substantial glare. While the transition stations may require some permanent lighting (e.g., for security purposes), these lights would comply with Dark Sky recommendations and

would not substantially affect nighttime views. As a result, impacts under significance criterion D would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

Alternative SE-1A would be located along El Pomar Drive adjacent to the existing Templeton Substation. The site is currently used for agricultural purposes and has several oak trees and structures on the site. Like the Proposed Project, construction and operation of the substation at this alternative location would not substantially affect scenic vistas. The substation expansion area is also not located within an area subject to scenic protection standards by the County of San Luis Obispo (NEET West and PG&E 2018). The Templeton Substation Expansion site is located roughly 1.5 miles east of Highway 101, which is eligible for listing as a scenic highway; however, due to distance and intervening topography, the substation facilities at this site would not be visible from Highway 101. Therefore, impacts under significance criteria A or B would be **less than significant**.

Alternative SE-1A would add additional electrical infrastructure where no development currently exists on the site and would be noticeable to motorists along El Pomar Drive (e.g. from KOPs 18 and 19) and likely visible from the residence near KOP 20. Construction activities would also result in temporary adverse effects on public views in the area. This alternative site would result in less adverse effects on visual character and visual quality than the Proposed Project because the new substation would be sited adjacent to an existing substation and the area is already characterized by electrical infrastructure. Nevertheless, the substation under Alternative SE-1A would degrade the existing visual character or quality of public views of the site and surrounding area, which would be a significant impact. Implementation of **Mitigation Measure AES-1** would reduce these impacts on visual character and quality to a level that is less than significant. As a result, impacts under significance criterion C would be **less than significant with mitigation.**

Alternative SE-1A would involve the same construction activities and include the same operational components (e.g., permanent lighting) as the proposed Estrella Substation, described in Impact AES-4. As such, construction activities could temporarily create new sources of light affecting nighttime views due to the need to conduct some activities at night and illuminate work areas. While the substation would include permanent lighting inside the facility and at the entry/exit gates, these would comply with Dark Sky rating recommendations. The transmission structures associated with the substation under Alternative SE-1A could potentially create substantial sources of glare, which would be a significant impact. Implementation of **Mitigation Measure AES-1** would reduce this impact to a level that is less than significant. Overall, impacts under significance criterion D would be **less than significant with mitigation.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Alternative SE-PLR-2 is the 70 kV power line route that would be used to connect the expanded Templeton Substation under Alternative SE-1A to Paso Robles Substation. As discussed in Section 4.1.4, the Alternative SE-PLR-2 alignment passes through agricultural lands, follows the existing 500/230 kV transmission corridor, then passes through scenic rural residential areas along South River Road, and finally traverses urban areas of Paso Robles. Much of the length of Alternative SE-PLR-2 passes through what may be considered oak-covered hillsides, as identified in the City of Paso Robles General Plan, which are considered scenic resources or vistas. The

addition of the power line to these areas under Alternative SE-PLR-2 would adversely affect these open space viewsheds, which would be a significant impact. Implementation of **Mitigation Measure AES-1** would help to alleviate these affects, but nevertheless this impact would remain. As a result, impacts under significance criterion A would be **significant and unavoidable**.

No State-designated scenic highways are located in close proximity to Alternative SE-PLR-2. The nearest eligible State scenic highway is the segment of Highway 101, but this highway is on the other side of the Salinas River and views of the Alternative SE-PLR-2 power line structures from Highway 101 would likely not be available. Therefore, impacts under significance criterion B would be **less than significant**.

The new power line under Alternative SE-PLR-2 would change the visual character and quality of views of the landscape and would be noticeable to motorists and residences in the surrounding area. In particular, the segment along South River Road to Santa Ysabel Avenue would adversely affect the existing visual character and quality of views in this area, as no electrical power lines currently exist in this non-urbanized rural-residential area, which is characterized by mature trees that line the road and rolling hillsides (as seen in KOP 22, Figure 4.1-17). This segment of the power line route would be visible to motorists with fleeting view durations and at varying degrees by nearby residences, which would have longer view durations. The northern portion of Alternative SE-PLR-2 would parallel the existing Templeton-Paso single-circuit 70 kV power line and would be visible to residences and motorists using South River Road. Electric transmission infrastructure already exists along this segment and nearby residents and motorists are accustomed to viewing power lines, thereby reducing the severity of the impact. Additionally, placement of power lines would not conflict with the zoning regulations in this more urbanized portion of the alignment within Paso Robles (power transmission lines are conditionally allowed in the Residential Single Family [R1] zoning district and permitted in the Regional Commercial [RC] district, through which Alternative SE-PLR-2 would pass).

Construction activities also would adversely affect the visual character and quality of views along the length of the Alternative SE-PLR-2 alignment, although these effects would be temporary. Overall, this alternative would substantially degrade the existing visual character and quality of public views of the site and its surroundings, resulting in a significant impact. Implementation of **Mitigation Measure AES-1** would reduce adverse effects on public views from Alternative SE-PLR-2 by reducing the visual contrast created by the power line structures. Nevertheless, the impacts associated with introducing a new power line along a portion of South River Road with moderate-to-high visual quality and where no electric transmission currently exists would still be significant. Therefore, impacts under significance criterion C would be **significant and unavoidable**.

Alternative SE-PLR-2 would involve largely the same construction activities as the Proposed Project's 70 kV power line, described in Impact AES-4. As such, construction activities could temporarily create new sources of light affecting nighttime views due to the need to conduct some activities at night and illuminate work areas. Given the shorter construction schedule of Alternative SE-PLR-2, this would result in somewhat reduced construction-related impacts, and impacts would be limited to specific locations because the power line would be constructed in a linear fashion. Additionally, light impacts would be reduced through implementation of APM AES-2. While new metal overhead power lines could result in substantial glare, which would be a significant impact, implementation of **Mitigation Measure AES-1** would minimize these effects

by ensuring that power line structures have a dulled finish. Further, the shiny specular wires associated with the new power lines would dull over time. Overall, impacts under significance criterion D would be **less than significant with mitigation.**

Alternative BS-2: Battery Storage to Address the Distribution Objective

As described in Chapter 3, *Alternatives Description,* example FTM battery storage sites are identified under Alternative BS-2 for illustrative purposes for this DEIR. FTM battery storage facilities could be constructed at the example FTM sites (1 through 8) or at other sites identified in the future. The aesthetic effects of FTM BESSs sited at the example sites are discussed here for illustrative purposes.

As described in Table 4.1-2, several of the example FTM BESS sites would be visible from public roads where motorists would have fleeting views of the facilities or would be sited in areas surrounded by existing commercial and/or residential uses (e.g., FTM Sites 1, 2, and 3). Views of the potential FTM Site 4 would be primarily limited to faculty and students at Paso Robles High School, while FTM Site 5 would be primarily visible to workers and patrons at industrial businesses near the Paso Robles Municipal Airport. The example FTM Sites 6, 7 and 8 would be sited immediately adjacent to existing substations. As shown in Table 4.1-2, the visual quality and visual sensitivity of these sites varies between low to low-to-moderate. Like the Proposed Project, BESSs sited at the example FTM sites would not be anticipated to adversely affect scenic vistas or scenic resources. Additionally, none of the example FTM sites are located within viewing distance from SR 46 or Highway 101, which are the two eligible state scenic highways in the area.

Depending on the individual facility design and whether the facilities are enclosed or exposed on concrete slabs, Alternative BS-2 could degrade the visual character or quality of public views of some of the potential FTM sites and surroundings. The example FTM sites are located on lands designated Agriculture and Residential Suburban, or zoned Residential Single Family, Regional Commercial, or Airport. As public utility facilities (similar in nature to small substations), the BESSs would be allowable or permitted uses on these land use designations and zoning districts and would not be anticipated to conflict with applicable zoning and other regulations governing scenic quality. BESSs at FTM sites adjacent to existing substations or industrial development (i.e., example FTM Sites 1, 5, 6, 7, and 8) would not be anticipated to substantially degrade the visual character or visual quality because the new facilities would be compatible with nearby existing electrical infrastructure. However, constructing exposed FTM facilities at FTM Sites 2, 3, and 4 would be more likely to be visually inconsistent with surrounding commercial, residential and school uses. As shown in Figure 3-25 of Chapter 3, *Alternatives Description*, BESSs can be tastefully incorporated into new or existing buildings.

Due to the substantially smaller scale of the individual FTM facilities compared to the proposed Estrella Substation, overall light and glare effects of FTM facilities would likely be less than those for the Proposed Project. Additionally, while nighttime construction work could create light sources with temporary adverse effects, these impacts would be reduced through implementation of standard measures to require downward-facing and shielded construction lighting. FTM BESS facilities would likely have some permanent lighting (e.g., for security), but this would not be expected to substantially affect nighttime views.

Overall, because FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third-Party, Behind-the-Meter Solar and Battery Storage

Alternative BS-3 involves installing behind-the-meter (BTM) solar and battery storage facilities that would largely be installed either on or within existing commercial, industrial, and residential buildings. At some locations, facilities may be installed on previously undeveloped portions of a property. The specific locations of BTM facilities are unknown because it is unknown which specific customers will opt into the BTM Resources Program and install BTM resources on their property. Nevertheless, the BTM facilities under Alternative BS-3 would not have a substantial adverse effect on scenic vistas because they would be installed on or within existing buildings (or in adjacent areas) and due to their small individual size. For the same reasons, BTM resources would not substantially affect views from State-designated scenic highway (even if sited in close proximity). Minimal ground disturbance would be required for BTM solar and storage facilities as facilities would be installed primarily on and within existing buildings. In those cases where the BTM facilities are built on previously undeveloped property, minimal vegetation clearing, light grading, and minor excavation is possible; a concrete slab may be installed to support the BTM solar and/or storage facilities or a small enclosed building with a foundation may be constructed to house the storage facilities.

Depending on where BTM facilities are installed, the solar facilities could incrementally alter the visual character or visual quality of a site and its surroundings. It is anticipated that the solar facilities would not be substantially different from those commonly seen on residential and commercial developments. It is possible that BTM facilities could be built within urbanized and non-urbanized areas. In cases where the areas are urbanized, as public utility facilities, the BESSs would be allowable or permitted uses on these land use designations and zoning districts and would not be anticipated to conflict with applicable zoning and other regulations governing scenic quality. In cases where the surrounding areas are non-urbanized, because the BTM sites are unknown, and it is unknown whether the facilities would be enclosed or exposed on a concrete slab; it is not possible to determine whether the BTM facilities could substantially degrade the visual character or quality of the site. Construction of individual BTM facilities could potentially result in adverse visual effects (e.g., vegetation clearing, light grading, and minor excavation), although these would be temporary. The third-party distributed energy resources (DER) provider selected via the Distribution Infrastructures Deferral Framework (DIDF)[1] would be required to follow all local design, siting, and permitting requirements.

Due to the substantially smaller scale of individual BTM facilities compared to the proposed Estrella Substation, overall light and glare effects would be anticipated to be less severe. Solar panels are widely deployed in Paso Robles and elsewhere in California and modern designs do not create substantial glare. Because most BTM storage facilities would be installed within existing buildings, facilities are not likely to create substantial glare or result in additional light

[1] See Chapter 3, *Alternatives Description*, Section 3.3.8, for further details about the DIDF.

sources that could affect nighttime views. In the event that facilities are built outside of or adjacent to an existing building, there is potential for these facilities to result in minimal glare or require installation of additional light (e.g., for security purposes). However, given compliance with local land use and zoning laws, there is no reason to believe these potential impacts would be significant.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines section 15145, no significance conclusion is reached under any of the significance criteria.

4.2 Agriculture and Forestry Resources

4.2.1 Introduction

This section describes the setting and potential impacts on agriculture resources that could occur from the Proposed Project, reasonably foreseeable distribution components, and alternatives. Impacts to agriculture resources under CEQA generally include conversion of agricultural land to non-agricultural uses, conflicts with zoning for agricultural use or Williamson Act contracts, or other changes to the physical environment resulting in a conversion of farmland to non-agricultural use. Because there are no forest lands or timberland in the vicinity of the Proposed Project, reasonably foreseeable distribution components, or alternatives, potential impacts to forestry resources were dismissed from detailed consideration.

4.2.2 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies related to agriculture or forestry resources are applicable to the Proposed Project, reasonably foreseeable distribution components, or alternatives.

State Laws, Regulations, and Policies

Farmland Mapping and Monitoring Program

The California Department of Conservation (CDOC) established the Farmland Mapping and Monitoring Program (FMMP) in 1982, as a non-regulatory program to provide a consistent and impartial analysis of agricultural land use and land use changes throughout California. FMMP now maps agricultural and urban land use for nearly 98 percent of the state's privately held land. FMMP rates and classifies agricultural land according to soil quality, irrigation status, and other criteria. Important Farmland categories are as follows (CDOC 2020a):

Prime Farmland: Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.

Farmland of Statewide Importance: Farmland similar to Prime Farmland, but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.

Unique Farmland: Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards, as found in some climatic zones in California. Land must have been cropped at some time during the 4 years prior to the mapping date.

Farmland of Local Importance: Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

Other FMMP categories include Grazing Land, Urban and Built-Up Land, Other Land, and Water.

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (commonly referred to as the Williamson Act) 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 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.

Government Code Section 51290 states that "(a) it is the policy of the state to avoid, whenever practicable, the location of any federal, state, or local public improvements and any improvements of public utilities, and the acquisition of land therefor, in agricultural preserves," and "(b) it is further the policy of the state that whenever it is necessary to locate such an improvement within an agricultural preserve, the improvement shall, whenever practicable, be located upon land other than land under a contract pursuant to this chapter." However, Section 51293 goes on to list as exempt from the requirements preventing placement of public improvements within Williamson Act contract lands: "the location or construction of any public utility improvement which has been approved by the Public Utilities Commission."

California Farmland Conservancy Program

The California Farmland Conservancy Program is established under Public Resources Code (PRC) Section 10200-10277 to promote the long-term preservation of agricultural lands in California though the use of agricultural conservation easements. In addition to funding provided for agricultural easement acquisition, California Farmland Conservancy Program grant funds are available for projects that develop policy or planning oriented to agricultural land protection, and for improvements to land already under an agricultural conservation easement (e.g., erosion control, riparian area improvements). The program is authorized to accept donations from private entities if CDOC is the designated beneficiary of the donation and it uses the funds for purposes of the program in a county specified by the donor (PRC Section 10231.5).

4.2.3 Environmental Setting

Regional Setting

California is the leading agriculture-producing state, with a total market value of approximately $45.1 billion in agricultural products sold in 2017 (U.S. Department of Agriculture [USDA] National Agricultural Statistics Service [NASS] 2019). The California Department of Food and Agriculture (CDFA) reported $50.3 billion in sales in 2017, a 6.7 percent increase over 2016.

California remained the number one state in cash farm receipts, comprising 13.4 percent of the U.S. total (CDFA 2018).

The Proposed Project, reasonably foreseeable distribution components, and alternatives would be located in San Luis Obispo County, which is the 15th-ranked county in California in terms of overall agricultural production (CDFA 2018). Total crop value in San Luis Obispo County was $924.7 million in 2017, which was a 0.6 percent decrease from the $929.9 million in sales recorded in 2016 (CDFA 2018). The top two commodities in the County in 2017 were wine grapes and strawberries, accounting for 50 percent of the total combined value of the County's agricultural industry. Wine grape sales totaled $268 million (~29 percent) and fresh strawberries were valued at $200 million (~22 percent). Other 2017 top 10 commodities in San Luis Obispo County included: vegetables ($105.9 million), cattle and calves ($43.2 million), broccoli ($43.0 million), nursery plants ($33.1 million), processing strawberries ($28.2 million), avocados ($27.3 million), cut flowers ($27.2 million), and fruits and nuts ($26.2 million) (CDFA 2018). San Luis Obispo County has a total of 397,187 acres of Important Farmland, including 41,188 acres of Prime Farmland (CDOC 2016a).

Existing Agricultural Uses and Zoning

The proposed Estrella Substation would be located on one of five contiguous parcels comprising Steinbeck Vineyards & Winery. The proposed substation would be located on an approximately 15-acre portion of an existing 98-acre parcel (APN 015-053-011) that currently supports vineyards and is surrounded on all sides by vineyards and other agricultural uses (e.g., wineries, orchards, dry farming, grazing) (NEET West and PG&E 2017). The proposed substation site and all surrounding areas are within the County's Agriculture land use designation (refer to Section 4.11, "Land Use and Planning" for additional discussion of land use designations and zoning).

Portions of the Proposed Project's new 70 kV power line segment would pass through areas of existing agricultural uses, including vineyards, orchards, dry farming, and grazing lands, as well as agricultural accessory uses within rural residential areas (NEET West and PG&E 2017). Other portions would be constructed within existing and new utility corridors. 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 (NEET West and PG&E 2017). 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 extends along the boundary between an Agriculture and Residential Rural designation). Within the City of Paso Robles, a portion of the new power line segment extends adjacent to a Residential Agriculture (RA) zoning district in the eastern portion of the city. The majority of the Proposed Project's 70 kV power line reconductoring segment would extend through urbanized areas in the City of Paso Robles where there are minimal existing agricultural uses, although 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) (NEET West and PG&E 2017).

The reasonably foreseeable distribution components would pass through largely agricultural areas, as well as along road rights-of-way. In particular, the southern new distribution line segment would be installed along an existing dirt road through agricultural fields north of the proposed Estrella Substation site. A portion of the northern new distribution line segment also

would pass through existing agricultural fields (see Figure 2-10 in Chapter 2, *Project Description*). These components would largely occur in the County's Agriculture designation.

Of the alternatives under consideration that are located entirely or partially outside of the City of Paso Robles limits (Alternatives SS-1, PLR-1A, PLR-1C, SE-1A, and SE-PLR-2), these alternatives are primarily within the County's Agriculture or Residential Rural land use designations. In particular, both the Bonel Ranch Substation Site (Alternative SS-1) and Templeton Substation Expansion Site (Alternative SE-1A) are designated for Agriculture and currently under agricultural production, the former of which is used to grow alfalfa. The majority of the lengths of the new and reconductored power line segments under Alternatives PLR-1A and PLR-1C would pass through active agricultural lands designated for Agriculture, as shown on Figure 4.11-1 in Section 4.11, "Land Use and Planning." Portions of the Alternative SE-PLR-2 route would pass through agricultural lands, as well as lands designated Residential Rural by the County. Alternative PLR-3 (both options) would not be located on any lands currently under agricultural production or zoned/designated for agriculture use. Of the example FTM sites under Alternative BS-2, only FTM Site 6 would be located on lands currently under agricultural production and designated for agriculture (the example FTM Site 6 would be in the same location as Alternative SE-1A).

Important Farmland

As noted above, San Luis Obispo County as a whole had 397,187 acres of Important Farmland, including 41,188 acres of Prime Farmland, as of 2016. Table 4.2-1 shows the breakdown of Important Farmland on the proposed Estrella Substation site.

Table 4.2-1. FMMP Acreage at the Estrella Substation Site

FMMP Category	Area (acres)	Percentage of Substation Site
Farmland of Statewide Importance	2.66	17%
Unique Farmland	11.70	77%
Farmland of Local Potential	0.70	5%
Grazing Land	0.11	<1%
Total	**15.17**	**100%**

Source: CDOC 2016b

As shown in Table 4.2-1, approximately 17 percent (2.66 acres) of the site is Farmland of Statewide Importance, while 77 percent (11.70 acres) is Unique Farmland and a small percentage is Farmland of Local Importance and Grazing Land. FMMP mapping at the proposed Estrella Substation site and throughout the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives is shown in Figure 4.2-1.

Some portion of the Proposed Project's 70 kV power line route extends through every mapped category of Important Farmland. In particular, the portion of the new power line segment along Union Road and south of SR 46 passes primarily through Unique Farmland and Farmland of Local Potential, with small areas mapped as Farmland of Statewide Importance (see Figure 4.2-1).

Additionally, the northwestern portion of the new power line segment passes through areas of Farmland of Local Potential, Unique Farmland, Farmland of Statewide Importance, and a small area of Prime Farmland. The Proposed Project's reconductoring segment extends predominantly through Grazing Land and Urban and Built-up Land. The southern reasonably foreseeable new distribution line would extend through Unique Farmland, while the remainder of the reasonably foreseeable distribution components would not be located on mapped Important Farmland.

Both Alternative SS-1 and SE-1A sites would be on lands mapped as Farmland of Local Importance as well as Farmland of Local Potential. Similar to the proposed 70 kV power line segment, Alternatives PLR-1A and PLR-1C would extend through every mapped category of Important Farmland. Alternative SE-PLR-2 would extend through every mapped category except Prime Farmland and Unique Farmland. Alternative PLR-3 (both options) would occur primarily on Farmland of Local Potential, Grazing Land, and Urban and Built-up Land. Example FTM Sites 1 to 4 and 6 to 8 under Alternative BS-2 would be located on lands mapped as Farmland of Local Potential, Urban and Built-up Land, and Other Land, while the example FTM Site 5 would be located on Farmland of Local Importance.

Williamson Act Contract Lands

The entire 98-acre Steinbeck Vineyards & Winery parcel, on which the proposed Estrella Substation would be located, is currently subject to a Williamson Act contract (NEET West and PG&E 2017; CDOC 2016c). This contract is active and no non-renewal or cancellation process has been initiated. 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. Figure 4.2-2 shows lands under Williamson Act contracts in the Proposed Project, reasonably foreseeable distribution components, and alternatives vicinity. Approximately 1.5 miles of the Proposed Project 70 kV power line route would extend through parcels currently subject to a Williamson Act contract. These lands are primarily located along the easternmost portion of the 70 kV Power Line route near the proposed substation. No Williamson Act contracts along the Proposed Project 70 kV power line route are currently in the non-renewal process.

As shown on Figure 4.2-2, the land through which the southern reasonably foreseeable new distribution line would be installed is under a Williamson Act contract. With respect to the alternatives, approximately 1.1 miles of the length of the Alternative PLR-1A new power line route would extend through parcels currently subject to a Williamson Act Contract. Additional Williamson Act lands are located along the Alternative PLR-1A/PLR-1C reconductoring segments. No Williamson Act lands are located on or in close proximity to Alternatives SS-1, PLR-3, SE-1A, SE-PLR-2, or BS-2 (example FTM sites).

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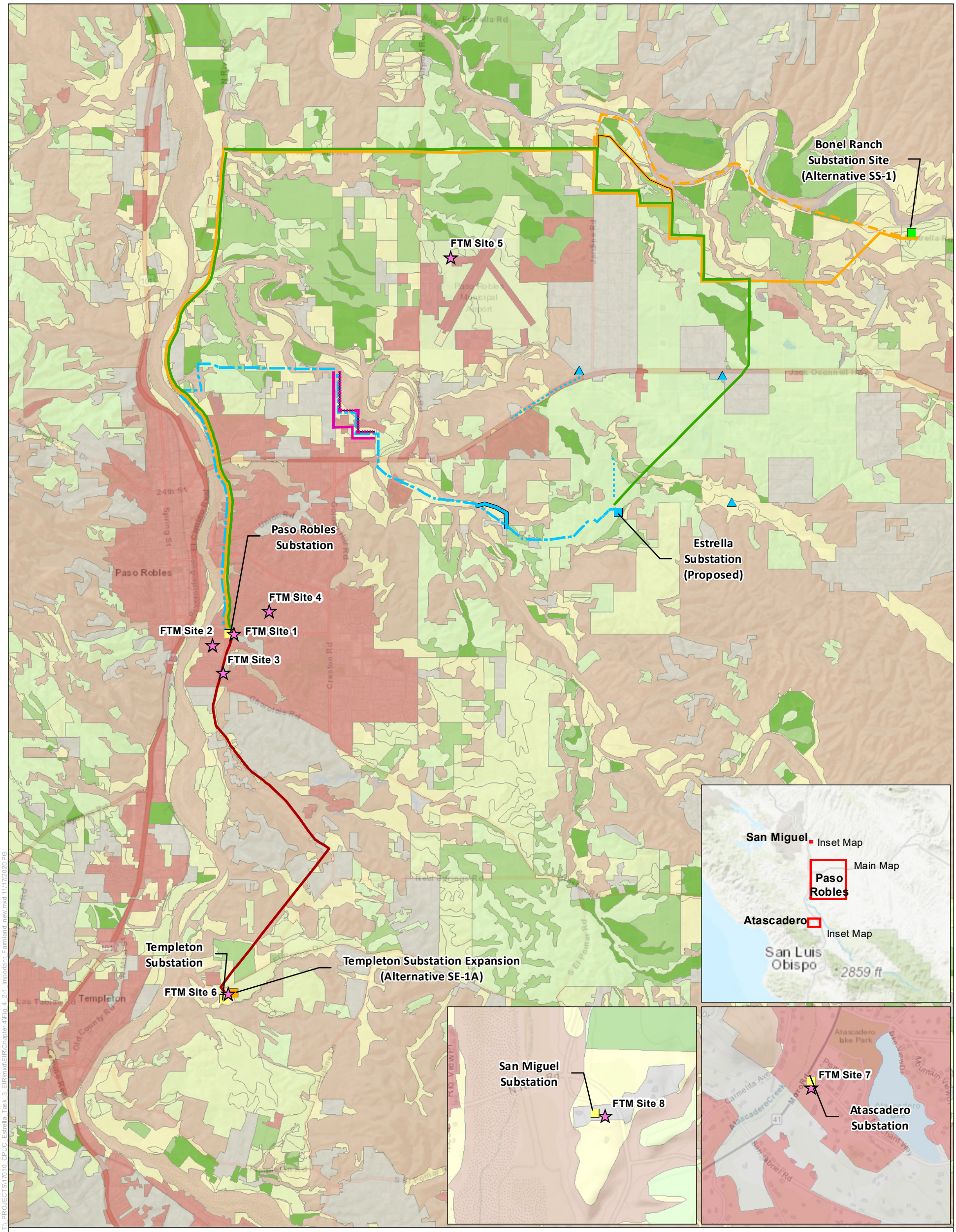

Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Farmland Mapping and Monitoring Program

- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Farmland of Local Importance
- Farmland of Local Potential
- Grazing Land
- Urban and Built-up Land
- Other Land

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.2-1
Important Farmland

Source: ESRI 2018, PG&E 2019, SCWA 2017, CDOC FMMP 2016

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and
Paso Robles Area Reinforcement Project

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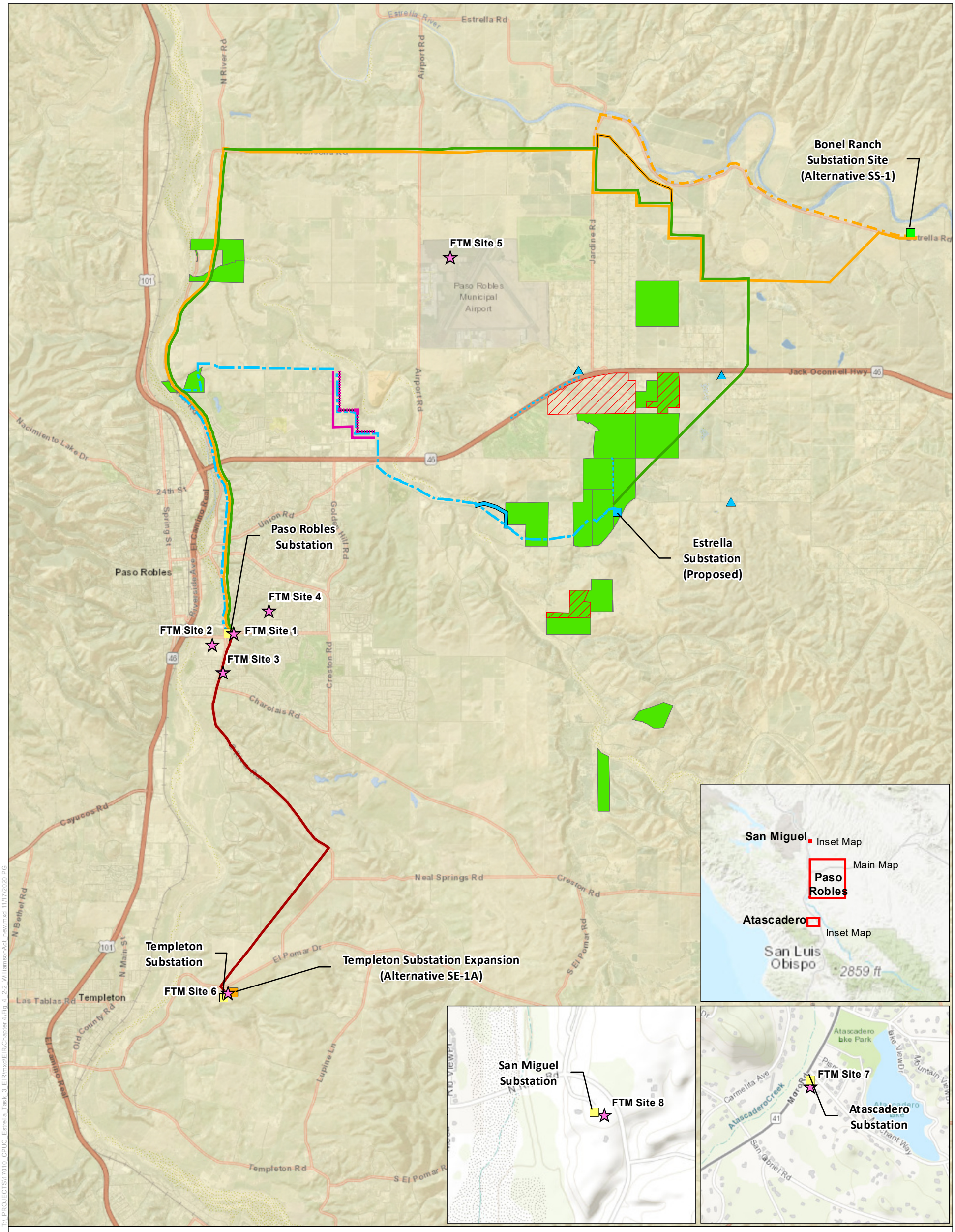

Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Williamson Act Lands

- Williamson Act Non-Renewal
- Williamson Act Lands (2016)

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.2-2
Williamson Act Lands

Source: ESRI 2018, PG&E 2019, SCWA 2017, CDOC 2016

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and
Paso Robles Area Reinforcement Project

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4.2.4 Impact Analysis

Methodology

The analysis of agriculture and forestry resource impacts was both quantitative and qualitative in nature and involved comparing aspects of the Proposed Project, reasonably foreseeable distribution components, and alternatives to the significance criteria described below. The analysis considered the existing laws, regulations, and policies described in Section 4.2.2, "Regulatory Setting" and in Appendix A, as well as the existing land uses and agricultural resources described in Section 4.2.3, "Environmental Setting."

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in a significant impact on agriculture and forestry resources if they would:

A. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to nonagricultural 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 PRC Section 12220[g]), timberland (as defined by PRC 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 in a manner that will significantly affect timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, or other public benefits; or

E. Involve other changes in the existing environment that, because of their location or nature, could result in a conversion of Farmland to a nonagricultural use.

Because there are no forest lands or timberland in the vicinity of the Proposed Project, reasonably foreseeable distribution components, or alternatives, criteria "C" and "D" above are dismissed from detailed consideration.

Environmental Impacts

Proposed Project

Impact AG-1: Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use – *Significant and Unavoidable*

The proposed substation site and portions of the 70 kV powerline route are located on areas of Important Farmland and the proposed substation site is currently an active vineyard. Therefore, installation of the Proposed Project components would result in conversion of agricultural lands

to non-agricultural uses. Additionally, staging areas and temporary work areas (e.g., pole work area, pull sites) would be sited on lands under agricultural use and/or mapped as Important Farmland, resulting in temporary impacts to these uses. Table 4.2-2 shows the permanent agricultural land conversion and temporary impacts to agricultural land that would occur as a result of the Proposed Project.

Table 4.2-2. Agricultural Land Impacts from the Proposed Project

FMMP Category	Estrella Substation (acres)	Power Line Route (acres)	Total (acres)
Permanent Conversion			
Prime Farmland	-	<0.01	<0.01
Farmland of Statewide Importance	2.66	<0.01	2.66
Unique Farmland	11.70	0.06	11.76
Farmland of Local Importance	-	0.02	0.02
Farmland of Local Potential	0.70	0.25	0.95
Grazing Land	0.11	0.29	0.40
Total	**15.17**	**0.62**	**15.79**
Temporary Impacts			
Prime Farmland	-	0.69	0.69
Farmland of Statewide Importance	0.32	4.58	4.90
Unique Farmland	5.90	19.38	25.28
Farmland of Local Importance	-	5.71	5.71
Farmland of Local Potential	-	40.76	40.76
Grazing Land	0.02	21.10	21.12
Total	**6.24**	**92.22**	**98.46**

Source: CDOC 2016b

Permanent conversion of agricultural land would occur from removal of existing vineyards at the substation site and removal of existing vineyard and row crops for the placement of lattice steel towers (LSTs), tubular steel poles (TSPs), and light-duty steel poles (LDSPs) as part of the 70 kV power line route construction. The entire substation site would be graded and developed as part of the substation construction, which would involve removal of all the vineyard crops currently on the site. Permanent conversion of agricultural land along the Proposed Project's 70 kV power line would occur within the immediate footprint of individual poles, as well as 10-foot radius around each pole that would be maintained clear of vegetation. As shown in Table 4.2-2, the Proposed Project (substation and power line) would permanently convert 2.66 acres of Farmland of Statewide Importance and 11.76 acres of Unique Farmland to non-agricultural uses. Additionally, 0.69 acres of Prime Farmland, 4.9 acres of Farmland of Statewide Importance, and 25.28 acres of Unique Farmland would be temporarily affected by the

Proposed Project construction activities. Temporary effects include temporary loss or destruction of crops, placement of rock and materials, compaction of soil from heavy equipment and vehicles, and removal of topsoil.

The permanent conversion of Important Farmland to non-agricultural uses that would occur from development of the Proposed Project would constitute a significant impact. Land with the high-quality soils and characteristics necessary to produce high yields of the State's valued produce is a limited resource, and Important Farmland is under continued threat from urbanization pressures throughout California. To reduce this impact, **Mitigation Measure AG-1** would be implemented, which would require contribution of funds to the California Farmland Conservancy Fund to support conservation of agricultural land in San Luis Obispo County. Implementation of this mitigation measure would help ensure protection and preservation of high-quality agricultural lands elsewhere in the County; however, this compensatory mechanism would not fully offset the significant impact because it would not create any new Important Farmland (rather, it would protect existing agricultural land). As such, the acreage lost due to the Proposed Project would still be lost permanently. Therefore, this impact would remain significant.

With respect to temporary impacts on Important Farmland, the Applicants would implement APM AG-1, which would require that the Applicants coordinate with farmers, ranchers, and landowners to schedule Proposed Project construction activities in a manner that avoids conflicts with harvest and planting periods, to the extent feasible, and that minimizes disruptions to agricultural operations. Additionally, following construction, all areas temporarily disturbed by the Proposed Project would be restored by the Applicants to the extent practicable, including returning areas to their original contours and drainage patterns (see Chapter 2, Section 2.5.5, "Cleanup and Restoration"). While these measures would reduce the severity of temporary impacts, the temporary impacts to agricultural lands could still be significant if removed crops were not replanted and/or if the long-term productivity of these areas were adversely affected (e.g., due to soil compaction). To reduce these potentially significant impacts, **Mitigation Measure AG-2** would be implemented, which would require that the Proposed Project Applicants restore agricultural lands following construction activities to pre-project conditions, including replacement of topsoil/crops and de-compaction of soils, if necessary. This mitigation measure would avoid any long-lasting or residual impacts on agricultural land from the Proposed Project construction activities, so construction impacts on agricultural lands would be less than significant.

Overall, in spite of implementation of mitigation measures, the permanent loss of agricultural land that would occur from the Proposed Project would remain a significant impact. No other feasible mitigation measures were identified to reduce this impact to a level that is less than significant. Therefore, this impact is **significant and unavoidable**.

Mitigation Measure AG-1: Provide Compensation for Loss of Agricultural Land.

HWT and PG&E, prior to the completion of Proposed Project or alternative construction, shall contribute sufficient funds (i.e., adequate to support the conservation ratio described below) to the California Farmland Conservancy Program to compensate for the loss of Farmland of Statewide Importance and Unique Farmland that would occur from the Proposed Project or alternatives. The California Farmland Conservancy

Program is established under PRC Sections 10200-10277 to promote the long-term preservation of agricultural lands in California though the use of agricultural conservation easements. The amount of HWT's and PG&E's contribution shall ensure the conservation of one acre of agricultural land in San Luis Obispo County for each acre of agricultural land converted by the Proposed Project or alternatives, based on the market price for the commensurate agricultural land at the time that the impacts occur.

Mitigation Measure AG-2: Restore Agricultural Land Temporarily Impacted by Construction Activities.

HWT or PG&E shall ensure that agricultural land temporarily impacted by construction activities is adequately restored following completion of construction to pre-project conditions. These include areas impacted from establishment of temporary staging and storage areas, installation of the underground fiber optic cable link, installation of the 230 kV interconnection structures, preparation and temporary use of pull sites and crossing guard structures, and preparation and use of helicopter landing zones. Restoration of sites will involve removing any rock or material imported to stabilize the site, replacement of topsoil, de-compacting any soil that has been compacted by heavy equipment, and re-planting of agricultural crops. The responsibility of performing these various tasks may be stipulated in an agreement between HWT, PG&E, and the landowner(s) completed for the Proposed Project or alternatives. If a landowner is better equipped or prefers to replant crops or perform other tasks themselves, then HWT and PG&E shall provide just compensation for this work.

Impact AG-2: Conflict with existing zoning for agricultural use or a Williamson Act contract – *Significant and Unavoidable*

As described in Section 4.2.3, the entire proposed Estrella Substation site and portions of the 70 kV power line route are within the County's Agriculture land use designation. Additionally, portions of the power line route would border or pass through the City's Agriculture and Residential Agriculture zoning districts. The Proposed Project components would not further the fundamental purpose of these land use designations and zoning districts, which is to encourage and protect agricultural uses in these areas; however, transmission lines and public utility facilities are allowed uses in all City and County land use and zoning categories (see Section 4.11, "Land Use and Planning" for further discussion). Therefore, the Proposed Project would not conflict with existing zoning for agricultural use.

The entire substation site and portions of the 70 kV power line route would be located on land under Williamson Act contracts. As described in the PEA, based on the utility exemption in the Williamson Act, the approximately 15-acre substation site would be created as a separate legal parcel and removed from the larger 98-acre Williamson Act contract (NEET West and PG&E 2017). The existing contract would 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 (NEET West and PG&E 2017).

The County of San Luis Obispo's Rules of Procedure to Implement the California Land Conservation Act of 1965 (i.e., Williamson Act) identify 20 to 40 acres as the minimum acreage

for parcels or contiguous parcels of prime land[1] to qualify for an agricultural preserve (County of San Luis Obispo 2019). Therefore, the reduction of the current 98-acre Williamson Act parcel down to 83 acres would not disqualify the proposed 15-acre substation parcel as an agricultural preserve according to San Luis Obispo County. However, placing the substation within the existing parcel under Williamson Act contract would conflict with that contract, including its underlying intent, which is to preserve agricultural land in agricultural use. Although **Mitigation Measure AG-1** and **Mitigation Measure AG-2** would be implemented, a significant impact would still occur. No feasible mitigation is available that could create new and equivalent farmland to replace the Williamson Act contract land, and thus, this impact would be significant and unavoidable.

While the substation would substantially conflict with the existing Williamson Act contract on the substation site, the small areas of permanent conversion of agricultural lands that would occur at the locations of new 70 kV power line poles would not substantially affect the status of the existing Williamson Act contract parcels. Electric facilities are identified under Government Code Section 51238 as a compatible use on lands under a Williamson Act contract. Therefore, the effects of the 70 kV power line would not be significant.

Overall, construction and operation of the Proposed Project components would conflict with a Williamson Act contract. Therefore, this impact would be **significant and unavoidable**.

Impact AG-3: Involve other changes in the existing environment that, because of their location or nature, could result in a conversion of Farmland to a nonagricultural use – *Less than Significant*

The Proposed Project would not involve any other changes that, because of their location or nature, could result a conversion of Farmland to a non-agricultural use. As noted above, Important Farmland has generally been on the decline in California (CDOC 2020b) (although some increases in certain Farmland categories have occurred in San Luis Obispo County in recent years [CDOC 2014]) and is continually subject to urbanization pressures. As such, often, with increasing urbanization and development, there is potential for loss of Farmland to non-agricultural uses. While the Proposed Project, with buildout of the reasonably foreseeable distribution components, would accommodate future growth in the Paso Robles area, potentially resulting in conversion of agricultural land to non-agricultural uses, it would not directly cause this growth. As discussed in Section 4.14, "Population and Housing," planners at the City of Paso Robles anticipate growth to occur in the area south of the airport and south of

[1] The definition of prime land under the County of San Luis Obispo Rules of Procedure to Implement the California Land Conservation Act of 1965 (County of San Luis Obispo 2019) includes:

1. Lands with Natural Resources Conservation Service land capability rating of Class 1 or Class 2 (all land 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.

SR-46, irrespective of the Proposed Project, and which would generally follow the City of Paso Robles General Plan.

Based on the above analysis, this impact would be **less than significant.**

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

The reasonably foreseeable distribution components, in particular the southern new distribution line segment, would pass through agricultural areas mapped as Unique Farmland and subject to an existing Williamson Act contract. However, this new distribution line segment would be installed along an existing dirt road through the agricultural property and the small-diameter, direct-embedded distribution poles would not reasonably result in substantial conversion of any of this Farmland. Likewise, the presence of the pole structures would not in any way conflict with zoning for agricultural use or the Williamson Act contract. The temporary impacts to agricultural uses during construction of the reasonably foreseeable distribution components (e.g., installation of individual distribution poles, stringing and pulling of the conductor, etc.) would be minimized through implementation of APM AG-1. The northern reasonably foreseeable new distribution line segment would be installed primarily within the median of SR-46 and would not substantially affect Important Farmland, zoning for agricultural uses, or Williamson Act contracts. Similarly, the additional 21/12 kV pad-mounted transformers would be installed along existing roads and would not affect any agricultural uses.

With respect to ultimate substation buildout, installation of additional transmission and distribution transformers and associated equipment within the 70 kV and 230 kV substations is assumed to not result in any additional permanent ground disturbance. However, construction of an additional 230 kV interconnection under the ultimate buildout scenario would involve some conversion of Farmland due to the footprints of the LSTs, although precise acreages are unknown at this time and impacts are speculative. Additionally, construction of additional distribution feeders and 70 kV lines from the Estrella Substation in the future could impact Farmland, zoning for agricultural use, and Williamson Act lands, but these impacts are speculative at this time. Overall, impacts under significance criteria A and B would be **less than significant.**

As discussed above under Impact AG-3, the Proposed Project, reasonably foreseeable distribution components, and ultimate substation buildout would accommodate anticipated future growth by providing additional electric distribution service capacity to the Paso Robles area. Given that urbanization is a major cause of ongoing losses of Important Farmland (CDOC 2020b), some of this future growth may result in conversion of Important Farmland to non-agricultural use. However, while the Proposed Project, reasonably foreseeable distribution components, and ultimate substation buildout would accommodate growth, the construction and operation of these facilities would not directly cause growth. Therefore, impacts under significance criterion E would be **less than significant.**

Alternatives

No Project Alternative

Under the No Project Alternative, no substation or 70 kV power line would be constructed. Therefore, no direct conversion of Important Farmland to non-agricultural use would occur and the Williamson Act parcel containing the proposed Estrella Substation site would remain unchanged from existing conditions. Overall, **no impact** would occur under significance criteria A, B, or E.

Alternative SS-1: Bonel Ranch Substation Site

The Alternative SS-1 site would be located on areas of Farmland of Local Importance, as well as Farmland of Local Potential, and is currently used to grow alfalfa. Placement of a substation in this location would result in permanent conversion of roughly 15 acres of these agricultural lands to non-agricultural uses. As part of the substation site preparation and grading, all of the existing crops in the substation footprint would be removed and the soil would be removed/graded to the construction specifications. Additionally, temporary impacts to agricultural lands adjacent to the substation site would occur due to establishment of staging areas and work areas, including tower work areas for installation of the 230 kV interconnection towers. While the substation would convert agricultural lands to non-agricultural uses, the Farmland of Local Importance and Farmland of Local Potential classifications are not considered significant under significance criterion A. Although this land is identified as important to the local agricultural economy, it is generally inferior to Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. As a result, the permanent conversion of roughly 15 acres of agricultural land that would occur under Alternative SS-1 would be less than significant. Additionally, implementation of APM AG-1 would reduce the temporary effects of construction on the ongoing agricultural uses on the remainder of the property. Therefore, impacts under significance criterion A would be **less than significant.**

The Alternative SS-1 site is designated for Agriculture by the County. Although the substation under Alternative SS-1 would not fulfill the fundamental intent of the County's Agriculture designation to promote agricultural uses, it would not conflict with this land use designation. As discussed under Impact AG-2, transmission lines and public utility facilities are allowed uses in all City and County land use and zoning categories. Therefore, Alternative SS-1 would not conflict with existing zoning for agricultural use. The Bonel Ranch parcel is not under a Williamson Act contract; therefore, there would be no potential to conflict with a Williamson Act contract. As a result, impacts under significance criterion B would be **less than significant.**

As discussed above under Impact AG-3, a new substation along with buildout of distribution components would accommodate anticipated future growth by providing additional electric distribution service capacity to the Paso Robles area. Given that urbanization is a major cause of ongoing losses of Important Farmland (CDOC 2020b), some of this future growth may result in conversion of Important Farmland to non-agricultural use. However, while the substation and distribution components would accommodate the growth, they would not directly cause it. Therefore, impacts under significance criterion E would be **less than significant.**

Alternative PLR-1A: Estrella Route to Estrella Substation

The Alternative PLR-1A alignment would extend through areas of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Farmland of Local Potential, including agricultural areas dominated by vineyards. The 70 kV power line structures would primarily be installed along existing roads (e.g., Wellsona Road), as well as within the existing 500/230 kV transmission corridor, but individual pole foundations would still result in small areas of permanent agricultural land conversion to non-agricultural uses. Based on GIS analysis, the Alternative PLR-1A 70 kV power line would permanently impact less than 0.5 acre of Prime Farmland, less than 1.5 acre of Farmland of Statewide Importance, and roughly 2.5 acres of Unique Farmland. Temporary impacts to agricultural lands would occur at the location of staging areas, pole work areas, pulling sites, etc. Alternative PLR-1A also could impact agricultural lands due to the need to establish permanent or temporary access roads to pole locations for conducting maintenance.

While permanent conversions of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland from Alternative PLR-1A would be both small in acreage and isolated at pole locations spaced hundreds of feet apart (and, therefore, unlikely to substantially affect operations in the remainder of affected fields); these conversions would still be considered significant. Implementation of **Mitigation Measure AG-1** would reduce the severity of these impacts, but not to a level that is less than significant. No other feasible mitigation is available to reduce this significant impact. Additionally, temporary impacts to Prime Farmland, Farmland of Statewide Importance, and Unique Farmland would be significant if agricultural uses/crops were not adequately restored following construction and/or if soil productivity were adversely affected over the long term (e.g., due to soil compaction). Implementation of APM AG-1 would reduce the severity of the temporary effects of construction on the agricultural uses along the Alternative PLR-1A alignment, and **Mitigation Measure AG-2** would reduce potential for adverse long-term construction-related impacts (see discussion under Impact AG-1). Due to the permanent conversion of Farmland, however, impacts under significance criterion A would be **significant and unavoidable.**

The Alternative PLR-1A alignment would primarily extend through the County's Agriculture land use designation, with a small portion in Residential Suburban. Within the City of Paso Robles, a small portion of the reconductoring segment for Alternative PLR-1A would be within the City's Agriculture zoning district, with the remainder extending through Residential Single Family, Residential Duplex/Triplex, and Commercial-General Retail (the same as the Proposed Project 70 kV reconductoring segment). As discussed under Impact AG-2, transmission lines and public utility facilities are allowed uses in all City and County land use and zoning categories. Therefore, Alternative PLR-1A would not conflict with existing zoning for agricultural use. Small portions of the Alternative PLR-1A alignment would cross through land under Williamson Act contracts (see Figure 4.2-2). However, as described in Impact AG-2, electric facilities are identified under Government Code Section 51238 as a compatible use on lands under a Williamson Act contract, and the individual poles would not substantially affect the Williamson Act contract lands. As a result, impacts under significance criterion B would be **less than significant.**

Alternative PLR-1A, when combined with the Estrella Substation and distribution components, would accommodate anticipated future growth by providing additional electric distribution service capacity to the Paso Robles area. Given that urbanization is a major cause of ongoing losses of Important Farmland (CDOC 2020b), some of this future growth may result in

conversion of Important Farmland to non-agricultural use. However, while the alternative, Estrella Substation, and distribution components would accommodate the growth, they would not directly cause it. Therefore, impacts under significance criterion E would be **less than significant.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

The Alternative PLR-1C alignment would extend through areas of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Farmland of Local Potential, including agricultural areas dominated by vineyards. The 70 kV power line structures would primarily be installed along existing roads (e.g., Wellsona Road), as well as within the existing 500/230 kV transmission corridor, but individual pole foundations would still result in small areas of permanent agricultural land conversion to non-agricultural uses. Based on GIS analysis, the Alternative PLR-1A 70 kV power line would permanently impact less than 0.25 acre of Prime Farmland, roughly 1 acre of Farmland of Statewide Importance, and less than 1 acre of Unique Farmland. Temporary impacts to agricultural lands would occur at the location of staging areas, pole work areas, pulling sites, etc. Alternative PLR-1C also could impact agricultural lands due to the need to establish permanent or temporary access roads to pole locations for conducting maintenance.

While permanent conversions of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland from Alternative PLR-1C would be of small acreage and occur at isolated pole locations spaced hundreds of feet apart (and therefore, unlikely to substantially affect operations in the remainder of affected fields); these conversions would still be considered significant. Implementation of **Mitigation Measure AG-1** would reduce the severity of these impacts, but not to a level that is less than significant. No other feasible mitigation is available to reduce this significant impact. Temporary impacts to Prime Farmland, Farmland of Statewide Importance, and Unique Farmland could be significant if agricultural uses/crops were not adequately restored following construction and/or if soil productivity were adversely affected over the long term (e.g., due to soil compaction). Implementation of APM AG-1 would reduce the severity of the temporary effects of construction on the agricultural uses along the Alternative PLR-1A alignment. Further, **Mitigation Measure AG-2** would be implemented, which would reduce potential for adverse long-term construction-related impacts (see discussion under Impact AG-1). Due to the permanent conversion of Farmland, impacts under significance criterion A would be **significant and unavoidable.**

The Alternative PLR-1C alignment would primarily extend through the County's Agriculture land use designation, while the reconductoring segment would extend through the same City zoning districts as Alternative PLR-1A's reconductoring segment. As discussed under Impact AG-2, transmission lines and public utility facilities are allowed uses in all City and County land use and zoning categories. Therefore, Alternative PLR-1C would not conflict with existing zoning for agricultural use. Small portions of the Alternative PLR-1C alignment (limited to the reconductoring segment) would cross through land under Williamson Act contracts (see Figure 4.2-2). However, as described in Impact AG-2, electric facilities are identified under Government Code Section 51238 as a compatible use on lands under a Williamson Act contract. Additionally, 70 kV power line poles already exist in these areas and replacement of existing poles under Alternative PLR-1C would not affect Williamson Act contract status. As a result, impacts under significance criterion B would be **less than significant.**

Alternative PLR-1C, when combined with Alternative SS-1 and distribution components, would accommodate anticipated future growth by providing additional electric distribution service capacity to the Paso Robles area. Given that urbanization is a major cause of ongoing losses of Important Farmland (CDOC 2020b), some of this future growth may result in conversion of Important Farmland to non-agricultural use. However, while the alternative, the Alternative SS-1 substation, and distribution components would accommodate the growth, they would not directly cause it. Therefore, impacts under significance criterion E would be **less than significant.**

Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)

The Alternative PLR-3 undergrounding route (both options) would not extend through any areas of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. The routes would pass through some areas of Farmland of Local Importance, Farmland of Local Potential, and Grazing Land, but the 70 kV power line segment under Alternative PLR-3 would be almost entirely underground (other than the small transition stations on either end of the alignments) and would not permanently substantial agricultural land. Much of the lengths of both Alternative PLR-3 options would be installed within existing roads, which would have no effects on agricultural uses. Some temporary impacts to Farmland of Local Importance, Farmland of Local Potential, and Grazing Land would occur from trenching activities and from temporary work areas. Due to the fact that Prime Farmland, Farmland of Statewide Importance, and Unique Farmland would not be affected, this impact would not be significant. Additionally, implementation of APM AG-1 would reduce the severity of the temporary effects on agricultural uses along the Alternative PLR-3 alignments. Therefore, impacts under significance criterion A would be **less than significant.**

The Alternative PLR-3B Option 2 alignment would traverse a small area of the Agriculture zoning district. However, as discussed under Impact AG-2, transmission lines and public utility facilities are allowed uses in the Agriculture zoning district. Therefore, Alternative PLR-3 would not conflict with existing zoning for agricultural use. No portions of either Alternative PLR-3 option would cross parcels under a Williamson Act contracts. Therefore, impacts under significance criterion B would be **less than significant.**

Alternative PLR-3, when combined with the remainder of the Proposed Project and the reasonably foreseeable distribution components, would accommodate anticipated future growth by providing additional electric distribution service capacity to the Paso Robles area. Given that urbanization is a major cause of ongoing losses of Important Farmland (CDOC 2020b), some of this future growth may result in conversion of Important Farmland to non-agricultural use. However, while the alternative, the remainder of the Proposed Project, and the reasonably foreseeable distribution components would accommodate the growth, they would not directly cause it. Therefore, impacts under significance criterion E would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

The Alternative SE-1A site would be located on areas of Farmland of Local Importance, as well as Farmland of Local Potential. Placement of a substation in this location would result in permanent conversion of roughly 15 acres of these agricultural lands to non-agricultural uses. As part of the substation site preparation and grading, any existing crops in the substation footprint would be removed and the soil would be removed/graded to the construction specifications. Additionally, temporary impacts to agricultural lands adjacent to the substation site would occur

due to establishment of staging areas and work areas, including tower work areas for installation of the 230 kV interconnection towers. While the substation would convert agricultural lands to non-agricultural uses, the Farmland of Local Importance and Farmland of Local Potential classifications are not considered significant under significance criterion A. Although this land is identified as important to the local agricultural economy, it is generally inferior to Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. As a result, the permanent conversion of roughly 15 acres of agricultural land that would occur under Alternative SE-1A would be less than significant. Additionally, implementation of APM AG-1 would reduce the temporary effects of construction on the ongoing agricultural uses on the remainder of the property. Therefore, impacts under significance criterion A would be **less than significant.**

The Alternative SE-1A site is designated for Agriculture by the County. Although the substation under Alternative SE-1A would not fulfill the fundamental intent of the County's Agriculture designation to promote agricultural uses, it would not conflict with this land use designation. As discussed under Impact AG-2, transmission lines and public utility facilities are allowed uses in all City and County land use and zoning categories. Therefore, Alternative SE-1A would not conflict with existing zoning for agricultural use. The Templeton Substation Expansion site parcel is not under a Williamson Act contract; therefore, there would be no potential to conflict with a Williamson Act contract. As a result, impacts under significance criterion B would be **less than significant.**

As discussed above under Impact AG-3, a new substation along with buildout of distribution components would accommodate anticipated future growth by providing additional electric distribution service capacity to the Paso Robles area. Given that urbanization is a major cause of ongoing losses of Important Farmland (CDOC 2020b), some of this future growth may result in conversion of Important Farmland to non-agricultural use. However, while the substation and distribution components would accommodate the growth, they would not directly cause it. Therefore, impacts under significance criterion E would be **less than significant.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

The Alternative SE-PLR-2 alignment would extend through a small area of Farmland of Statewide Importance, as well as some areas of Farmland of Local Importance and Farmland of Local Potential. The majority of the 70 kV power line under Alternative SE-PLR-2 would extend through areas of Grazing Land, Other Land, and Urban and Built-Up Land, as shown in Figure 4.2-1. The 70 kV power line structures would primarily be installed along existing roads (e.g., South River Road), as well as within the existing 500/230 kV transmission corridor, but individual pole foundations would still result in small areas of permanent agricultural land conversion to non-agricultural uses. Based on GIS analysis, the Alternative SE-PLR-2 70 kV power line would permanently impact less than 0.3 acre of Farmland of Statewide Importance. Temporary impacts to agricultural lands would occur at the location of staging areas, pole work areas, pulling sites, etc.

While permanent conversions of Farmland of Statewide Importance from Alternative SE-PLR-2 would be of small acreage and occur at isolated pole locations spaced hundreds of feet apart (and therefore, unlikely to substantially affect operations in the remainder of affected fields); these conversions would still be considered significant. Implementation of **Mitigation Measure AG-1** would reduce the severity of these impacts, but not to a level that is less than significant.

No other feasible mitigation is available to reduce this significant impact. Temporary impacts to Farmland of Statewide Importance could be significant if agricultural uses/crops were not adequately restored following construction and/or if soil productivity were adversely affected over the long term (e.g., due to soil compaction). However, implementation of APM AG-1 would reduce the severity of the temporary effects of construction on the agricultural uses along the Alternative PLR-1A alignment. Further, **Mitigation Measure AG-2** would be implemented to reduce potential adverse long-term construction-related impacts (see discussion under Impact AG-1). Due to the permanent conversion of Farmland, impacts under significance criterion A would be **significant and unavoidable.**

The Alternative SE-PLR-2 alignment would primarily extend through the County's Rural Residential and Agriculture land use designations, while the northern portion of the alignment would pass through areas of Paso Robles zoned Residential Single Family and Regional Commercial. As discussed under Impact AG-2, transmission lines and public utility facilities are allowed uses in all City and County land use and zoning categories. Therefore, Alternative SE-PLR-2 would not conflict with existing zoning for agricultural use. No portions of the Alternative SE-PLR-2 alignment would cross through land under Williamson Act contracts. As a result, impacts under significance criterion B would be **less than significant.**

Alternative SE-PLR-2, when combined with Alternative SE-1A and distribution components, would accommodate anticipated future growth by providing additional electric distribution service capacity to the Paso Robles area. Given that urbanization is a major cause of ongoing losses of Important Farmland (CDOC 2020b), some of this future growth may result in conversion of Important Farmland to non-agricultural use. However, while the alternative, the Alternative SE-1A substation, and distribution components would accommodate the growth, they would not directly cause it. Therefore, impacts under significance criterion E would be **less than significant.**

Alternative BS-2: Battery Storage to Address Distribution Need

Of the example FTM sites identified for analysis in the DEIR, only FTM Site 5, 6, and 8 would be located on or adjacent to agricultural land. As shown in Figure 4.2-1, FTM Site 5 would be located on Farmland of Local Importance; FTM Site 6 would be located on Farmland of Local Importance and Farmland of Local Potential, and FTM Site 8 would include areas of Farmland of Local Potential. Placement of FTM BESSs in these example locations would result in permanent conversion of agricultural lands to non-agricultural uses. Because the sizes of individual FTM BESSs are not known at this time and would be based on future load growth in the Paso Robles area, the precise acreage of impacts is not known. The most impactful option would be a 50 megawatt/400 megawatt-hour flow battery at Templeton Substation (i.e., FTM Site 6), which would have a footprint of roughly 9.1 acres. Lithium-ion BESSs at example FTM Sites 5, 6, or 8 would result in substantially less conversion of agricultural land.

Temporary construction-related impacts to Farmland from FTM BESS construction could be significant if agricultural uses/crops within disturbance areas were not adequately restored following construction and/or if soil productivity were adversely affected over the long term (e.g., due to soil compaction). However, implementation of measures to restore temporarily impacted lands would reduce the severity of these effects.

Only the potential FTM Site 6 is on land designated for Agriculture by the County. Remaining example FTM sites are on lands designated/zoned Residential Single Family, Regional Commercial, Airport, Public Facility, and Residential Suburban. Other FTM sites identified or selected in the future could potentially be located on lands designated for agricultural uses in the City or County jurisdiction. As discussed under Impact AG-2, transmission lines and public utility facilities (which would include BESSs) are allowed uses in all City and County land use and zoning categories. Therefore, Alternative BS-2 would not be anticipated to conflict with existing zoning for agricultural use. None of the example FTM sites are under Williamson Act contracts..

The FTM BESSs would provide a similar function to the Proposed Project and reasonably foreseeable distribution components in accommodating anticipated future growth by providing additional electric distribution service capacity to the Paso Robles area. Given that urbanization is a major cause of ongoing losses of Important Farmland (CDOC 2020b), some of this future growth may result in conversion of Important Farmland to non-agricultural use. However, while the FTM BESSs would accommodate the growth, they would not directly cause it.

Overall, because FTM BESS sites were selected for illustrative purposes only, BESS installations have neither been designed nor technologies selected, and the specifics of Alternative BS-2 are unknown, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Behind-the-Meter Solar and Battery Storage

The specific locations of development sites under Alternative BS-3 are unknown; however, individual BTM solar and battery storage facilities would likely be installed on or within existing buildings. In these situations, installation of BTM facilities would have no potential to impact agricultural lands. Even in situations where a commercial, industrial, or residential property owner were to install new BTM facilities on previously undeveloped portions of their property, this would have little potential to result in significant conversion of Important Farmland to non-agricultural uses or conflicts with existing zoning for agricultural use or a Williamson Act contract. In most cases, BTM facilities would be relatively small and would not affect existing land uses. On a cumulative level, installation of multiple BTM facilities would reduce loading within the Paso Robles area and could thereby avoid conventional distribution system investments (e.g., new distribution feeders). In this respect, Alternative BS-3 would serve to reduce the need for future conversions of Farmland to nonagricultural uses.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

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4.3 Air Quality

4.3.1 Overview

This section evaluates the Proposed Project's air quality impacts. The section first describes the air quality regulatory and environmental settings and then evaluates the project's air quality impacts. Regional and local laws and regulations are described in detail in Appendix A. The impact evaluation begins by describing the air quality significance criteria and the methodology used to evaluate significance, and then presents the impact evaluation. Mitigation measures are identified for impacts that are determined to be significant. The impacts analysis also considers the air quality emissions impacts associated with the reasonably foreseeable distribution components and alternatives.

Air quality is described for a specific location as the concentration of various pollutants in the atmosphere. Air quality conditions at a particular location are a function of the type and amount of air pollutants emitted into the atmosphere, the size and topography of the regional air basin, and the prevailing meteorological conditions.

4.3.2 Regulatory Setting

Federal Laws, Regulations, and Policies

Clean Air Act

The federal Clean Air Act (CAA) and the 1990 CAA Amendments govern air quality in the United States and are administered by U.S. Environmental Protection Agency (USEPA). The CAA authorizes USEPA to set limits on the concentrations in the air of certain air pollutants and grants it the authority to place limits on emission sources. USEPA implements a variety of programs under the CAA that focus on reducing ambient air concentrations of pollutants that cause smog, haze, acid rain, and serious health effects and on phasing out ozone-depleting chemicals.

National Ambient Air Quality Standards

As required by the CAA, USEPA has established National Ambient Air Quality Standards (NAAQS) for six major air pollutants. These pollutants, known as criteria air pollutants, are ozone (O_3); particulate matter (PM), specifically PM_{10} (PM with aerodynamic radius of 10 micrometers or less) and $PM_{2.5}$ (PM with aerodynamic radius of 2.5 micrometers or less); carbon monoxide (CO); nitrogen dioxide (NO_2); sulfur dioxide (SO_2); and lead. California also has established ambient air quality standards, known as the California Ambient Air Quality Standards (CAAQS), which generally are more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles. CAAQS are discussed in more detail below in "State Laws, Regulations, and Standards." The federal and state standards for criteria air pollutants are shown in Table 4.3-1.

A basic measure of air quality is whether an air basin is meeting the NAAQS and CAAQS. Areas that do not exceed these standards are designated as being in attainment; areas that exceed

these standards are designated as nonattainment areas (NAAs), and areas for which insufficient data are available to make a determination are designated unclassified. As part of its enforcement responsibilities, USEPA requires each state with NAAs to prepare and submit a State Implementation Plan (SIP) that demonstrates the means by which it will attain the federal standards, and requires that a maintenance plan be prepared for each former NAA for which the state subsequently has demonstrated attainment of the standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs, within the time frame identified in the SIP.

Table 4.3-1. Attainment Status of the State and Federal Ambient Air Quality Standards

Contaminant	Averaging Time	Concentration	State Standards Attainment Status[1]	Federal Standards Attainment Status[2]
Ozone	1-hour	0.09 ppm	N	A (see footnote 3)
	8-hour	0.070 ppm	N	A
Carbon Monoxide	1-hour	20 ppm	A	
		35 ppm		U
	8-hour	9.0 ppm	A	U
Nitrogen Dioxide	1-hour	0.18 ppm	A	
		0.100 ppm[5]		U
	Annual arithmetic mean	0.030 ppm	A	
		0.053 ppm		U
Sulfur Dioxide (SO_2)	1-hour	0.25 ppm	A	
		0.075 ppm		U
	24-hour	0.04 ppm	A	
		0.14 ppm		U
	Annual arithmetic mean	0.030 ppm		U
Particulate Matter (PM_{10})	24-hour	50 µg/m^3	N	
		150 µg/m^3		U/A
	Annual arithmetic mean	20 µg/m^3	N	
Fine Particulate Matter ($PM_{2.5}$)	24-hour	35 µg/m^3		U/A
	Annual arithmetic mean	12 µg/m^3	A	U/A
Sulfates	24-hour	25 µg/m^3	A	

Contaminant	Averaging Time	Concentration	State Standards Attainment Status[1]	Federal Standards Attainment Status[2]
Lead[6]	30-day average	1.5 µg/m^3	A	
	3-months rolling	0.15 µg/m^3		No Attainment Info
Hydrogen Sulfide	1-hour	0.03 ppm	A	
Vinyl Chloride[6] (chloroethene)	24-hour	0.010 ppm	No Attainment Info	
Visibility Reducing Particles	8-hour (10:00 to 18:00 PST)	See footnote 4	A	

A – attainment
N – non-attainment
U – unclassified ppm – parts per million
µg/m^3 – micrograms per cubic meter
PST – pacific standard time

Notes:

1. California standards for ozone, carbon monoxide, sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM_{10}, and visibility-reducing particles are values that are not to be exceeded. The standards for sulfates, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average (i.e., all standards except for lead and the PM_{10} annual standard), then some measurements may be excluded. In particular, measurements that are excluded include those that the CARB determines would occur less than once per year on average.
2. National standards shown are the "primary standards" designed to protect public health. National air quality standards are set by USEPA at levels determined to be protective of public health with an adequate margin of safety. National standards other than for ozone, particulates, and those based on annual averages are not to be exceeded more than once per year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.075 ppm (75 parts per billion) or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m^3. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m^3. Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met by spatially averaging annual averages across officially designated clusters of sites and then determining if the 3-year average of these annual averages falls below the standard.
3. The national 1-hour ozone standard was revoked by USEPA on June 15, 2005. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 ppm to 0.070 ppm. An area meets the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. This table provides the attainment statuses for the 2015 standard of 0.070 ppm. Eastern San Luis Obispo County is in federal non-attainment for ozone while the Western part of the County is in attainment.
4. Statewide Visibility-Reducing Particle Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per km when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment resulting from regional haze and is equivalent to a 10-mile nominal visual range.

5. To attain this standard, the 3-year average of the ninety-eighth percentile of the daily maximum 1-hour average at each monitoring station within an area must not exceed 0.100 ppm (effective January 22, 2010).
6. CARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure below which there are no adverse health effects determined.

Sources: CARB 2019a, USEPA 2019, SLOCAPCD 2019

National Emission Standards for Hazardous Air Pollutants

The National Emission Standards for Hazardous Air Pollutants, contained in two parts (Part 61 and 63) of Title 40 of the Code of Federal Regulations (CFR), regulate major sources of hazardous air pollutants (HAPs). HAPs include asbestos, beryllium, mercury, vinyl chloride, benzene, arsenic, radon/radionuclides, and various types of pesticides, herbicides, and other chemicals. A "major source" is defined as a source having the potential to emit 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs.

On-Road Vehicle Regulations

In 2016, the USEPA and the National Highway Traffic Safety Administration (NHTSA) adopted Phase 2 fuel efficiency standards for medium- and heavy-duty trucks for model years 2018 and beyond (USEPA 2016). This phase was intended to include technology-advancing standards that would substantially reduce greenhouse gas (GHG) emissions and fuel consumption, resulting in an ambitious, yet achievable, program that will allow manufacturers to meet the applicable standards over time, at reasonable cost, through a mix of different technologies. For semi-trucks, large pickup trucks, vans, and other trucks, Phase 2 standards will be phased in beginning with model year 2021 and culminating with model year 2027. While this regulation focuses on the reduction of GHG emissions, it is anticipated that this regulation would also help reduce criteria air pollutants.

On September 27, 2019, the USEPA and NHTSA published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One. The SAFE rule (Part One) went into effect in November 2019, and revoked California's authority to set its own GHG standards and set Zero Emission Vehicle (ZEV) mandates in California. The SAFE rule freezes new ZEV sales at model year 2020 levels for year 2021 and beyond and will likely result in a lower number of future ZEVs and a correspondingly greater number of future gasoline internal combustion engine vehicles.

Non-road Emission Regulations

USEPA has adopted emission standards for different types of non-road engines, equipment, and vehicles. The Tier 4 (currently in effect) standards require that emissions of PM and nitrogen oxides (NO_X) from non-road diesel engines are reduced compared to previous engines. Such emission reductions can be achieved through the use of control technologies, including advanced exhaust gas after-treatment.

Aircraft Emission Regulations

Aircraft Emissions are regulated by the USEPA under the CAA Title II Part B Aircraft Emission Standards and CFR Title 42 Chapter 85, Subchapter II Part B Aircraft Emission Standards. The USEPA has implemented the sampling, measurement and analytical determination of compliance from the International Civil Aviation Organization (ICAO) International Standards and Recommendation Practices, Annex 16 to the Convention on International Civil Aviation,

Environmental Protection, Volume II, Aircraft Emissions The requirements are developed by the Federal Aviation Administration (FAA) in association with the USEPA are issued in Title 14 CFR Part 32 , Fuel Venting and Exhaust Emission Requirements for Turbine Engine Powered Airplanes.

State Laws, Regulations, and Policies

California Ambient Air Quality Standards and the California Clean Air Act

The State of California initiated its own air quality standards, the CAAQS, in 1969 under the mandate of the Mulford-Carrell Act. The CAAQS are goals for air quality within the state, which generally are more stringent than the NAAQS. In addition to the six criteria pollutants covered by the NAAQS, CAAQS also regulate sulfates, H2S, vinyl chloride, and visibility-reducing particles. These standards are listed in Table 3.2 1.

The California Clean Air Act (CCAA), enacted in 1988, provides a comprehensive framework for air quality planning. The CCAA requires NAAs to achieve and maintain the health-based CAAQS by the earliest practicable date. The CCAA requires NAAs in the state to prepare attainment plans, which are required to achieve a minimum 5 percent annual reduction in the emissions of nonattainment pollutants unless all feasible measures have been implemented. All air basins in California are either unclassified or in attainment of the NAAQS and CAAQS for CO, SO_2, and NO_2. Some air basins are classified as NAAs for the NAAQS and CAAQS for O_3, PM_{10}, and $PM_{2.5}$.

The California Air Resources Board (CARB) is responsible for ensuring implementation of the CCAA, meeting state requirements for the federal CAA, and establishing the CAAQS. CARB oversees activities of local air districts and is responsible for incorporating air quality management plans for local air basins into a SIP for USEPA approval. It also is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB also establishes passenger vehicle fuel specifications (see discussion of CARB rules below).

California Air Resources Board Rules, Regulations, and Programs

As noted above, CARB has established a number of rules and regulations for the purpose of meeting the standards in the federal and state CAAs. The relevant CARB rules, regulations, and programs are discussed briefly below.

Commercial Vehicle Idling Regulation

CARB adopted an Airborne Toxic Control Measure (ATCM) to limit idling of diesel-fueled commercial motor vehicles. This regulation requires heavy-duty diesel engines of model years 2008 and newer to be equipped with a non-programmable system that automatically shuts down the engine after 5 minutes of idling or, optionally, meets a stringent NO_x idling emission standard (CARB 2019b).

Diesel Fuel Program

CARB established regulations which require that diesel fuel with sulfur content of 15 parts per million (ppm) or less (by weight) be used for all diesel-fueled vehicles that are operated in California. The standard also applies to non-vehicular diesel fuel, other than diesel fuel used

solely in locomotives or marine vessels. The regulations also contain standards for the aromatic hydrocarbon content and lubricity of diesel fuels.

In-use Off-road Diesel Vehicle Regulation

CARB adopted a regulation to reduce diesel PM and NO_X emissions from in-use, off-road, heavy-duty diesel vehicles in California. The regulation imposes limits on vehicle idling and requires fleets to reduce emissions by retiring, replacing, repowering, or installing exhaust retrofits to older engines. Personal-use vehicles and vehicles used solely for agriculture are exempt from this regulation (CARB 2016).

Portable Engine Airborne Toxic Control Measure

The Portable Engine ATCM is designed to reduce the PM emissions from portable diesel-fueled engines rated at 50 brake horsepower or larger. Based on their cumulative horsepower, fleets must follow a phase-out schedule or meet fleet-average emission rates.

Portable Equipment Registration Program

The statewide Portable Equipment Registration Program (PERP) establishes a system to uniformly regulate portable engines and portable engine–driven equipment units. After being registered in this program, engines and equipment units may operate throughout the state without the need to obtain separate permits from individual air districts. Owners or operators of portable engines and certain types of equipment can voluntarily register their units to operate their equipment anywhere in the state, although the owners and operators may still be subject to certain district requirements for reporting and notification. Engines with less than 50 brake horsepower are exempt from this program.

California Toxic Air Contaminant Act

The California Toxic Air Contaminant Act created the statutory framework for the evaluation and control of chemicals as toxic air contaminants (TACs). A TAC is "an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health (California Health and Safety Code Section 39655)." California Department of Pesticide Regulation (CDPR) is responsible for evaluating chemicals, including pesticides, to determine whether the chemical should be listed as a TAC. Once a chemical is listed as a TAC, CDPR investigates the need for, and appropriate degree of, control for the TAC, including potential measures to reduce emissions to levels that adequately protect public health.

4.3.3 Environmental Setting

Criteria Air Pollutants

Ozone

O_3 is formed by photochemical reactions between NO_X and reactive organic gases (ROGs) in the presence of sunlight rather than being directly emitted. O_3 is a pungent, colorless gas that is a component of smog. Elevated O_3 concentrations can result in reduced lung function, particularly during vigorous physical activity. This health problem can be particularly acute in sensitive

receptors such as the sick, seniors, and children. O_3 levels peak during the summer and early fall months.

Carbon Monoxide

CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, fatigue, and impairment to central nervous system functions. CO passes through the lungs into the bloodstream, where it interferes with the transfer of oxygen to body tissues.

Nitrogen Oxides

NO_X contribute to other pollution problems, including a high concentration of fine PM, poor visibility, and acid deposition. NO_2, a reddish-brown gas, and nitric oxide, a colorless, odorless gas, are formed from fuel combustion under high temperature or pressure. These compounds are referred to collectively as NO_X. NO_X is a primary component of the photochemical smog reaction. NO_2 can decrease lung function and may reduce resistance to infection.

Sulfur Dioxide

SO_2 is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels in California. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine PM, and reduces visibility and the level of sunlight.

Reactive Organic Gases

ROGs are formed from combustion of fuels and evaporation of organic solvents. ROGs are the fraction of volatile organic compounds (VOCs) that are a prime component of the photochemical smog reaction. Individual ROGs can be TACs.

Particulate Matter

PM is the term used for a mixture of solid particles and liquid droplets suspended in the air. PM ranges from particles that can be seen with the naked eye, such as dust or soot, to particles that can only be seen with an electron microscope. Respirable PM of 10 microns in diameter or less is called PM_{10}. Fine particulate matter is a subgroup known as $PM_{2.5}$ and is defined as particles with a diameter of 2.5 microns or less.

PM can be emitted directly from primary sources or formed secondarily from reactions in the atmosphere. Primary sources include windblown dust, grinding operations, smokestacks, and fires. Secondary formation of PM occurs from reactions of gaseous precursors within the atmosphere, such as the formation of nitrates from NO_X emissions from combustion activities.

PM can accumulate in the respiratory system and aggravate health problems. These health effects include cardiovascular symptoms; cardiac arrhythmias; heart attacks; respiratory symptoms; asthma attacks; bronchitis; alterations in lung tissue, lung structure, and respiratory tract defense mechanisms; and premature death in people with heart or lung disease. Those at particular risk of increased health decline from exposure to PM include people with preexisting heart or lung disease, children, and seniors.

Lead

Lead is a metal that can be found naturally in the environment and also is released from metal production processes and manufactured products. In the past, motor vehicles were the major contributor of lead emissions to the air. However, because of increased regulations, air emissions of lead from vehicles have declined. The major sources of lead emissions to the air today are ore and metal processing and piston-engine aircraft operating on leaded aviation gasoline. Lead can accumulate in the bones and adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood.

Toxic Air Contaminants

TACs are compounds that are known or suspected to cause adverse long-term (cancer and chronic) and/or short-term (acute) health effects. The Health and Safety Code defines a TAC as an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another's. There are almost 200 compounds designated in California regulations as TACs (Title 17, California Code of Regulations [CCR], Sections 93000-93001). The list of TACs also includes the substances defined in federal statute as hazardous air pollutants pursuant to Section 112(b) of the federal CAA (Title 42, U.S. Code, Section 7412[b]). Some of the TACs are groups of compounds which contain many individual substances (e.g., copper compounds, polycyclic aromatic compounds). TACs are emitted from mobile sources, including diesel engines; industrial processes and stationary sources, such as dry cleaners, gasoline stations, paint and solvent operations, and stationary fossil fuel-burning combustion.

Ambient TAC concentrations tend to be highest in urbanized and industrial areas near major TAC emission sources or near major mobile TAC emission sources, such as heavily traveled highways or major airports/seaports. Unlike for criteria pollutants, regular monitoring and reporting of all ambient TACs concentrations, such as diesel particulate matter (DPM) concentrations, is not performed in San Luis Obispo County. Generally, TACs do not have ambient air quality standards. The three TACs that do have State ambient air quality standards (lead, vinyl chloride, and hydrogen sulfide) are in attainment in San Luis Obispo County or have no attainment information available, and are not relevant to the air pollutant emission sources for this project.

Valley Fever

Coccidioidomycosis, often referred to as San Joaquin Valley Fever or Valley Fever, is one of the most studied and oldest known fungal infections. Valley Fever varies with the season and most commonly affects people who live in hot dry areas with alkaline soil. This disease affects both humans and animals, and is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis* (CI). CI spores are found in the top few inches of soil and the existence of the fungus in most soil areas is temporary. The cocci fungus lives as a saprophyte (an organism, especially a fungus or bacterium, which grows on and derives its nourishment from dead or decaying organic matter) in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus "blooms" and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-disturbing activities and

become airborne. Agricultural workers, construction workers, and other people who are outdoors and are exposed to wind, dust, and disturbed topsoil are at an elevated risk of contracting Valley Fever (CDPH 2013).

Most people exposed to the CI spores will not develop the disease. Of 100 persons who are infected with Valley Fever, approximately 40 will exhibit some symptoms and two to four will have the more serious disseminated forms of the disease. After recovery, nearly all, including the asymptomatic, develop a life-long immunity to the disease (Guevara 2014). African-Americans, Asians, women in the 3rd trimester of pregnancy, and persons whose immunity is compromised are most likely to develop the most severe form of the disease (U.S Centers for Disease Control [CDC] 2013). In addition to humans, a total of 70 different animal species are known to be susceptible to Valley Fever infections, including dogs, cats, and horses; with dogs being the most susceptible (Los Angeles County Public Health [LACPH] 2007).

The Project is located in an area designated as "suspected endemic" for Valley Fever. More cases occur in the north and east parts of the county, where conditions are often dustier and windier. Annual case reports for 2011 through 2018 from the CDPH indicate that San Luis Obispo County has reported incident rates for Valley Fever that range from a rate of 9.8 to 155.8 cases per year per 100,000 population (CDPH 2018). These incidence rates for San Luis Obispo County are among one of the highest rates in the state during the time period. Given the fact that fugitive dust-causing activities associated with the Project would occur, the potential for the Project construction activities to encounter and disperse CI spores and create the potential for additional Valley Fever infections is high. Mitigation measures that reduce fugitive dust will also reduce the chances of dispersing CI spores.

Regional Setting

The South Central Coast comprises all of San Luis Obispo, Santa Barbara, and Ventura counties. Overall, the region covers 7,887 square miles and is home to approximately 4% of California's population. The region is bounded by the Pacific Ocean on the west and south, and it includes six of the eight Channel Islands. All three counties comprise a relatively narrow coastal strip that gives way to inland mountains, with the highest elevations ranging from 6,000 to over 8,000 feet. San Luis Obispo County, the northernmost county, covers 3,304 square miles. The County is more rural and agricultural than many of California's other coastal regions, with a number of small communities scattered along the beaches, coastal hills, and mountains.

Meteorology and Climate

In terms of climate, the South Central Coast generally has relatively wet winters and warm dry summers. Coastal areas benefit from the marine influence, where onshore breezes keep beach communities cooler in summer and warmer in winter than communities located further inland. Year-round temperatures near the coast are mild, with average minimums in the 40s and 50s and average maximums in the 60s and low 70s. Average precipitation in this part of the region is between about 15 and 25 inches per year. In contrast, the inland areas are warmer and drier. In these areas, average minimum temperatures are still in the 40s and 50s. However, average maximums can be in the high 70s, and daily summer maximums can exceed 100 degrees Fahrenheit. Rainfall totals in the inland portions of the South Central Coast are generally less than 15 inches per year (CARB 2011).

The Proposed Project would involve work in Paso Robles and in surrounding rural areas of San Luis Obispo County. The locations of project alternatives vary; however, all are located within San Luis Obispo County. As shown in Table 4.3-1, the Proposed Project and all project alternatives are located in an area that is in nonattainment of state standards for ozone and PM_{10}.

Sensitive Receptors

Sensitive receptors are those segments of the population that are most susceptible to the effects of poor air quality, such as children, the elderly, and individuals with preexisting health problems (e.g., asthma) (CARB 2005). Examples of locations that may contain sensitive receptors include residences, senior living complexes, schools, parks, daycare centers, nursing homes, and medical facilities. Sensitive receptors in the project vicinity include residences near the substation site and along the reconductoring and new 70 kV powerline segments. Land uses within and around the proposed Estrella Substation site are mostly agricultural (i.e., vineyards). Land uses within and along the proposed 70 kV power line route include agricultural and residential, as well as industrial (Golden Hill Industrial Park) and public open space and recreation (e.g., Barney Schwartz Park, Cava Robles RV Resort).

In general, the reasonably foreseeable distribution components and many of the alternatives pass through similar or more rural areas. The southern reasonably foreseeable new distribution line segment would follow an existing road through agricultural fields north of the Estrella Substation site, while the northern reasonably foreseeable new distribution line segment would follow the SR 46 right-of-way. The additional 21/12 kV pad-mounted transformers would be installed along existing roads in relatively rural areas of San Luis Obispo County. Both of the alternative substation sites (Alternative SS-1 and SE-1A) are located in rural parts of the County on parcels currently being used for agricultural purposes. Alternatives PLR-1A and PLR-1C would both route the 70 kV power line through rural and agricultural areas east and north of Paso Robles. Alternative SE-PLR-2 would connect the substation under Alternative SE-1A to Paso Robles Substation and would pass through agricultural, rural residential, and urban areas. Several of the example FTM battery storage sites under Alternative BS-2 would be located in residential and commercial areas of Paso Robles (i.e., example FTM Sites 1-4), while the remaining sites would be located in more rural areas adjacent to the CAL FIRE Air Attack Base (FTM Site 5) and area substations (FTM Sites 6-8) (note: example FTM Site 7 is located within the City of Atascadero and is close to an existing church).

Existing Air Quality

Existing air quality in the central coast region is impaired for certain constituents, as much of the central coast region is currently in nonattainment for state ozone and PM_{10} standards. Smaller portions of the region are also in nonattainment for federal ozone and PM standards. Table 4.3-1 shows attainment status for criteria pollutants for counties within the central coast region. Table 4.3-2 shows ambient air quality monitoring data for air basins in the region.

Table 4.3-2. Ambient Air Quality Monitoring Data

Monitoring Station	Pollutant	Standard	2018		2017		2016	
			No. Exceed	Maximum Concentration	No. Exceed	Maximum Concentration	No. Exceed	Maximum Concentration
San Luis Obispo County – Paso Robles-Santa Fe Avenue	$PM_{2.5}$	24-hour	-	-	-	-	-	-
	PM_{10}	24-hour	27	85.5 µg/m^3	-	57.0 µg/m^3	0	44.8 µg/m^3
	O_3	8-hour	2	0.072 ppm	2	0.075 ppm	0	0.067 ppm
		1-hour	0	0.087 ppm	0	0.083 ppm	0	0.091 ppm
San Luis Obispo County – Atascadero-Lift Station #5	$PM_{2.5}$	24-hour	0	34.1 µg/m^3	0	26.7 µg/m^3	0	28.6 µg/m^3
	PM_{10}	24-hour	5	55.4 µg/m^3	-	67.5 µg/m^3	-	56.3 µg/m^3
	O_3	8-hour	0	0.079 ppm	1	0.072 ppm	0	0.066 ppm
		1-hour	0	0.069 ppm	0	0.077 ppm	0	0.084 ppm
	NO_2	1-hour	-	0.038 ppm	-	0.039 ppm	-	0.034 ppm
		24-hour	-	0.018 ppm	-	0.019 ppm	-	0.013 ppm

Notes: NO_2 = nitrogen dioxide; O_3 = ozone; ppm = parts per million; µg/m^3 = micrograms per cubic meter; $PM_{2.5}$ = particulate matter of aerodynamic radius of 2.5 microns or less; PM_{10} = particulate matter of aerodynamic radius of 10 microns or less; - = insufficient or no data available to determine the value. $PM_{2.5}$ values are for NAAQS, PM_{10} and O_3 are for CAAQS.

Source: California Air Resources Board (CARB) 2020a, 2020b.

Existing sources of air pollution and odor in the central coast region include heavy duty trucks, passenger vehicles, farm equipment, off-road equipment, food processing plants, vineyards and wineries, industrial facilities, waste management facilities, airports, marine vessels, military facilities, power plants, and agricultural operations. Potential sources of odors in the project vicinity include agricultural operations and the Paso Robles Wastewater Treatment Plant.

4.3.4 Impact Analysis

Methodology

The assessment of environmental impacts and determination of necessary mitigation measures has been completed independently based on a critical analysis of the information provided by the Applicants in their PEA and subsequent supporting documentation, including but not limited to data responses and PEA appendices. In addition, the assessment of environmental impacts is first based on the information in Chapter 2, *Project Description*, of this EIR. If additional detailed information was required, those assumptions were generally based on the PEA appendices and other supporting documentation.

Construction emissions were estimated using the California Emission Estimator Model (CalEEMod) version 2016.3.2. CalEEMod is an emissions model that estimates criteria air pollutant emissions for land use development projects. It contains reasonable default

assumptions that can be replaced if site-specific information is available. CalEEMod incorporates both CARB's EMission FACtors (EMFAC) for vehicles and current off-road in-use engine emissions model for construction equipment. Potential overlap in construction phases was considered if it was relevant to making a specific significance determination. Since construction was modeled for work to start in 2021 and changes would be less than 1 percent, no adjustments were made for the recently adopted SAFE Vehicles Rule, which is a joint NHTSA and USEPA rule. Operational emissions from maintenance and inspection is anticipated to be minimal as the substations and power lines will be controlled remotely. Maintenance and inspections will happen less than once a month. Therefore, CalEEMod was not used to estimate any operational criteria air pollutant emissions. Detailed assumptions that informed the modeling and the modeling results are included in Appendix C.

Helicopter emissions were estimated following the FAA recommended methods consistent with their Aviation Environmental Design Tool (AEDT version 3c). AEDT uses a helicopter's engine specific fuel flow rate that corresponds to the ICAO "climbout" mode corresponding to 85 percent maximum power instead of time in the four landing take off (LTO) modes: take-off, climb out, approach and taxi. This is a change from previous FAA models used (e.g. EDMS) which previously used all four LTO modes. The default time for the whole LTO sequence modeled as 100 percent in climb out mode is 887 seconds or 14.8 minutes (FAA 2016). Since the specific helicopter model is not available at this time, a Sikorsky S92A helicopter was used as a surrogate to represent a typical helicopter type used in utility construction projects and emission factors are readily available for this engine model. The helicopter emissions are determined by multiplying the fuel consumption with the emissions factors which are in terms of pounds of pollutant emitted per pound of fuel consumed. The helicopter was assumed to operate for 132 days with up to 10-hour days and it was assumed to have up to 20 LTOs per day. Fugitive dust emissions associated with helicopters primarily occurs during the LTO cycle. It is assumed that 1.5 kilograms are emitted as fugitive dust for each LTO cycle (Gillies et al 2007). Detailed helicopter emission calculations are available in Appendix C.

Criteria for Determining Significance

According to Appendix G of the CEQA Guidelines and Air District guidance, a significant impact would occur with respect to air quality if the Proposed Project, reasonably foreseeable distribution components, or alternatives would:

A. Conflict with or obstruct implementation of the applicable air quality plan.

B. 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.

C. Expose sensitive receptors to substantial air pollutant concentrations.

D. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Air District Thresholds

The San Luis Obispo County Air Pollution Control District (SLOCAPCD) has established thresholds of significance for construction and operational emissions which serve as a surrogate for determining if a project would result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state AAQS (SLOCAPCD 2017). If a project is below the significance threshold, then it does not result in a cumulatively considerable increase. If the project is above the significance thresholds than it would result in a cumulatively considerable impact. Mitigation of construction activities is required when emissions thresholds are equaled or exceeded. Table 4.3-3 and Table 4.3-4 below contain the District's thresholds of significance for emissions from construction and operations, respectively.

Table 4.3-3. Thresholds of Significance for Construction Operations

Pollutant	Threshold		
	Daily	Quarterly Tier 1	Quarterly Tier 2
ROG + NOx (Combined)	137 lbs	2.5 tons	6.3 tons
Diesel Particulate Matter (DPM)	7 lbs	0.13 tons	0.32 tons
Fugitive Particulate Matter (PM_{10}), Dust[1]		2.5 tons	

Notes: DPM = diesel particulate matter; NO_X = nitrogen oxides; PM_{10} = particulate matter with aerodynamic radius of 10 micrometers or less; ROG = reactive organic gases.

[1] Any project with a grading area greater than 4.0 acres of worked area can exceed the 2.5-ton PM_{10} quarterly threshold.

Depending on if construction emissions are exceeding the daily, quarterly Tier 1 or Tier 2, different levels of mitigation measures are required. Implementation of mitigation measures required for the daily or quarterly Tier 1 would reduce impacts to less than significant. The specific thresholds and their corresponding mitigation measures are detailed below.

ROG and NO_X Emissions

- Daily: For construction projects exceeding the 137 lbs/day threshold requires Standard Mitigation Measures;
- Quarterly – Tier 1: For construction projects exceedance of the 2.5 ton/quarter threshold requires Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment.
- Quarterly – Tier 2: For construction projects exceeding the 6.3 ton/qtr threshold, Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP) and off-site mitigation are required.

DPM Emissions

- Daily: For construction projects expected to be completed in less than one quarter, if emissions would exceed seven pounds per day, Standard Mitigation Measures are required.
- Quarterly – Tier 1: For construction projects lasting more than one quarter, if emissions would exceed 0.13 tons per quarter, Standard Mitigation Measures and BACT for construction equipment are required.
- Quarterly – Tier 2: For construction projects lasting more than one quarter, if emissions would exceed 0.32 ton per quarter, Standard Mitigation Measures, BACT, implementation of a CAMP, and off-site mitigation are required.

Fugitive Particulate Matter Dust Emissions

- Quarterly: Construction projects with emissions that would exceed 2.5 tons per quarter require Standard Fugitive PM_{10} Mitigation Measures and may require the implementation of a CAMP.

Table 4.3-4. Thresholds of Significance for Operational Emissions Impacts

Pollutant	Threshold	
	Daily	Annual
Ozone Precursors (ROG + NO_x)	25 lbs/day	25 tons/year
Diesel Particulate Matter (DPM)	1.25 lbs/day	
Fugitive Particulate Matter (PM_{10}), Dust	25 lbs/day	25 tons/year
CO	550 lbs/day	

Notes: CO = carbon monoxide; DPM = diesel particulate matter; NO_X = nitrogen oxides; PM_{10} = particulate matter with aerodynamic radius of 10 micrometers or less; ROG = reactive organic gases.

Environmental Impacts

Proposed Project

Impact AQ-1: Potential to conflict with or obstruct implementation of the SLOCAPCD air quality plan – *Less than Significant*

The Proposed Project would be built and operated in compliance with all SLOCAPCD rules and regulations developed to help implement the applicable air quality plans, and would also comply with all applicable state and federal air quality regulations. The area is in non-attainment for ozone and PM_{10}. The SLOCAPCD plans for these pollutants do not call for any additional future emission reduction regulations that would affect the Project's emissions sources, which are primarily construction off-road equipment and on-road vehicle emissions sources as well as occasional off-road and on-road vehicles for maintenance and operation that are not regulated

by SLOCAPCD. The Proposed Project also would not conflict with any County or Paso Robles General Plan air quality goals or policies. Thus, impacts would be **less than significant**.

Impact AQ-2: Potential to violate ROG, NO_X, and PM_{10} significance thresholds and contribute substantially to an existing or projected air quality violation - *Significant and Unavoidable*

Construction

Construction of the Proposed Project would generate temporary emissions of air pollutants. Ozone precursors (NO_x and ROG) as well as PM_{10} and $PM_{2.5}$ would be emitted by the operation of construction equipment and the helicopters. The construction equipment will also emit DPM which is a subcomponent of particulate matter from diesel fueled equipment. Note that the helicopters that would be used for the Proposed Project do not emit DPM, as they use jet fuel. Fugitive dust (PM_{10} and $PM_{2.5}$) would be emitted by activities that disturb the soil, such as demolition, grading and excavation, road construction, and building construction. The helicopters would also generate fugitive dust during their landings and takeoffs or hovering near the ground. The Project's estimated maximum daily and quarterly emissions are shown in Table 4.3-5. Modeling of construction emissions assumed the Proposed Project's current schedule. Changes to any of the timing of the individual project phases may increase or decrease the emissions depending on how construction phases overlap. The construction emissions were estimated as described above using CalEEMod and other models for the helicopter emissions.

Table 4.3-5. Construction Emissions

	CO	ROG	NO_X	ROG + NO_X	SO_X	Fugitive Dust PM_{10}	PM_{10}	$PM_{2.5}$	DPM
Maximum Daily Emissions (lbs/day)									
CalEEMod Sources	78.13	12.52	141.38	153.90	0.29	10.40	14.25	8.26	4.36
Helicopter	23.99	19.92	101.64	121.56	9.37	66.14	68.94	68.94	-
Total Maximum Daily	102.12	32.44	243.02	275.46	9.65	76.54	83.19	77.20	4.36
Significance Thresholds	-	-	-	137	-	-	-	-	7
Significant?	-	-	-	Yes	-	-	-	-	No
Maximum Quarterly Emissions (tons/quarter)									
CalEEMod Sources	-	-	-	3.78	-	0.06	-	-	0.12
Helicopter	-	0.9	4.57	5.47	-	2.98	-	-	-
Total Maximum Quarterly	-	-	-	9.25	-	3.04	-	-	0.12

	CO	ROG	NO_X	ROG + NO_X	SO_X	Fugitive Dust PM_{10}	PM_{10}	$PM_{2.5}$	DPM
Significance Thresholds	-	-	-	Tier 1 2.5 Tier 26.3	-	2.5	-	-	0.13
Significant?	-	-	-	Yes, Tier 2	-	Yes	-	-	No
Total Project Emissions (tons)									
CalEEMod Sources	6.75	1.05	10.20	11.25	0.02	0.30	0.67	0.43	0.37
Helicopter	1.58	1.31	6.71	8.02	0.62	4.37	4.55	4.55	-
Total Construction Project	8.33	2.36	16.91	19.27	0.64	4.67	5.22	4.98	0.37

Notes: CalEEMod = California Emission Estimator Model; CO = carbon monoxide; DPM = diesel particulate matter; NO_X = nitrogen oxides; $PM_{2.5}$ = particulate matter with aerodynamic radius of 2.5 micrometers or less; PM_{10} = particulate matter with aerodynamic radius of 10 micrometers or less; ROG = reactive organic gases; SO_X = sulfur oxides.

As discussed above, combined ROG and NO_X emissions resulting from construction emissions would exceed SLOCAPCD's daily thresholds and quarterly Tier 1 and Tier 2 thresholds and, thus, would result in a cumulatively considerable increase. The DPM emissions resulting from construction do not exceed the daily or quarterly thresholds. The fugitive dust emissions resulting from construction would exceed the quarterly threshold mainly related to the helicopter fugitive dust emissions which will primarily occur at the Paso Robles airport.

These significant criteria air pollutant emissions could lead to increased concentrations of pollutants in the atmosphere and could result in health effects due to the increased emissions. The ambient concentration of criteria pollutants is a result of complex atmospheric chemistry; models to determine the concentrations and related health effects of emissions of pollutant precursors and direct emissions which are not readily available at the project level. Such modeling would require detailed information not only about the project, but also about the other pollutants being emitted in the region; this information is not widely available and, where it is available, its use would be speculative.

NO_X and ROG are precursors to ozone, and NO_X, ROG, and SO_X are precursors to secondarily formed $PM_{2.5}$. Chemical and physical processes transform some of these precursors to the criteria pollutant concentrations in the atmosphere. Multiple variables determine whether emissions of air pollutants from the project move and disperse in the atmosphere in a manner in which concentrations of criteria pollutants would become elevated and result in health impacts. A specific mass of precursor emissions does not equate to an equivalent concentration of the resultant ozone or secondary particulate matter in that area. The resulting health effects of ambient air concentrations are further based on a complex relationship of multiple variables and factors. The calculated health effects are dependent upon the concentrations of pollutants

to which the receptors are exposed, the number and type of exposure pathways for a receptor, and the intake parameters for a receptor, which vary based upon age and sensitivity (e.g., presence of pre-existing conditions). Health effects would be more likely for individuals with greater susceptibility to exposure, and the location of receptors relative to the project impacts would affect whether receptors are exposed to project-related pollutants.

The following is a summary of the health effects from ozone, $PM_{2.5}$, and PM_{10}. Meteorology and terrain play major roles in ozone formation, and conditions for maximum ozone generation occur on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Central California can result in health effects. When inhaled, $PM_{2.5}$ and PM_{10} can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks and cause or aggravate bronchitis and other lung diseases. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Health effects of $PM_{2.5}$ include mortality (all causes), hospital admissions (respiratory, asthma, cardiovascular), emergency room visits (asthma), and acute myocardial infarction (non-fatal). For ozone, the endpoints are mortality, emergency room visits (respiratory), and hospital admissions (respiratory).

For this project, mass emissions from construction could exceed significance thresholds. Though the Project's emissions are significant for these criteria air pollutants, it is anticipated that the health effects from the Project would generally be low compared to background incidences of such health effects due to the relatively low level of emissions from this project compared to the total emissions in the South Central Coast Air Basin.

As discussed in Chapter 2, *Project Description*, there are several APMs that would be implemented to reduce potential impacts related to air quality, including APMs AIR-1, AIR-2, and AIR-3. Even with the implementation of APM measures, construction-related ROG and NO_X emissions threshold exceedances would be considered a significant impact. **Mitigation Measure AIR-1** is proposed to reduce potentially significant impacts, requiring implementation of SLOCAPCD standard mitigation measures, BACT, and preparation of a site-specific CAMP that must be reviewed and approved by the APCD prior to the start of construction. The CAMP would be a comprehensive document that captures all pollutant emission reduction measures to be implemented for the approved project. Approval by the APCD would ensure all feasible and appropriate mitigation measures have been incorporated.

Even with implementation of Mitigation Measure AIR-1, ROG and NO_X emissions would still be expected to exceed significance thresholds; therefore, this impact would result in a cumulatively considerable increase in criteria pollutants for which the region is in non-attainment, and the impact remains **significant and unavoidable**.

Mitigation Measure AQ-1: Prepare a Construction Activity Management Plan for Approval by SLOCAPCD.

HWT, PG&E, or their contractor(s) shall implement the following measures:

- Prepare a Construction Activity Management Plan that contains at a minimum the following SLOCAPCD standard mitigation measures, BACT measures and

diesel idling restrictions that are not already in the APMs. The CAMP shall be submitted to the air pollution control district (APCD) for review and approval prior to the start of construction and shall include, but not be limited to, the following elements:

1. A Dust Control Management Plan that encompasses all, but is not limited to, dust control measures that were listed above in the "dust control measures" section;

2. Tabulation of on and off-road construction equipment (age, horse-power and miles and/or hours of operation). Use of diesel construction equipment meeting CARB's Tier 3 and Tier 4 off-road and 2010 on-road compliant engines; Repowering equipment with the cleanest engines available; At a minimum, the off-road equipment fleet shall meet the CARB off-road emissions average for that calendar year and ensure that quarterly DPM emissions are less than SLOCAPCD significance thresholds.

3. Scheduling of construction truck trips during non-peak hours to reduce peak hour emissions;

4. Limits for the length of construction work-day periods and/or phased approaches for construction activities, if determined appropriate and necessary by the APCD.

Operation

The Proposed Project's operational emissions would be negligible and would be substantially lower than the SLOCAPCD's operational significance thresholds. Maintenance and inspection are anticipated to be minimal as the substations and power lines would be controlled remotely. Maintenance and inspection activities would take place less than once a month. The low amount of operational emissions and intermittent nature of these activities would not result in emissions that would exceed the criteria emission significance thresholds. Therefore, the impact of operations would be **less than significant.**

Impact AQ-3: Potential to expose sensitive receptors to substantial pollutant concentrations – *Less than Significant*

Due to the limited construction duration, the limited construction emissions, and the sparsely populated area surrounding the project site, there is very low potential for fugitive dust or DPM to impact sensitive receptors during construction. Because of the limited duration of construction in any one location, total Project construction-related DPM and other TAC emissions would not be of a magnitude and duration great enough to result in significant air toxic risks to exposed sensitive receptors. While this impact would be less than significant, implementation of APMs AIR-1, AIR-2, and AIR-3 and **Mitigation Measure AQ-1** would also provide a substantial reduction in the DPM emissions that occur on the project site during construction. The Proposed Project's operating emissions would be negligible and would not have the potential to impact sensitive receptors. Therefore, the Project's construction and operation air pollutant emissions would not expose sensitive receptors to substantial pollutant concentrations and would result in a **less-than-significant** impact.

Impact AQ-4: Potential to create objectionable odors affecting a substantial number of people – *Less than Significant.*

Some objectionable odors may be temporarily created during construction-related activities, such as from diesel exhaust and asphalt paving activities, and/or during operation and maintenance-related activities, such as from diesel exhaust. However, these odors would dissipate quickly, would only occur proximate to the work areas for a short time, and would not affect a substantial number of people in the sparsely populated project site area. Therefore, any impacts from objectionable odors would be **less than significant**.

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

Construction and operation activities for the reasonably foreseeable distribution components would be similar to the Proposed Project, but on a much smaller scale. Installation of reasonably foreseeable distribution poles would require much less effort and equipment use than that for the 70 kV poles and require construction of only 1.7 miles of new distribution line. Likewise, installation of the additional 21/12 kV transformers would require minimal site preparation and grading, while the work within the substation would require no new ground disturbance. Ultimate substation buildout (e.g., installation of additional transmission and distribution transformers and associated equipment within the substation footprint) would similarly be on a smaller scale than the Proposed Project. Buildout of the substation would not be of a level to emit substantial amounts of criteria air pollutants or conflict with the SLOCAPCD air quality plan. While the new distribution and transmission lines from Estrella Substation supported through ultimate buildout could involve construction activities that could exceed significance thresholds for criteria air pollutants, these impacts are speculative at this time. Thus, similar to the Proposed Project, the reasonably foreseeable distribution and ultimate substation buildout components would not conflict with or obstruct implementation of the applicable air quality plans. This impact under significance criterion A would be **less than significant**.

The reduced use of construction-related equipment (e.g., less equipment and lesser duration of use) and the smaller scale of activities associated with the reasonably foreseeable distribution and ultimate substation buildout components as compared to the Proposed Project, would result in a small fraction of the Proposed Project's criteria pollutant emissions. The Applicants would implement APM AIR-1, AIR-2, and AIR-3, which would further reduce or minimize emissions. Because criteria pollutant emissions would be below the SLOCAPCD's daily and quarterly criteria pollutant significance thresholds, impacts under significance criterion B would be **less than significant.**

Like the Proposed Project, the criteria pollutant and TAC emissions from the reasonably foreseeable distribution and/or ultimate substation buildout components would be largely one-time, construction-related emissions that would not substantially impact sensitive receptors during construction. The reasonably foreseeable distribution and ultimate substation buildout components would generate fugitive dust or DPM emissions that are not of a magnitude and duration to create significant air toxic risks to the nearest receptors. While this impact would be less than significant, implementation of APMs AIR-1, AIR-2, and AIR-3 would also provide a substantial reduction in the DPM emissions that occur on the project site during construction. Compliance with the SLOCAPCD rules and regulations and implementation of the applicable

APMs would reduce the fugitive dust emissions during construction of the reasonably foreseeable distribution components and associated impacts to sensitive receptors. Thus, impacts under significance criterion C would be **less than significant.**

Some objectionable odors may be temporarily created during construction-related activities for the reasonably foreseeable distribution and ultimate substation buildout components, such as from diesel exhaust. However, these odors would dissipate quickly, would only occur proximate to the work areas for a short time, and would not affect a substantial number of people in the sparsely populated project site area. Therefore, any impacts under significance criterion D would be **less than significant**.

Alternatives

No Project Alternative

Under the No Project Alternative, no impacts from criteria air pollutants and TACs would occur. No new substation or new/reconductored power line would be constructed; therefore, there would be no construction emissions or potential for increased emissions from maintenance and operations. **No impact** would occur under significance criteria A, B, C, or D.

Alternative SS-1: Bonel Ranch Substation Site

Similar to the Proposed Project, Alternative SS-1 would be built and operated in compliance with all SLOCAPCD rules and regulations developed to help implement the applicable air quality plans, and would also comply with all applicable State and federal air quality regulations. The SLOCAPCD plans for PM_{10} do not call for any additional future emission reduction regulations that would affect Alternative SS-1's emissions sources, which are primarily construction off-road equipment and on-road vehicle emissions sources that are not regulated by SLOCAPCD. Alternative SS-1 would not conflict with any applicable General Plan air quality goals or policies. Thus, impacts under significance criterion A would be **less than significant**.

Alternative SS-1 would have slightly higher potential for criteria air pollutants and TAC emissions compared to the proposed Estrella Substation. The substation located at the Bonel Ranch site would involve a longer length of the 230 kV interconnection and therefore require approximately one additional month of construction. Because geotechnical studies have not been completed for this site, it is possible that unsuitable soils could be encountered during construction of the substation or 230 kV connection that could require greater excavation, off-haul, and/or import of soils than the Proposed Project. Operations and maintenance of Alternative SS-1 would be similar to that of the proposed Estrella substation. The additional construction emissions for this alternative would cause a slight increase in the amount of ROG and NO_X emissions as well as fugitive dust as compared to the Proposed Project. As with the Proposed Project, even with the implementation of APMs, construction-related ROG and NO_X emissions threshold exceedances would be considered a significant impact. Implementation of **Mitigation Measure AQ-1** would decrease emissions, but not reduce emissions below the thresholds of significance. Since the Proposed Project is significant for construction emissions, the impacts to criteria pollutant emissions under criterion B from Alternative SS-1 are anticipated to be **significant and unavoidable**.

Alternative SS-1's additional construction emissions would cause a slight increase in the amount of DPM. It is not anticipated that this slight increase in emissions would cause emissions to exceed SLOCAPCD's significance threshold for DPM emissions. However, the limited construction duration, construction-related emissions and sparsely populated area surrounding the Alternative SS-1 site would result in low potential for DPM to impact sensitive receptors during construction. The slightly longer construction duration compared to the Proposed Project would not be of a magnitude or duration that could create significant air toxic risks to sensitive receptors. While this impact would be less than significant, implementation of APMs and Mitigation Measure AQ-1 would also provide a substantial reduction in the DPM emissions that occur on the project site during construction. Compliance with the SLOCAPCD rules and regulations and implementation of the APMs would reduce emissions during Alternative SS-1 construction and associated impacts to sensitive receptors. Alternative SS-1's operating emissions would be negligible and would not have the potential to impact sensitive receptors. Therefore, Alternative SS-1's impacts under significance criterion C would be **less than significant**.

Some objectionable odors may be temporarily created during construction-related activities for Alternative SS-1, such as from diesel exhaust. However, these odors would dissipate quickly, would only occur proximate to the work areas for a short time, and would not affect a substantial number of people in the sparsely populated Alternative SS-1 site area. Therefore, any impacts under significance criterion D would be **less than significant**.

Alternative PLR-1A: Estrella Route to Estrella Substation

Alternative PLR-1A would be built and operated in compliance with all SLOCAPCD rules and regulations developed to help implement the applicable air quality plans, and would also comply with all applicable State and federal air quality regulations. The SLOCAPCD plans for PM_{10} do not call for any additional future emission reduction regulations that would affect Alternative PLR-1A's emissions sources, which are primarily construction off-road equipment and on-road vehicle emissions sources that are not regulated by SLOCAPCD. Alternative PLR-1A would not conflict with any General Plan air quality goals or policies. Thus, impacts under significance criterion A would be **less than significant**.

Due to its longer duration of construction (10 months longer for the new 70 kV line and 6 months longer for the reconductoring segment), Alternative PLR-1A would have greater potential for construction-related impacts to criteria air pollutant and TAC emissions compared to the Proposed Project. Operation and maintenance of Alternative PLR-1A would involve a similar number and frequency of vehicle trips compared to the Proposed Project 70 kV power line. The additional construction emissions for this alternative would cause a slight increase in the amount of ROG and NO_x emissions as well as fugitive dust and would result in a significant impact under criterion B. Implementation of APMs and **Mitigation Measure AQ-1** would decrease emissions, but not reduce emissions below the thresholds of significance. Since the Proposed Project is significant for construction emissions, the impacts under significance criterion B from Alternative PLR-1A are anticipated to be **significant and unavoidable.**

The additional construction emissions for this alternative would cause an increase in the amount of DPM emissions. The DPM emissions could potentially exceed SLOCAPCD's significance thresholds for DPM. However, the limited construction duration in any particular location and sparsely populated area surrounding the Alternative PLR-1A would result in a low potential for

DPM to impact sensitive receptors during construction. Further, the longer construction duration compared to the Proposed Project would not be of a magnitude or duration that could create significant air toxic risks to sensitive receptors. Nevertheless, the potential for DPM emissions to exceed SLOCAPCD's significance thresholds would be considered a significant impact for criterion C. Implementation of APMs and **Mitigation Measure AQ-1** would provide a substantial reduction in the DPM emissions that occur on the project site during construction. Compliance with the SLOCAPCD rules and regulations and implementation of the APMs would reduce emissions during Alternative PLR-1A construction and associated impacts to sensitive receptors. Alternative PLR-1A's operating emissions would be negligible and would not have the potential to impact sensitive receptors. Therefore, Alternative PLR-1A's impacts under significance criterion C would be **less than significant with mitigation**.

Some objectionable odors may be temporarily created during construction-related activities for Alternative PLR-1A, such as from diesel exhaust. However, these odors would dissipate quickly, would only occur proximate to the work areas for a short time, and would not affect a substantial number of people in the sparsely populated Alternative PLR-1A site area. Therefore, any impacts under significance criterion D would be **less than significant**.

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C would be built and operated in compliance with all SLOCAPCD rules and regulations developed to help implement the applicable air quality plans, and would also comply with all applicable State and federal air quality regulations. The SLOCAPCD plans for PM_{10} do not call for any additional future emission reduction regulations that would affect Alternative PLR-1C's emissions sources, which are primarily construction off-road equipment and on-road vehicle emissions sources that are not regulated by SLOCAPCD. Alternative PLR-1C would not conflict with any General Plan air quality goals or policies. Thus, impacts under significance criterion A would be **less than significant**.

Alternative PLR-1C would be similar in length to Alternative PLR-1A and would require a similarly extended construction duration compared to the Proposed Project. As such, the alternative would have the same potential for increased construction-related criteria air pollutant and TAC emission impacts as Alternative PLR-1A (see above). Operation and maintenance of Alternative PLR-1C would involve a similar number and frequency of vehicle trips compared to the Proposed Project 70 kV power line. The additional construction emissions for this alternative would cause a slight increase in the amount of ROG and NO_x emissions as well as fugitive dust and would result in a significant impact under criterion B. Implementation of APMs and **Mitigation Measure AQ-1** would decrease emission, but not reduce emissions below the thresholds of significance. Since the Proposed Project is significant for construction emissions, the impacts under significance criterion B from Alternative PLR-1C are anticipated to be **significant and unavoidable.**

The additional construction emissions for this alternative would cause a slight increase in the amount of DPM emissions. The DPM emissions could potentially exceed SLOCAPCD's significance thresholds for DPM. However, the limited construction duration in any one location and sparsely populated area surrounding the Alternative PLR-1C alignment would result in low potential for DPM to impact sensitive receptors during construction. Further, the longer construction duration compared to the Proposed Project would not be of a magnitude or duration that could create significant air toxic risks to sensitive receptors. Nevertheless, the

potential for DPM emissions to exceed SLOCAPCD's significance thresholds would be considered a significant impact for criterion C. Implementation of APMs and **Mitigation Measure AQ-1** would provide a substantial reduction in the DPM emissions that occur on the project site during construction. Compliance with the SLOCAPCD rules and regulations and implementation of the APMs would reduce emissions during Alternative PLR-1C construction and associated impacts to sensitive receptors. Alternative PLR-1C's operating emissions would be negligible and would not have the potential to impact sensitive receptors. Therefore, Alternative PLR-1C's impacts under significance criterion C would be **less than significant with mitigation**.

Some objectionable odors may be temporarily created during construction-related activities for Alternative PLR-1C, such as from diesel exhaust. However, these odors would dissipate quickly, would only occur proximate to the work areas for a short time, and would not affect a substantial number of people in the sparsely populated Alternative PLR-1C site area. Therefore, any impacts under significance criterion D would be **less than significant**.

Alternative PLR-3: Strategic Undergrounding, Options 1 & 2

Alternative PLR-3 would be built and operated in compliance with all SLOCAPCD rules and regulations developed to help implement the applicable air quality plans, and would also comply with all applicable State and federal air quality regulations. The SLOCAPCD plans for PM_{10} do not call for any additional future emission reduction regulations that would affect Alternative PLR-3's emissions sources, which are primarily construction off-road equipment and on-road vehicle emissions sources that are not regulated by SLOCAPCD. Alternative PLR-3 would not conflict with any General Plan air quality goals or policies. Thus, impacts under significance criterion A would be **less than significant**.

Alternative PLR-3 would require a slightly longer construction duration compared to the project for the 70kV powerline segment that would be buried underground. Construction of Alternative PLR-3 (both options) would require a total of 12 months compared to 10 months for the entire overhead new 70 kV power line segment. The type of construction equipment used for trenching the powerline underground is different from equipment used to construct overhead lines. Therefore, it is possible that construction emissions could either slightly increase or decrease depending on the combination of time and changes to equipment. Nevertheless, these slight changes are not expected to substantially alter the alternative's overall potential for construction-related impacts to criteria air pollutant and TAC emissions as compared to the Proposed Project 70 kV powerline. Operation and maintenance of Alternative PLR-3 would involve similar number and frequency of vehicle trips compared to the Proposed Project 70 kV powerline.

The construction emissions for this alternative would cause a slight increase or decrease in the amount of ROG and NO_x emissions as well as fugitive dust as compared to the Proposed Project. As discussed above under Impact AQ-2, the Proposed Project would result in a significant impact under significance criterion B because of construction-related ROG and NO_X emissions threshold exceedances. These exceedances are substantial and would be primarily driven by project phasing in addition to the change to the alignment portion proposed for undergrounding. As a result, even in the case that ROG and NO_X emissions slightly decrease under Alternative PLR-3, and most certainly under the scenario that emissions slightly increase, Alternative PLR-3 is still expected to exceed ROG and NO_X emissions thresholds. Therefore, Alternative PLR-3 would result in a significant impact under significance criterion B. Implementation of APMs and

Mitigation Measure AQ-1 would decrease emissions but would not reduce emissions below the thresholds of significance. Since the impact of the Proposed Project is significant for construction emissions, the impacts under significance criterion B from Alternative PLR-3 are anticipated to be **significant and unavoidable.**

The additional construction emissions for this alternative would cause a slight increase or decrease in the amount of DPM emissions. The DPM emissions could potentially exceed SLOCAPCD's significance thresholds for DPM. However, the limited construction duration in any particular location and relatively sparsely populated area surrounding the Alternative PLR-3 alignments (both options) would result in low potential for fugitive dust or DPM to impact sensitive receptors during construction. Further, the slightly longer construction duration compared to the Proposed Project would not be of a magnitude or duration that could create significant air toxic risks to sensitive receptors. Nevertheless, the potential for DPM emissions to exceed SLOCAPCD's significance thresholds would be considered a significant impact. Implementation of APMs and **Mitigation Measure AQ-1** would provide a substantial reduction in the DPM emissions that occur on the project site during construction. Compliance with the SLOCAPCD rules and regulations and implementation of the APMs would reduce the fugitive dust emissions during Alternative PLR-3 construction and associated impacts to sensitive receptors. Alternative PLR-3's operating emissions would be negligible and would not have the potential to impact sensitive receptors. Therefore, Alternative PLR-3's impacts under significance criterion C would be **less than significant with mitigation**.

Some objectionable odors may be temporarily created during construction-related activities for Alternative PLR-3, such as from diesel exhaust. However, these odors would dissipate quickly, would only occur proximate to the work areas for a short time, and would not affect a substantial number of people in the Alternative PLR-3 site area. Therefore, any impacts under significance criterion D would be **less than significant**.

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

Alternative SE-1A would be built and operated in compliance with all SLOCAPCD rules and regulations developed to help implement the applicable air quality plans, and would also comply with all applicable State and federal air quality regulations. The SLOCAPCD plans for PM_{10} do not call for any additional future emission reduction regulations that would affect Alternative SE-1A's emissions sources, which are primarily construction off-road equipment and on-road vehicle emissions sources that are not regulated by SLOCAPCD. Alternative SE-1A would not conflict with any General Plan air quality goals or policies. Thus, impacts under significance criterion A would be **less than significant**.

Construction of Alternative SE-1A would take slightly longer than the proposed Estrella Substation due to the longer length of the 230 kV interconnection, while the types of equipment to be used in each phase of construction would be the same. The number of construction vehicle trips and the frequency of the trips for Alternative SE-1A is estimated to be the same as for the Proposed Project (refer to Table 4.17-3 in Section 4.17, *Transportation and Traffic*); although, the number and frequency of haul trips associated with soil import/export cannot be determined since geotechnical studies have not been completed. The estimated number of vehicle trips and frequency of the trips necessary for operation and maintenance of the facilities under Alternative SE-1A would be the same as for the Proposed Project.

The construction emissions for this alternative would cause a slight increase or decrease in the amount of ROG and NO_x emissions as well as fugitive dust as compared to the Proposed Project. As discussed above, the Proposed Project would result in a significant impact under significance criterion B because of construction-related ROG and NO_X emissions threshold exceedances. Because these exceedances are substantial and would be primarily driven by project phasing in addition to the change to the substation location, even in the case that ROG and NO_X emissions slightly decrease under Alternative SE-1A, and most certainly under the scenario that emissions slightly increase, Alternative SE-1A is still expected to exceed ROG and NO_X emissions thresholds. Therefore, Alternative SE-1A would result in a significant impact under significance criterion B. Implementation of APMs and **Mitigation Measure AQ-1** would decrease emission, but not reduce emissions below the thresholds of significance. Since the Proposed Project is significant for construction emissions, the impacts under significance criterion B from Alternative SE-1A are anticipated to be **significant and unavoidable.**

The additional construction emissions for this alternative would cause a slight increase or decrease in the amount of DPM emissions as well as fugitive dust. The DPM emissions could potentially exceed SLOCAPCD's significance thresholds for DPM. However, the limited construction duration in any particular location and sparsely populated area surrounding the Alternative SE-1A site would result in low potential for fugitive dust or DPM to impact sensitive receptors during construction. Further, the slightly longer construction duration compared to the Proposed Project would not be of a magnitude or duration that could create significant air toxic risks to sensitive receptors. Nevertheless, should DPM emissions exceed SLOCAPCD's significance thresholds, impacts would be considered significant. Implementation of APMs and **Mitigation Measure AQ-1** would provide a substantial reduction in the DPM emissions that occur on the project site during construction. Compliance with the SLOCAPCD rules and regulations and implementation of the APMs would reduce the fugitive dust emissions during Alternative SE-1A construction and associated impacts to sensitive receptors. Alternative SE-1A's operating emissions would be negligible and would not have the potential to impact sensitive receptors. Therefore, Alternative SE-1A's impacts under significance criterion C would be **less than significant with mitigation**.

Some objectionable odors may be temporarily created during construction-related activities for Alternative SE-1A, such as from diesel exhaust. However, these odors would dissipate quickly, would only occur proximate to the work areas for a short time, and would not affect a substantial number of people in the sparsely populated Alternative SE-1A site area. Therefore, any impacts under significance criterion D would be **less than significant**.

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Alternative SE-PLR-2 would be built and operated in compliance with all SLOCAPCD rules and regulations developed to help implement the applicable air quality plans, and would also comply with all applicable State and federal air quality regulations. The SLOCAPCD plans for PM_{10} do not call for any additional future emission reduction regulations that would affect Alternative SE-PLR-2's emissions sources, which are primarily construction off-road equipment and on-road vehicle emissions sources that are not regulated by SLOCAPCD. Alternative SE-PLR-2 would not conflict with any General Plan air quality goals or policies. Thus, impacts under significance criterion A would be **less than significant**.

In total, construction of the new 70 kV power line segment for Alternative SE-PLR-2 would take 9 months less than the Proposed Project's 70 kV power line. The reconductoring segment would not be needed under Alternative SE-PLR-2 and emissions associated with this construction phase would be eliminated. The estimated number of vehicle trips and frequency of the trips necessary for operation and maintenance of Alternative SE-PLR-2 would generally be the same as for the Proposed Project.

The construction emissions for this alternative would cause a slight increase or decrease in the amount of ROG, NO_x emissions as well as fugitive dust as compared to the Proposed Project. As discussed above, the Proposed Project would result in a significant impact under significance criterion B because of construction-related ROG and NO_X emissions threshold exceedances. Because these exceedances are substantial and would be primarily driven by project phasing in addition to the change to the alignment, even in the case that ROG and NO_X emissions slightly decrease under Alternative SE-PLR-2, and most certainly under the scenario that emissions slightly increase, Alternative SE-PLR-2 is still expected to exceed ROG and NO_X emissions thresholds. Therefore, Alternative SE-PLR-2 would result in a significant impact under significance criterion B. Implementation of APMs and **Mitigation Measure AQ-1** would decrease emission, but not reduce emissions below the thresholds of significance. Since the Proposed Project is significant for construction emissions, the impacts to criteria pollutant emissions from Alternative SE-PLR-2 are anticipated to be **significant and unavoidable.**

The additional construction emissions for this alternative would cause a slight increase or decrease in the amount of DPM emissions as well as fugitive dust. The DPM emissions could potentially exceed SLOCAPCD's significance thresholds for DPM. However, the limited construction duration in any particular location would result in low potential for fugitive dust or DPM to impact sensitive receptors during construction. Further, the slightly longer construction duration compared to the Proposed Project would not be of a magnitude or duration that could create significant air toxic risks to sensitive receptors. Nevertheless, should DPM emissions exceed SLOCAPCD's significance thresholds, impacts would be considered significant under significance criterion C. Implementation of APMs and **Mitigation Measure AQ-1** would provide a substantial reduction in the DPM emissions that occur on the project site during construction. Compliance with the SLOCAPCD rules and regulations and implementation of the APMs would reduce the fugitive dust emissions during Alternative SE-PLR-2 construction and associated impacts to sensitive receptors. Alternative SE-PLR-2's operating emissions would be negligible and would not have the potential to impact sensitive receptors. Therefore, Alternative SE-PLR-2's impacts under significance criterion C would be **less than significant with mitigation**.

Some objectionable odors may be temporarily created during construction-related activities for Alternative SE-PLR-2, such as from diesel exhaust. However, these odors would dissipate quickly, would only occur proximate to the work areas for a short time, and would not affect a substantial number of people in the Alternative SE-PLR-2 site area. Therefore, any impacts under significance criterion D would be **less than significant**.

Alternative BS-2: Battery Storage to Address Distribution Need

It is assumed that Alternative BS-2 would be built and operated in compliance with all SLOCAPCD rules and regulations developed to help implement the applicable air quality plans, and would also comply with all applicable State and federal air quality regulations. The SLOCAPCD plans for PM_{10} do not call for any additional future emission reduction regulations

that would affect Alternative BS-2's emissions sources, which are primarily construction off-road equipment and on-road vehicle emissions sources that are not regulated by SLOCAPCD. Alternative BS-2 is not anticipated to conflict with any General Plan air quality goals or policies.

Alternative BS-2 has the potential to reduce criteria pollutant and TAC emissions as compared to the Proposed Project as it would involve substantially lower construction emissions. Any construction emissions associated with battery storage will involve minimal use of fossil fueled equipment during installations. Furthermore, the use of battery stored power during high demand periods will reduce the need for criteria pollutant emitting sources of electricity generation throughout the electricity grid, such as the use of peaker plants, which are fossil-fueled based. The impact of this alternative would depend on construction schedule overlap of the remaining construction phases, therefore it is unknown if this alternative would reduce the significant impact of construction emissions as compared to the Proposed Project.

The construction activities for this alternative would likely cause a slight decrease in the amount of DPM emissions as well as fugitive dust. Implementation of standard measures would also provide a reduction in the DPM emissions that occur on the project site during construction. Compliance with the SLOCAPCD rules and regulations would reduce the fugitive dust emissions during Alternative BS-2 construction and associated impacts to sensitive receptors. Alternative BS-2's operating emissions would likely be negligible and would not have the potential to impact sensitive receptors. '

Some objectionable odors may be temporarily created during construction-related activities for Alternative BS-2, such as from diesel exhaust. However, these odors would dissipate quickly, would only occur proximate to the work areas for a short time.

Overall, because example FTM BESS sites were selected for illustrative purposes only, BESS installations have not yet been designed and technologies have not been selected. Thus, the specifics of Alternative BS-2 are unknown, and project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third-Party, Behind-the-Meter Solar and Battery Storage

It is assumed that Alternative BS-3 would be built and operated in compliance with all SLOCAPCD rules and regulations developed to help implement the applicable air quality plans, and would also comply with all applicable State and federal air quality regulations. The SLOCAPCD plans for PM_{10} do not call for any additional future emission reduction regulations that would affect Alternative BS-3's emissions sources. Alternative BS-3 would not be anticipated to conflict with any General Plan air quality goals or policies.

Construction activities under Alternative BS-3 would include deliveries of individual BESS units to customers' properties, installation of the units on-site, and wiring work to connect the BESS to existing electrical systems. BESS units for larger commercial properties could be heavy and may require larger/specialized trucks for delivery, and may require use of a small crane for installation. Depending on the size of solar power and storage installations, it is unknown precisely how the construction emissions would compare to the Proposed Project; however, emissions would likely be substantially reduced due in part to the fact that helicopters would

not be required for construction of BTM facilities under Alternative BS-3 and ground disturbance would likely be less.

Once installed, BESS facilities under Alternative BS-3 would require minimal operation and maintenance. The use of BESS facilities may decrease the criteria pollutants emitted from electricity generation in the area by decreasing use of peaker plants and making more efficient use of renewable energy sources.

The impact of this alternative would depend on construction schedule overlap of the remaining construction phases. However, it is not possible to know the scope, scale, or timing of BTM procurements, and the third-party provider may select other types of DERs (e.g., energy efficiency or demand response). It is assumed that all local codes and requirements would be followed for the permitting, siting, and installation of third-party BTM installations that may result from procurement via the DIDF.[1]

The construction activities for this alternative would cause an unknown change in the amount of DPM emissions as well as fugitive dust compared to the Proposed Project. The potential for DPM emissions to exceed SLOCAPCD's significance thresholds is speculative at this time. . Compliance with the SLOAPCD rules and regulations and all local requirements would be required. Alternative BS-3's operating emissions would likely be negligible and would not have the potential to impact sensitive receptors.

Some objectionable odors may be temporarily created during construction-related activities for Alternative BS-3, such as from diesel exhaust. However, these odors would dissipate quickly, would only occur proximate to the work areas for a short time.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

[1] See Chapter 3, Alternatives Description, Section 3.3.8 for further details about the DIDF.

4.4 Biological Resources

4.4.1 Introduction

This section discusses the potential for the Proposed Project, reasonably foreseeable distribution components, and alternatives to affect different types of habitats (e.g., uplands, riparian and wetlands) and special-status plant and wildlife species that may use these habitats. Specifically, this section describes existing regulations and the existing environmental setting in the potentially affected areas; then, the potential impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives are evaluated in accordance with the CEQA Appendix G guidelines.

4.4.2 Regulatory Setting

Federal Laws, Regulations and Policies

Endangered Species Act

The Endangered Species Act (ESA) (16 U.S. Code [USC] Section 1531 et seq.; 50 CFR Parts 17 and 222) provides for conservation of species that are endangered or threatened throughout all or a substantial portion of their range, as well as protection of the habitats on which they depend. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. In general, USFWS manages terrestrial and freshwater species, whereas NMFS manages marine and anadromous species.

Section 9 of the ESA and its implementing regulations prohibit the "take" of any fish or wildlife species listed under the ESA as endangered or threatened, unless otherwise authorized by federal regulations. The ESA defines the term "take" to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 USC Section 1532). Section 7 of the ESA (16 USC Section 1531 et seq.) outlines the procedures for federal interagency cooperation to conserve federally listed species and designated critical habitats.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC, Chapter 7, Subchapter II) protects migratory birds. Most actions that result in take, or the permanent or temporary possession of, a migratory bird constitute violations of the MBTA. The MBTA also prohibits destruction of occupied nests. The USFWS is responsible for overseeing compliance with the MBTA.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC Section 668; 50 CFR Part 22) prohibits take of bald and golden eagles and their occupied and unoccupied nests. USFWS administers the Bald and Golden Eagle Protection Act. In addition to immediate impacts, "take" also covers impacts that result from human-induced alterations initiated around a previously used nest site. Even if eagles are not present during the time of the alterations, if eagle(s) subsequently return and the

alterations agitate or bother an eagle to a degree that it interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment, this would be considered take.

Clean Water Act

The Clean Water Act (CWA) is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. CWA Sections 401 and 404 are the key sections that pertain to biological resources and are described further below.

Section 401

Section 401 of the CWA allows for evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the United States (waters of the U.S.). In California, the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) issue water quality certifications. Section 401 of the CWA directly grants authority from the USEPA to the State, whose RWQCBs are charged with implementing Section 401 compliance consistent with its water quality control plan (also known as a Basin Plan) to maintain an efficient process, consistent with USEPA requirements . Applicants for a federal license or permit to conduct activities that might result in the discharge to waters of the U.S. (including wetlands) must also obtain a Section 401 water quality certification to ensure that any such discharge complies with the applicable CWA provisions. Compliance with Section 401 is required for all projects that have a federal component and may affect state water quality.

Section 404

CWA Section 404 regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the aforementioned waters (33 CFR Section 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies, such as swimming pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE) under the provisions of the CWA Section 404. Construction activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. A water quality certification under CWA Section 401 is required before the USACE can issue a Section 404 permit.

State Laws, Regulations and Policies

California Environmental Quality Act

Section 15065 of the CEQA Guidelines (14 CCR) requires that a lead agency determine whether a project has the potential to 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, and/or substantially reduce the number or restrict the range of an endangered, rare, or threatened species. Such impacts would be considered significant under CEQA.

CEQA Guidelines Section 15380 defines the terms "species," "endangered," "rare," and "threatened" as they pertain to CEQA. Section 15380 also provides a greater level of consideration for state-listed or federally listed species, and for any species that can be shown to meet the criteria for listing, but that has not yet been listed. In summary, the criteria for considering a species endangered, rare, or threatened under CEQA are as follows:

- when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors; or
- although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or
- the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as defined in the ESA.

Species that meet the criteria listed above are often considered "Species of Special Concern" by California Department of Fish and Wildlife (CDFW). Species of Special Concern is an administrative designation and carries no formal legal status. Generally, Species of Special Concern should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined in Section 15380 of the CEQA Guidelines; however, some older lists of Species of Special Concern were not developed using criteria relevant to CEQA, and the information used in generating those lists is out of date. However, for the purposes of this analysis, such "species of special concern" are included with formally listed (i.e., threatened, endangered, candidate threatened, candidate endangered) and other protected species (e.g., fully protected) under the term "special-status species."

California Fish and Game Code

Sections 700 and Others – Species Protection

The California Fish and Game Code (CFGC) established CDFW (Section 700) and states that the fish and wildlife resources of the state are held in trust for the people of the state by and through CDFW. CFGC Section 1802 states that CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. Provisions of the CFGC establish special protection to certain enumerated species, such as fully protected fish species.

Section 1602 – Lake or Streambed Alteration

Section 1602 of the CFGC states that "an entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake" unless CDFW receives written notification regarding the activity and the entity pays the applicable fee. If CDFW determines that the activity may substantially adversely affect an existing fish or wildlife resource, an agreement is issued to the entity that includes reasonable measures necessary to protect the resource.

Sections 1900 to 1913 – Native Plant Protection Act

Sections 1900 to 1913 of the CFGC codifies the Native Plant Protection Act (NPPA) of 1977, which directs CDFW to carry out the California State Legislature's intent to "preserve, protect and enhance rare and endangered plants in this state." NPPA authorizes CDFW to designate plants as endangered or rare and prohibits take of any such plants, except as authorized in limited circumstances.

CDFW and California Native Plant Society (CNPS), a non-governmental organization, jointly maintain California Rare Plant Rank (CRPR) lists. These lists include plant species of concern in California. Vascular plants included on these lists are defined as follows:

List 1A: Plants considered extinct or extirpated in California.

List 1B: Plants that are rare, threatened, or endangered in California and elsewhere.

List 2A: Plants which are presumed extirpated in California, but more common elsewhere.

List 2B: Plants that are rare, threatened, or endangered in California, but more common elsewhere.

List 3: Plants about which more information is needed—review list.

List 4: Plants of limited distribution—watch list.

Plants appearing on Lists 1 and 2 are, in general, considered to meet CEQA Guidelines Section 15380(b) criteria, and adverse effects to these species may be considered significant. Impacts to plants that are on Lists 3 and 4 are not significant under CEQA review.

Sections 2050 to 2098 – California Endangered Species Act

The California Endangered Species Act (CESA) (CFGC Sections 2050–2098) prohibits state agencies from approving a project that would jeopardize the continued existence of a species listed under the CESA as endangered or threatened, or would result in the destruction or adverse modification of habitat essential to the continued existence of those species. Similarly, CESA prohibits the take of any species that is state listed as endangered or threatened, or designated as a candidate for such listing. Under the CESA, CDFW may issue an incidental take permit authorizing the take of listed and candidate species that is incidental to an otherwise lawful activity, subject to specified conditions.

Sections 3503, 3503.5, 3513, and 3800 – Nesting Bird Protections

CFGC Sections 3503, 3513, and 3800 protect native and migratory birds, including their active or inactive nests and eggs, from all forms of take. Section 3503 states the following: "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 specifically protects raptors (i.e., eagles, falcons, hawks, and owls) (i.e., birds in the orders Falconiformes or Strigiformes) and their nests, while Section 3513 protects migratory birds. Section 3800 of the CFGC protects from take all birds occurring naturally in California that are not resident game

birds, migratory game birds, or fully protected birds or nongame birds, except when take is related to mining operations, and when a mitigation plan has been prepared and approved by CDFW.

Sections 3511, 4700, 5050, and 5515 – Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the CFGC identify species that are fully protected from all forms of take. Section 3511 lists fully protected birds; Section 4700 lists fully protected mammals; Section 5050 lists fully protected amphibians; and Section 5515 lists fully protected fish.

4.4.3 Environmental Setting

This section describes the environmental setting, including physical, climatic, recent temporal, and biotic characteristics of the Proposed Project, reasonably foreseeable distribution components, and alternatives areas related to biological resources based on background data review, field data collection, and professional judgment of qualified biological resource professionals.

Regional Topography and Climate

The Proposed Project, reasonably foreseeable distribution components, and alternatives would be located in the north-central portion of San Luis Obispo County, between the Temblor Range and the Santa Lucia Coastal Range. Elevations in this area range from approximately 650 feet to 1,000 feet (200 to 305 meters) above mean sea level. Topography ranges from flat to gently sloping rolling hills to steep slopes along roadside cuts.

San Luis Obispo County is characterized by a Mediterranean climate, with hot dry summers and cool wet winters. High temperatures in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives average 92 degrees Fahrenheit (°F) and low temperatures average 34°F (National Oceanic and Atmospheric Administration [NOAA] 2018). Average annual precipitation is approximately 15.2 inches, with the majority of precipitation occurring between October and April (NOAA 2018). Soils in this area range from shallow to very deep, moderate to well drained, and consist of loams with variable sand, gravel, silt, and clay content (See Section 4.7, “Geology, Soils, Seismicity, and Paleontological Resources,” for more information).

Land Cover Types and Vegetation Communities

The Proposed Project, reasonably foreseeable distribution components, and alternatives would occur in areas largely typified by agricultural development, as well as non-native grassland and urban/developed areas. Portions of the Proposed Project and alternatives would also pass through areas classified as blue oak woodland, central (Lucian) coastal scrub, (Central Coast cottonwood-willow) riparian forest, and ruderal. There are also areas of sandy wash, coastal and freshwater marsh, and seasonal wetland in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives. These land cover types are discussed further below. Mapping of land cover types is provided in the PEA (NEET West and PG&E 2017) and Biological Resources Technical Reports (BRTRs) for applicable alternatives (PG&E 2017, HWT 2019, and PG&E 2019).

Agricultural

Agricultural land cover is characterized by active cultivation of agricultural crops, oftentimes with irrigation. Agricultural crops in the area of the Proposed Project, reasonably foreseeable distribution components, and alternatives include primarily grape vineyards, with a smaller abundance of row crops, irrigated pastures, and forage crops (NEET West and PG&E 2017).

Nonnative Grassland

Nonnative grasslands consist of annual grasses generally less than 1 meter high and 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*) (NEET West and PG&E 2017). Nonnative grassland habitat is present throughout the Proposed Project, reasonably foreseeable distribution components, and alternatives areas, frequently interspersing blue oak woodlands, margins of agricultural fields, and rural development. Some nonnative grasslands areas are subject to frequent mowing or discing.

Ruderal

Ruderal habitat is typified by weedy species that are able to quickly colonize disturbed areas due to their high rates of seed dispersal and fast growth. As such, ruderal vegetation often occurs along road edges and other highly disturbed areas. Species present in ruderal areas include, but are not limited to, nonnative annual grasses, poison hemlock (*Conium maculatum*), radish (*Raphanus* sp.), mustard (*Brassica* spp.), and various thistles (NEET West and PG&E 2017).

Urban/Developed

Urban/developed land cover includes areas that have been developed, paved, and/or planted with landscaping, such as trees, shrubs, ornamental plants, and turfgrass. Vegetation density, canopy cover, and species composition vary widely in these areas (NEET West and PG&E 2017). Vegetation in urban/developed lands is frequently maintained through mowing, trimming, irrigation, weeding, or planting.

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*) and California Juniper (*Juniperus californica*). Blue oak woodlands range from open savannas scattered across the landscape to dense woodlands, and often contain an understory of grasses and forbs (NEET West and PG&E 2017). This habitat type usually contains shallow, moderately to excessively drained soils with rock fragments and occurs below 6,230 feet (Sawyer et al. 2009). Blue oak woodlands are scattered throughout the Proposed Project and alternatives areas, including along the Proposed Project's 70 kV power line north of Golden Hill Road.

Central (Lucian) Coastal Scrub

Central (Lucian) coastal scrub is typically dominated by California buckwheat (*Eriogonum fasciculatum*), coyote brush (*Baccharis pilularis*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and/or white sage (*Salvia apiana*) as the co-dominant shrubs in the

canopy (Sawyer et al. 2009). Of these species, coyote brush typically forms the canopy of this community due to its comparatively greater height than the other co-dominants. This community is located at several dry locations in the vicinity of the Proposed Project and alternatives, often on steep, south-facing slopes. Sandy, mudstone, and shale soils typically support this plant community, but it is also found on stabilized dunes and flat terraces of varying slope aspects (CDFG 2002).

Sandy Wash

Sandy wash occurs in much of Huer Huero Creek and other ephemeral drainages in sandy soils. Soils within sandy wash are well-drained and support subsurface or relatively short-lived surface drainage events. Due to the infrequency of these drainages and the high mobility of the substrate, plants are frequently absent from sandy washes. Sparse plant cover, where it occurs, is often located within flat areas where sandy wash channels broaden and along segments of greater channel depth. Plant species observed in sandy wash included coyote brush, California sagebrush, and sandbar willow (*S. exigua*).

(Central Coast Cottonwood-Willow) Riparian Forest

Central Coast cottonwood-willow riparian forest includes dominant species such as Fremont's cottonwood (*Populus fremontii*), sycamore (*Platanus racemose*), and willows (*Salix* spp.). Other species associated with this community include coast live oak, valley oak, coyote brush, and stinging nettle (*Urtica dioica*). Willow trees often occur in the mid-strata down to the understory, overshadowed by taller growing cottonwood and sycamore trees. This community is typically found along perennial to ephemeral drainages, including the Salinas River, Estrella River, and the lower portions of Huer Huero Creek.

Coastal and Valley Freshwater Marsh

Coastal and valley freshwater marsh is typically dominated by cattail (*Typha* sp.), California bulrush (*Schoenoplectus californicus*), and hardstem bulrush (*Schoenoplectus acutus*). Other cooccurring species typically include bur reed (*Sparganium* sp.), rush (*Juncus* spp.), rabbitsfoot grass (*Polypogon monspeliensis*), rough cocklebur (*Xanthium strumarium*), bird's foot trefoil (*Lotus corniculatus*), and saltgrass (*Distichlis spicata*). Coastal and valley freshwater marsh is associated with perennial to near-perennial surface water along stream channels, ponds, and similarly semi-permanent wetlands.

Seasonal Wetland

Seasonal wetlands are primarily located in the northern and eastern portions of the Proposed Project and alternatives vicinity within topographic depressions in flat terraces. Seasonal wetlands are freshwater wetlands that are seasonally inundated or their soil saturated during the wet season (i.e., winter and spring). These features are typically charged by direct rainfall and adjacent upland runoff, and seasonal wetlands dry completely during early spring to summer. Dominant plant species typically associated with seasonal wetlands include coyote thistle (*Eryngium vaseyi*), common spikerush (*Eleocharis macrostachya*), vernal pool popcornflower (*Plagiobothrys stipitatus*), smooth-rayed goldfields (*Lasthenia glaberrima*), cowbag clover (*Trifolium depauperatum*), blow wives (*Achyrachaena mollis*), and peppergrass (*Lepidium nitidum*).

Vernal pools are a subset of seasonal wetlands, but not all seasonal wetlands support vernal pool characteristics or branchiopods (e.g., fairy shrimp). Vernal pools exhibit a hydroperiod (i.e., inundation duration) longer than other seasonal wetlands, which do not remain inundated for a duration sufficient to support such branchiopods. Several shorebird, duck, and other water fowl species forage in seasonal wetlands, as these wetlands offer resting and feeding opportunities during migrations along the Pacific flyway. Sierran treefrogs (*Pseudacris sierra*) breed and forage in seasonal wetlands.

Drainages and Wetlands

Several major surface waterbodies (e.g., Salinas River, Huer Huero Creek, Dry Creek, and Estrella River), which are also discussed in detail in Section 4.10, "Hydrology and Water Quality," are the dominant drainages of the region. There are also a number of unnamed drainages, agricultural ponds, and some wetlands in the region, some of which are tributary to the major surface waterbodies. Figure 4.4-1 shows the location of drainages and wetlands in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives.

- ***Salinas River*.** The Salinas River is the largest river of the Central Coast region, 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 (NEET West and PG&E 2017). The Proposed Project, reasonably foreseeable distribution components, and alternatives would not cross Salinas River, but the reconductoring segment of the Proposed Project and Alternatives PLR-1A and PLR-C generally follow the river, east of River Road.

- ***Huer Huero Creek*.** Huer Huero Creek bisects the proposed 70 kV power line segment approximately 1.5 miles west of Estrella Substation. The headwaters of Huer Huero Creek are located in the Coast Ranges just south of Creston, California. This ephemeral creek generally flows northwest crossing over and briefly paralleling the Proposed Project's 70 kV power line before draining into Salinas River, 1 mile southwest of San Miguel Substation (NEET West and PG&E 2017). Alternatives PLR-1A and PLR-C cross Huer Huero Creek approximately 1,450 feet upstream of its confluence with the Salinas River. In the area of the Proposed Project, reasonably foreseeable distribution components, and alternatives, Huer Huero Creek contains sandy substrate with a sparse herb layer and intermittent cottonwood, willow, and other woody shrubs scattered throughout the drainage (NEET West and PG&E 2017).

- ***Estrella River.*** The Estrella River is an intermittent drainage originating from the confluence of San Juan and Cholame Creeks near Shandon, California. The Estrella River flows perennially underground, but typically exhibits surface water following rain events. The Estrella River is dominated by sandy substrate and supports woody riparian vegetation, including Fremont's cottonwood, willows, and sycamore trees, varying from sparse to relatively dense cover. Alternative PLR-1C (especially Minor Route Variation [MRV] 1) would be located close (to the south) to the river.

- ***Dry Creek.*** Dry Creek is an ephemeral drainage originating from the coastal mountain foothills approximately 4 miles northeast of Creston. From its headwaters, the creek

flows over 13 miles northwest through blue oak woodland to its confluence with Huer Huero Creek near Airport Road, approximately 0.6 mile north of SR 46. The Proposed Project, at its nearest point, is approximately 1,500 feet south of Dry Creek and does not cross the drainage (NEET West and PG&E 2017). However, the southern new reasonably foreseeable distribution line segment would be located approximately 160 feet west of Dry Creek. Alternative PLR-1A would cross Dry Creek northwest of the intersection of Union and Hidden Acre roads.

- ***Unnamed Drainages.*** Various unnamed drainages occur throughout the Proposed Project, reasonably foreseeable distribution components, and alternatives vicinity, as shown in Figure 4.4-1. A number of these features cross or occur in close proximity to the Proposed Project and various alternative routes. Often, these unnamed features do not contain a defined bed and bank or ordinary high water mark.

- ***Wetlands.*** As shown in Figure 4.4-1, areas of freshwater emergent wetland and freshwater forested/shrub wetland exist throughout the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives. Wetlands are primarily located along or adjacent to the named surface waterbodies and/or unnamed drainages. As described in the PEA, while field surveys identified several wetland features in the Proposed Project area, none of these were located within the Project footprint or within construction work areas (NEET West and PG&E 2017).

Special-Status Species

Special-status species include (1) species listed, or that are candidates for future listing, as threatened or endangered under the federal ESA or CESA; (2) plants listed as rare under NPPA; (3) plants considered by the CNPS to be “rare, threatened, or endangered in California” (CNPS Rare Plant Ranks 1 and 2); (4) species that meet the definitions of rare or endangered under CEQA; (5) animals fully protected in California under the CFGC, and (6) nesting raptors protected in California.

Identification of special-status species that are present, or may occur, in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives involved review of the USFWS Information for Planning and Conservation (IPaC) Report for the study area (USFWS 2019), California Natural Diversity Database (CNDDB) (CDFW 2019a), and CNPS’s Inventory of Rare and Endangered Plants of California (CNPS 2019). The identification of special-status species also relied on the information in the PEA (NEET West and PG&E 2017) and the BRTRs for several alternatives provided by the Applicants (PG&E 2017, 2019; HWT 2019), including various field surveys conducted in preparation of these documents. Horizon Water and Environment, LLC (Horizon) also conducted several field surveys (Horizon 2019a, 2019b, 2019c), which confirmed or revealed the presence of certain special-status species.

The list of species with potential to occur in the Proposed Project, reasonably foreseeable distribution components, and alternatives areas is provided in Table 4.4-1. Species that were reviewed but determined not to have potential to occur in the subject areas are included in Appendix D. The results of the CNDDB queries for plants and animals are shown in Figure 4.4-2 and Figure 4.4-3, respectively. Additionally, federally designated critical habitat for applicable species is shown in Figure 4.4-4. Known golden eagle nest locations are shown in Figure 4.4-5.

Table 4.4-1. Special-Status Plant and Animal Species with Potential to Occur in the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives Vicinity

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
PLANTS				
Hoover's bent grass *Agrostis hooveri*	--/--/1B.2	Perennial herb. Occurs on dry sandy soils in open chaparral and oak woodlands. Blooming period: April-July. Elevation: < 600 meters above mean sea level (amsl).	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Blue oak woodlands may provide habitat for this species. No CNDDB records exist within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Santa Margarita Manzanita *Arctostaphylos pilosula*	--/--/1B.2	Perennial evergreen shrub found on sandstone (sometimes) soils. Blooming period: December-May. Elevation: 75-1,100 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Blue oak woodlands and chaparral on sandstone soil may provide habitat for this species. Six CNDDB occurrences (from south of Atascadero) have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Miles' milk-vetch *Astragalus didymocarpus* v*ar. milesianus*	--/--/1B.2	Annual herb with arrowhead-shaped leaves associated with clay soils. Blooms March-June. Elevation: 20-90 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable coastal scrub habitat is limited in the area. One CNDDB record (east of Atascadero) is known within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
La Panza mariposa lily *Calochortus simulans*	--/--/1B.3	Perennial bulbiferous herb with a white to yellow bell-shaped flower with a dark red spot at the base. Meadow habitats. Sandy (often granitic) soils, sometimes serpentinite. Blooming period: April-July.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Grassland and blue oak woodlands may provide habitat for this species. One CNDDB occurrence (west of Atascadero) is recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
		Elevation: 325-1,150 meters amsl.		
dwarf calycadenia *Calycadenia villosa*	--/--/1B.1	Annual herb with a white to pink ray flower up to 18 inches tall. Associated with dry, rocky hills, ridges. Blooming period: May-October. Elevation: 240-1,350 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Nonnative grassland may provide habitat for this species. One CNDDB occurrence (near Atascadero) has been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Hardham's evening primrose *Camissoniopsis hardhamiae*	--/--/1B.2	Annual herb that is robust and rosette with a small yellow flower. Generally occurs in sandy soil, limestone, and disturbed oak woodland and also in burned areas. Blooming period: March-May. Elevation: 140-945 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Sandy soils and blue oak woodlands may provide suitable habitat. No CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
San Luis Obispo owl's clover *Castilleja densiflora* var. *obispoensis*	--/--/1B.2	Annual herb with cream to pale yellow flowers. Occurs in coastal grassland. Blooming period: March-June. Elevation: 10-430 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Nonnative grasslands and blue oak woodlands may provide suitable habitat for this species. The nearest CNDDB occurrence was recorded near the intersection of Jardine Road and the Estrella River in 2005.
Lemmon's jewelflower *Caulanthus lemmonii*	FE/SE/1B.1	Annual herb up to 32 inches tall with a creamy white flower with purple or brown tips. Blooming period: February-May. Elevation: 80-1,580 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Nonnative grassland may provide suitable habitat for this species. Five CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives, although all of these were recorded between 1935 and 1960, and are

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
				primarily from areas that are currently developed.
straight-awned spineflower *Chorizanthe rectispina*	--/--/1B.3	Annual herb that is generally decumbent with a small yellow tube flower and white lobes. Sandy or gravelly loams, unnamed drainage channels. Blooming period: April-July. Elevation: 85-1,035 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Sandy soils along Huer Huero Creek and other unnamed drainages may provide suitable habitat for this species. Two CNDDB occurrences (south of Atascadero and near the intersection of Jardine Road and Estrella River) have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Hall's tarplant *Deinandra halliana*	--/--/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: April-May. Elevation: 260-1,000 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Nonnative grasslands may provide habitat. No CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
yellow-flowered eriastrum *Eriastrum luteum*	--/--/1B.2	Annual herb that grows up to 10 inches tall with a bright yellow flower. Grows on drying slopes in sandy or gravel soils. Blooming period: May-June. Elevation: < 1,000 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Blue oak woodlands and sandy soils along Huer Huero Creek may provide suitable habitat for this species. One CNDDB occurrence (from an area near Atascadero) has been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Temblor buckwheat	--/--/1B.2	Annual herb with a white flower and basal leaves, stems up to 6 inches tall. Associated	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Nonnative grassland and blue oak woodlands may provide habitat for this species. No CNDDB occurrences have been recorded

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
Eriogonum temblorense		with sandy soils. Blooming period: April-September. Elevation: 300-1000 meters amsl.		within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Ojai fritillary *Fritillaria ojaiensis*	--/--/1B.2	Perennial bulbiferous herb found on rocky soils. Blooms February-May. Elevation: 225-998 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable rocky soil substrate in chaparral is present in the Proposed Project, reasonably foreseeable distribution components, and alternatives areas. There are 2 CNDDB occurrences (from an area near Atascadero) that have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Santa Lucia dwarf rush *Juncus luciensis*	--/--/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 amsl.	**Possible** (PP, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Seasonal wetland and drainage features may provide habitat. One CNDDB occurrence was recorded near the intersection of Jardine Road and Estrella River and another occurrence was recorded approximately 3 miles southwest of the Proposed Project (this latter record dates back to 1958).
pale-yellow layia *Layia heterotricha*	--/--/1B.2	Annual herb that is often considered to be apple- or banana-scented with yellow to brown disk flowers. Associated with open clay or sandy, sometimes +/- alkaline soils. Blooming period: April–June. Elevation: 200–1,800 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Nonnative grassland may provide suitable habitat. No CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
Jared's pepper-grass *Lepidium jaredii* ssp. *jaredii*	--/--/1B.2	Annual herb with lemon yellow spoon-shaped flower. Occurs in washes, slopes, dry hillsides, vertic clay, acidic and gypsiferous soils and alluvial fans. Blooming period: March-May. Elevation: 500-700 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Nonnative grassland may provide suitable habitat. There is 1 CNDDB occurrence (near Jardine Road and the Estrella River) recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Santa Lucia bushmallow *Malaco-thamnus palmeri* var. *palmeri*	--/--/1B.2	Perennial deciduous shrub found on rocky soils. Blooms May-July. Elevation: 60-360 meters amsl.	**Possible** (PP, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable chaparral habitat with rocky soils occurs in the Proposed Project and alternatives areas. There is one CNDDB occurrence within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
woodland woollythreads *Monolopia gracilens*	--/--/1B.2	Annual herb with yellow flowers and erect and spreading stems. Blooming period: February–July. Elevation: 100–1,200 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Blue oak woodlands may provide suitable habitat for this species. One CNDDB occurrence was recorded approximately 2.4 miles southwest of the Proposed Project in 1957.
shining navarretia *Navarretia nigelliformis* ssp. *radians*	--/--/1B.2	Annual herb with light grey-green herbage and a white hairy inflorescence. Occurs in vernal pools and clay depressions. Blooming period: April–July. Elevation: 76–1,000 meters amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Seasonal wetlands, drainages and blue oak woodland in the vicinity may provide habitat. The nearest CNDDB occurrences were recorded 3 miles north and 0.2 mile south-southwest of the Proposed Project in 2006 and 2014, respectively.

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
prostrate vernal pool navarretia *Navarretia prostrata*	--/--/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 amsl.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Seasonal wetlands and blue oak woodland may provide habitat. No CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, or alternatives.
ANIMALS				
Invertebrates				
Crotch's bumble bee *Bombus crotchii*	--/CE/--	Bumble bee that builds nests underground, typically in rodent burrows, and occasionally in brush piles. Dependent on wildflowers for nectar sources and susceptible to pesticides and agricultural development. Currently restricted to the Central Valley and South Coast to inland within California.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable ground squirrel burrows are present in areas of grassland, but grasslands near agriculture where pesticide is applied are not expected to support this species. Three historic CNDDB occurrences (1960s or earlier) have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives. Significant agricultural and human development has occurred in the region since these historical CNDDB observations.
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.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable habitat exists in seasonal wetlands and drainages in the area. One seasonal wetland with adjacent upland is located approximately 115 feet east of Buena Vista Drive along the Proposed Project's 70 kV power line. Other seasonal wetlands occur within grassland areas north of Wellsona Road and near the western portions of Neal Springs Road, Charolais Road, and Estrella Road. Three CNDDB occurrences (2001, 2001,

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
				and 2005) were recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives. Portions of the Proposed Project, reasonably foreseeable distribution components, and alternatives are located within federally-designated vernal pool fairy shrimp critical habitat (Unit 29C, Central Coast Range Region) (see Figure 4.4-4).
Amphibians				
California red-legged frog (CRLF) *Rana draytonii*	FT/SSC/--	Medium-sized frog with prominent dorsolateral folds extending along the side of the body. Occurs in semi-permanent or permanent water at least 1.6 feet deep, bordered by emergent or riparian vegetation, and upland grassland, forest, or scrub habitats for refugia and dispersal.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	The Salinas River and some isolated ponds in the area provide suitable breeding habitat, while Huer Huero Creek, Estrella River, and other waterbodies provide suitable movement habitat. The nearest known breeding population of CRLF is located approximately 6 miles south of the Proposed Project in Graves Creek. Three CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives. No CRLF individuals were observed during surveys in 2019 (Horizon 2019b).
western spadefoot toad *Spea hammondii*	--/SSC/--	Small toad with warty skin and vertical pupils. Occurs in grasslands and valley foothill woodlands, with vernal pools that are used for breeding.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable breeding and upland habitat exists in seasonal wetlands in and near the Proposed Project, reasonably foreseeable distribution components, and alternatives areas. Three CNDDB occurrences (from between 2002 and

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
		Outside of breeding season, they burrow in upland areas.		2006) have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives. The closest of these is from approximately 1.3 miles south of the Proposed Project, reasonably foreseeable distribution components, and alternatives areas, near Huer Huero Creek.
Reptiles				
Northern California (=silvery) legless lizard *Anniella pulchra*	--/SSC/--	Slender lizard without legs. 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.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Sandy soils, such as those observed in Huer Huero Creek and other ephemeral drainages, are suitable habitat for this species. One CNDDB occurrence was recorded in 1994 approximately 5 miles northwest of the Proposed Project, reasonably foreseeable distribution components, and alternatives. Another occurrence from 1954 was recorded near the intersection of Huer Huero Creek and Union Road.
western pond turtle *Emys marmorata*	--/SSC/--	Small-to-medium sized turtle with a dark brown or dull olive shell. Found in permanent ponds, lakes, streams, irrigation ditches or permanent pools along intermittent streams, sandy banks (Morey 2000), and nearby uplands.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	The Salinas River and numerous ponds and drainages (and nearby uplands) in the area could support this species. Three CNDDB occurrences (from 2005 and more recent) are reported within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives. These occurrences were from near the Salinas River and its southwestern tributaries. Several pond turtles also were observed in Santa

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
				Ysabel Lake and its tributary in 2019 (Horizon 2019c).
coast horned lizard *Phrynosoma blainvillii*	--/SSC/--	Wide oval-shaped lizard with pointed fringe scales along the side of their bodies. Frequents a wide variety of habitats, but 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 where there is an abundant supply of native ants and other insects.	**Present** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	In general, sandy creek beds in the vicinity may provide suitable habitat for this species. One coast horned lizard was observed by biologists in a March 2016 approximately 0.5-mile northeast of the Estrella Substation site in Dry Creek (NEET West and PG&E 2017). However, this occurrence is not yet available in the CNDDB and no other records of coast horned lizard were identified in CNDDB within 5 miles of the Proposed Project, reasonably foreseeable distribution components, or alternatives.
Birds				
tricolored blackbird *Agelaius tricolor*	MBTA/SSC, CT/--	Medium-sized blackbird with a black body and glossy blue tint. Shoulder patches are red and bordered with white. Found in cattails and tules (*Schoenoplectus* spp.), Himalayan Blackberry (*Rubus discolor*), and other vegetation surrounding wetlands. Also found in agricultural and grain fields, grasslands, feedlots, riparian scrub habitats and vernal pools.	**Possible** (PP, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable foraging habitat exists in the area, but suitable nesting habitat is only present in tall emergent marsh vegetation in limited locations. Three recent (1999 or later) CNDDB occurrences are recorded within 5 miles of the Proposed Project and alternatives. Eight individuals were observed in 2016 (eBird 2020a) approximately 0.1 mile southwest of the Proposed Project's new 70 kV power line segment, north of Dallons Road and west of Golden Hill Road.

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
golden eagle *Aquila chrysaetos*	MBTA/FP, WL/--	Large dark brown eagle with a golden sheen on the back of the head and neck. Requires broad expanses of open country for hunting. Nests primarily in rugged mountainous areas with large trees or on cliffs (and sometimes in wetland, riparian and estuarine habitats).	**Present** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Multiple active and inactive nests have been identified in the vicinity, including one near the Cava Robles RV Resort and several in the vicinity of the Alternative SE-PLR-2 alignment. Known golden eagle nests are shown in Figure 4.4-5. Expansive grasslands and open oak woodlands within and around the Proposed Project, reasonably foreseeable distribution components, and alternatives areas provide suitable hunting and nesting habitat for this species. Multiple sightings of golden eagles have been 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 2020b). Horizon biologists also observed golden eagle individuals during March and July 2019 surveys (Horizon 2019a, 2019c).
grasshopper sparrow *Ammodramus savannarum*	MBTA/SSC/--	Sparrow that exclusively occurs in open grassland-type habitats and builds nests within clumps of grasses. This species preys upon grasshoppers and other insects, with a winter diet of seeds gleaned from the ground.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable grassland habitat is present in the area, including large patches of grasslands isolated from residential development. No CNDDB occurrences exist within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives, but the species has been observed in the region (eBird 2020c).

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
great blue heron *Ardea herodias*	MBTA/--/--	Large and lanky bird that forages in freshwater, brackish, and marine wetlands, as well as in flooded agricultural fields. Nests in colonies in trees located adjacent to waterbodies, rivers, estuaries, and marshes.	**Possible** (PP, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable nesting habitat is present in riparian woodlands and trees near perennial waterbodies that occur in the area. No CNDDB occurrences exist within 5 miles of the Proposed Project and alternatives; however, this species was observed near the Salinas River in 2019 and is known to occur in the region.
burrowing owl *Athene cunicularia*	MBTA/SSC/--	Long legged owl with bright yellow eyes that occurs in open, dry, annual, or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Burrowing owl uses rodent or other burrows for roosting and nesting cover.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Grasslands, open blue oak woodlands, and agricultural areas with dense burrow complexes throughout the Proposed Project, reasonably foreseeable distribution components, and alternative areas may provide suitable habitat. No CNDDB occurrences exist within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives. However, there are two observation records from 2018 and 2019, both southeast of Paso Robles (eBird 2019d). Additionally, literature indicates that wintering burrowing owls are occasionally observed in the Paso Robles region (Althouse and Meade, Inc. 2013).
Swainson's hawk *Buteo swainsoni*	MBTA/ST/--	Large, slim hawk with a dark or reddish-brown chest, brown or gray upperparts, light-colored stomach, and a gray (male) or brown (female) head. Found in, or near, wide-open grasslands	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	The Proposed Project, reasonably foreseeable distribution components, and alternatives areas contain suitable foraging and nesting habitat for this species. One CNDDB occurrence is recorded from Shimmins Canyon Road, north of Highway 46.

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
		and agricultural fields intermixed with native habitat (Cornell University 2015).		Additionally, one Swainson's hawk was observed during reconnaissance-level surveys conducted in July 2019 near the intersection of Jardine and Estrella roads (Horizon 2019c). Several other sightings have been documented in the vicinity (eBird 2020f).
northern harrier *Circus hudsonius*	MBTA/SSC/--	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.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable foraging habitat exists in the Proposed Project, reasonably foreseeable distribution components, and alternatives vicinity. No CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives. However, several individuals were observed foraging in the region during the March and July 2019 surveys. Multiple other sightings have been documented in the area, including one individual that was observed at the River Oaks Pond (eBird 2020g).
white-tailed kite *Elanus leucurus*	MBTA/FP/--	Medium-sized grey hawk with long, pointed wings. Yearlong resident in coastal and valley lowlands; rarely away from agricultural areas. Inhabits herbaceous and open woodlands near moist habitats, mostly in cismontane areas.	**Present** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable nesting and foraging habitat exist in the area. No CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives; however, several eBird observations are documented from the Templeton and Atascadero areas, with fewer observations near Paso Robles and Bern (eBird 2020h). Several individuals

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
				were observed foraging in open areas near Wisteria Lane during the 2019 surveys.
Prairie falcon *Falco mexicanus*	MBTA/WL/- -	Medium-to-large sized falcon with a gray-brown (sandy) colored body above and dark mottling below; has a large dark eye, dark ear patch, and white line over the eye. Found in dry, open country, including grassland, desert, and farmland around lakes and reservoirs, as well as above the treeline in high mountains (National Audubon Society 2017). Will winter in some cities.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable foraging habitat exists in the Proposed Project, reasonably foreseeable distribution components, and alternatives areas. However, nesting habitat (e.g., bluffs, scarps, and cliffs) is absent. One CNDDB occurrence is recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives. Additionally, individuals have been seen in the Salinas River greenbelt near intersection of North River Road and Union Road and at Barney Shwartz Park (eBird 2020j).
California condor *Gymnogyps californianus*	FE, MBTA/SE/FP-	Largest bird in North America with a wing span of nine and half feet. Black body with a white to reddish purple bald head. Forages in open areas. Roosts on ledges or cavities on cliffs. Also uses old-growth Douglas-fir, ponderosa pine, and snags, in undisturbed areas (Polite 2008).	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable foraging habitat is present in grasslands, open oak woodlands, and other open areas in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives. While the species could forage in the area, it is unlikely to nest so far inland from the coast. Additionally, suitable cliff and old growth nesting substrate is absent. No CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives. However, one eBird observation

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
				of the species is known near Atascadero from 2003 (eBird 2020k).
bald eagle *Haliaeetus leucocephalus*	DL, MBTA/SE, FP/--	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. Found near coasts, rivers, large lakes or marshes or other large bodies of open water.	**Present** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable nesting (e.g., tall trees in isolated surroundings) and foraging habitat for this species exists in the Proposed Project, reasonably foreseeable distribution components, and alternatives vicinity. No CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives; however, numerous sightings have occurred. Biologists observed one juvenile bald eagle soaring above the Proposed Project's 70 kV power line route near Golden Hill Road in 2016 (NEET West and PG&E 2017). Several other observations in the area, including at River Oaks Pond and along the Salinas River, Estrella River, and Huer Huero Creek have been recorded (eBird 2020l).
loggerhead shrike *Lanius ludovicianus*	MBTA/SSC/--	Black, white and grey passerine that generally occurs in open country with scattered shrubs and trees. Sits on low perches to scan for prey (rodents, lizards, birds, and insects).	**Present** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable nesting substrate (e.g., thorny brambles and trees) and foraging habitat exist in the Proposed Project, reasonably foreseeable distribution components, and alternatives areas. No CNDDB occurrences have been recorded within 5 miles of Proposed Project, reasonably foreseeable distribution components, and alternatives, but the species is known to occur in the

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
				region (eBird 2020m). Several loggerhead shrikes were observed in grassland and agricultural areas near the Proposed Project (along Union Road) during 2016 surveys (NEET West and PG&E 2017).
purple martin *Progne subis*	MBTA/SSC/- -	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.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable foraging habitat exists in the Proposed Project, reasonably foreseeable distribution components, and alternatives areas. Nesting habitat is relatively limited to forested areas with tree cavities. One occurrence from 2009 near Atascadero is recorded in CNDDB. Additionally, two individuals were observed near the intersection of Wellsona Road and Airport Road in 1991 (eBird 2020n), and several observations have been documented near Atascadero Lake as recently as 2019 (eBird 2020n).
Yellow warbler *Setophaga petechial*	MBTA/SSC/- -	Bird with a yellow body with yellow-green wings, yellow wing bars, and yellow tail patches. Its black eye is outlined by a thin yellow eye-ring outlines black eye (Bird Watcher's Digest 2017). Found in riparian willows and cottonwoods, old orchards, farm hedgerows, streamside	**Possible** (PP, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable nesting and foraging habitat (including Central Coast cottonwood-willow riparian forest) exist along the Salinas River. Although no CNDDB occurrences have been recorded within 5 miles of the Proposed Project and alternatives, numerous sightings of this species have been recorded in the area between 2014 and 2019, including at the River Oaks Pond (eBird 2020o).

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
		thickets, suburbs and parks (Bird Watcher's Digest 2017).		
Mammals				
Pallid bat *Antrozous pallidus*	--/SSC/--	Large bat with long forward-pointing ears that occurs in desert areas, moister oak woodlands, and redwood forests of coastal regions. At lower elevations, it is highly associated with oak woodlands and oak savanna.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Potential day and night roost sites exist within the blue oak woodlands and riparian woodland along the Salinas River, while open areas provide suitable foraging habitat. Two CNDDB occurrences (north of the Estrella Road/North River Road intersection along the Salinas River) are recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Townsend's big-eared bat *Corynorhinus townsendii*	--/SSC/--	Medium-sized bat with long, flexible ears, and small lumps on each side of the snout. Requires caves, mines, tunnels, buildings, tree cavities, or other human-made or natural structures for roosting. Found in a variety of habitats, including forests, arid desert scrub, caves, and buildings.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Potential day and night roost sites exist within the blue oak woodlands and riparian woodland along the Salinas River. Open areas represent suitable foraging habitat. No CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Monterey dusky-footed woodrat *Neotoma macrotis luciana*	--/SSC/--	Similar in appearance to the common rat species (*Rattus rattus* and *R. norvegicus*), but with larger ears and eyes, softer coats, and furred tails. Occurs in forest habitats of moderate canopy and	**Possible** (PP, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Dense woodlands along riparian corridors in the Proposed Project and alternatives vicinity may provide suitable habitat. No CNDDB occurrences have been recorded within 5 miles; however, biologists observed one woodrat midden approximately 0.5-mile

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
		moderate to dense understory. Can be abundant in chaparral habitats. Houses are built of sticks.		northwest of Estrella Substation during a 2016 survey (NEET West and PG&E 2017).
Salinas pocket mouse *Perognathus inornatus psammophilus*	--/SSC/--	Small rodent with a buff to pinkish back with blackish hairs and a white underside. Habitat relations are not well known, but may include sandy loam flats dominated by herbs and grasses.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Open blue oak woodland and grassland areas with sandy and other friable soils in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives (e.g., near Huer Huero Creek) would provide suitable habitat for this species. One CNDDB occurrence was recorded near the convergence of the Estrella River and Salinas River; however, this record dates back to 1918.
American badger *Taxidea taxus*	--/SSC/--	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. Occurs in open grassland, chaparral, and oak woodland with friable soils. Needs sufficient food and open, uncultivated ground.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Grasslands and blue oak woodlands within the Proposed Project, reasonably foreseeable distribution components, and alternative areas provide suitable habitat for this species. An abundance of prey species is present within these areas, including California ground squirrels, Botta's pocket gophers, and other small fossorial rodent species. Six CNDDB occurrences have been recorded within 5 miles of the Proposed Project, reasonably foreseeable distribution components, and alternative areas, including near Camp Roberts. A deceased (road-killed) badger was observed in 2019 along El Pomar

Common and Scientific Name	Legal Status Federal / State / CNPS	Description and Habitat	Potential to Occur	Explanation / Discussion[1]
				Drive near the existing Templeton Substation (PG&E 2019).
San Joaquin kit fox *Vulpes macrotis mutica*	FE/ST/--	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. Found in open areas, grasslands, scattered shrubs.	**Possible** (PP, RFDC, SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, SE-PLR-2, BS-2)	Suitable habitat exists within the Proposed Project, reasonably foreseeable distribution components, and alternatives areas. Grasslands and open blue oak woodlands in the area support an abundance of prey species (e.g., California ground squirrel, Botta's pocket gopher, small mammals, ground-nesting birds, and insects) and could provide den (natal or nonnatal) sites for San Joaquin kit fox. Orchards and vineyards provide marginal habitat. Focused surveys of the Estrella Substation site in 2016 did not identify dens or sign (e.g., tracks, scat) of kit fox (NEET West and PG&E 2017). In total, 61 CNDDB occurrences are recorded from 12 locations between 1971 and 2014, most of which are at Camp Roberts. One kit fox is known to have moved from Camp Roberts to the Carrizo Plain (California State University, Stanislaus 2016). However, Camp Roberts currently does not appear to support a population of kit foxes (Cypher et al. 2013). The nearest CNDDB occurrence was recorded approximately 0.3 mile southwest of the Proposed Project in 1991. Two recent CNDDB records are located near the Shandon Valley.

Notes:

PP = Proposed Project; RFDC = reasonably foreseeable distribution components; SS = Alternative Substation Site; PLR = Alternative Power Line Route; SE = Alternative Substation Expansion; BS = Alternative Battery Storage

1. The eBird database is peer-reviewed and updated more frequently than the CNDDB, so data from eBird were included in the special-status bird species analysis. The eBird database is not an official database maintained by a wildlife agency (e.g., CDFW, USFWS), but it is maintained by the Cornell Lab of Ornithology.

List of Abbreviations for Federal and State Species-Status:

MBTA = Migratory Bird Treaty Act
DL = De-listed
FE = Federal endangered
FT = Federal threatened
FP = State fully protected species
SE = State endangered
ST = State threatened
CT = State candidate threatened
CE = State candidate endangered
SSC = State species of special concern
SR = State rare
WL = North American Bird Conservation Initiative Watch List

1B = plants are considered rare, threatened, or endangered in California and elsewhere.
2 = plants are rare, threatened, or endangered in California, but more common elsewhere.

0.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 = Fairly threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

Sources: CDFW 2019a; Horizon 2019a, 2019b, 2019c; HWT 2019; NEET West and PG&E 2017; PG&E 2017, 2019

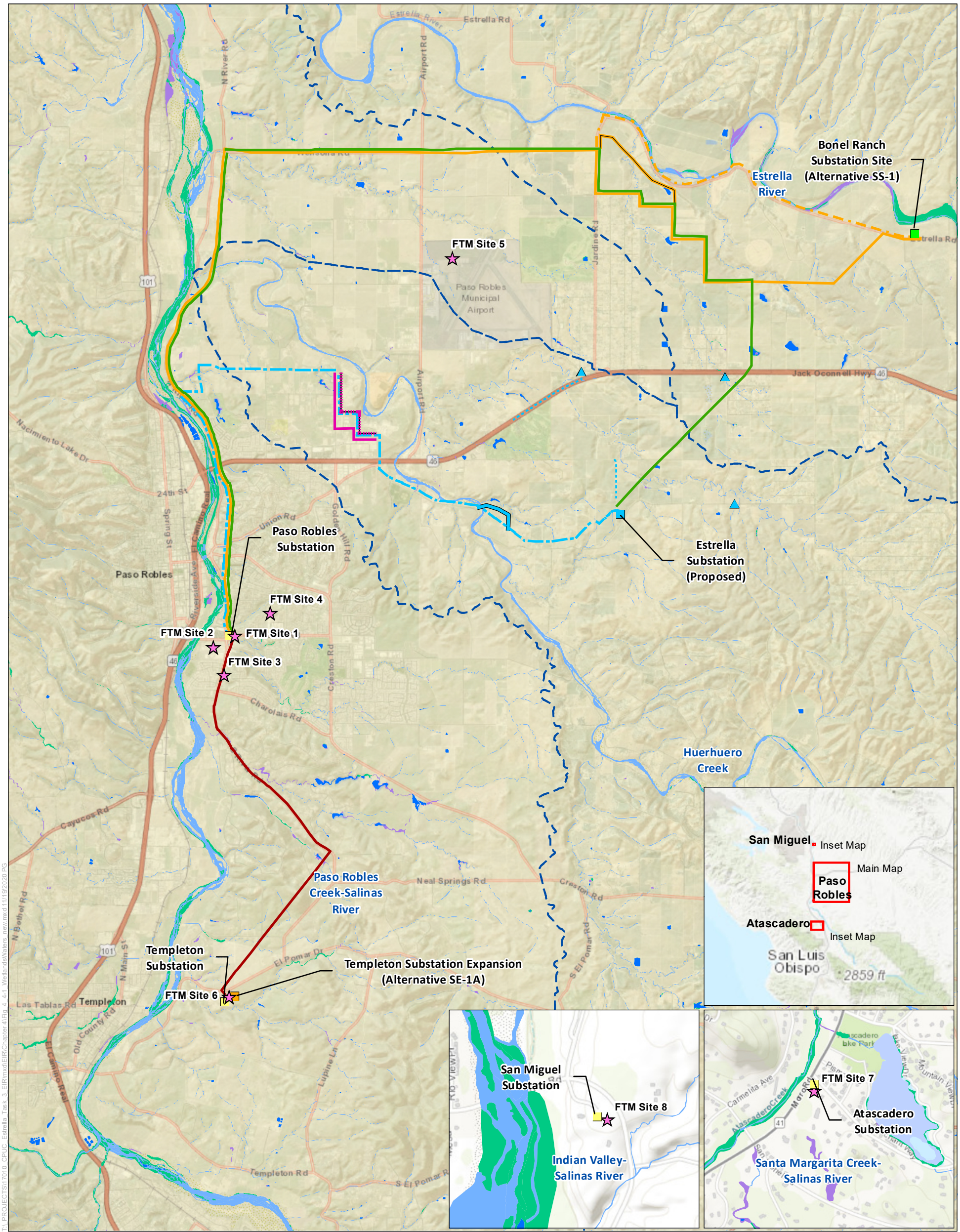

Figure 4.4.1
Waters and Wetlands

Estrella Substation and
Paso Robles Area Reinforcement Project

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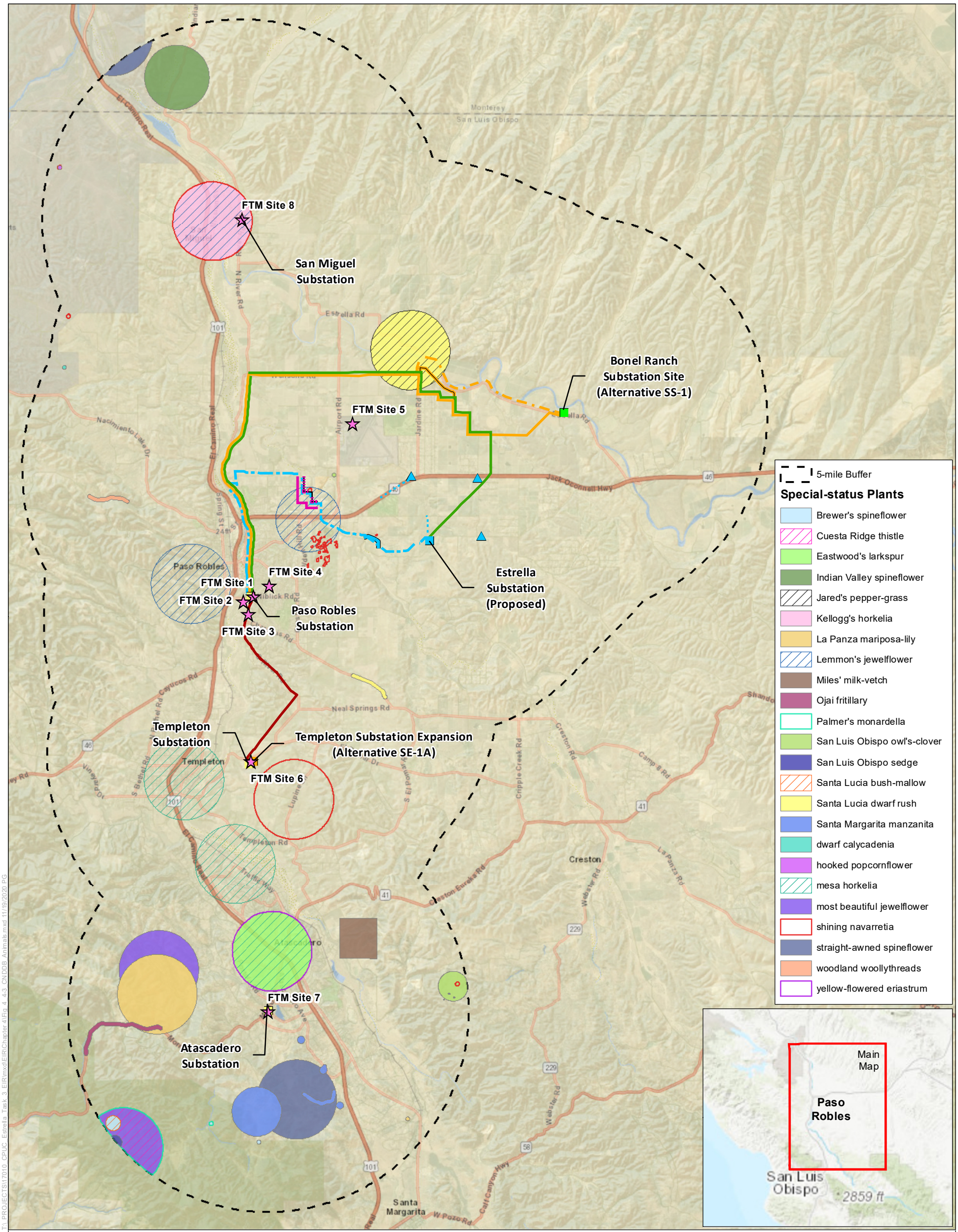

Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Foreseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

N

0 2 4
Miles

Figure 4.4-2
Special Status Plants

Source: ESRI 2020, PG&E 2019, SCWA 2017, USFWS 2020

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

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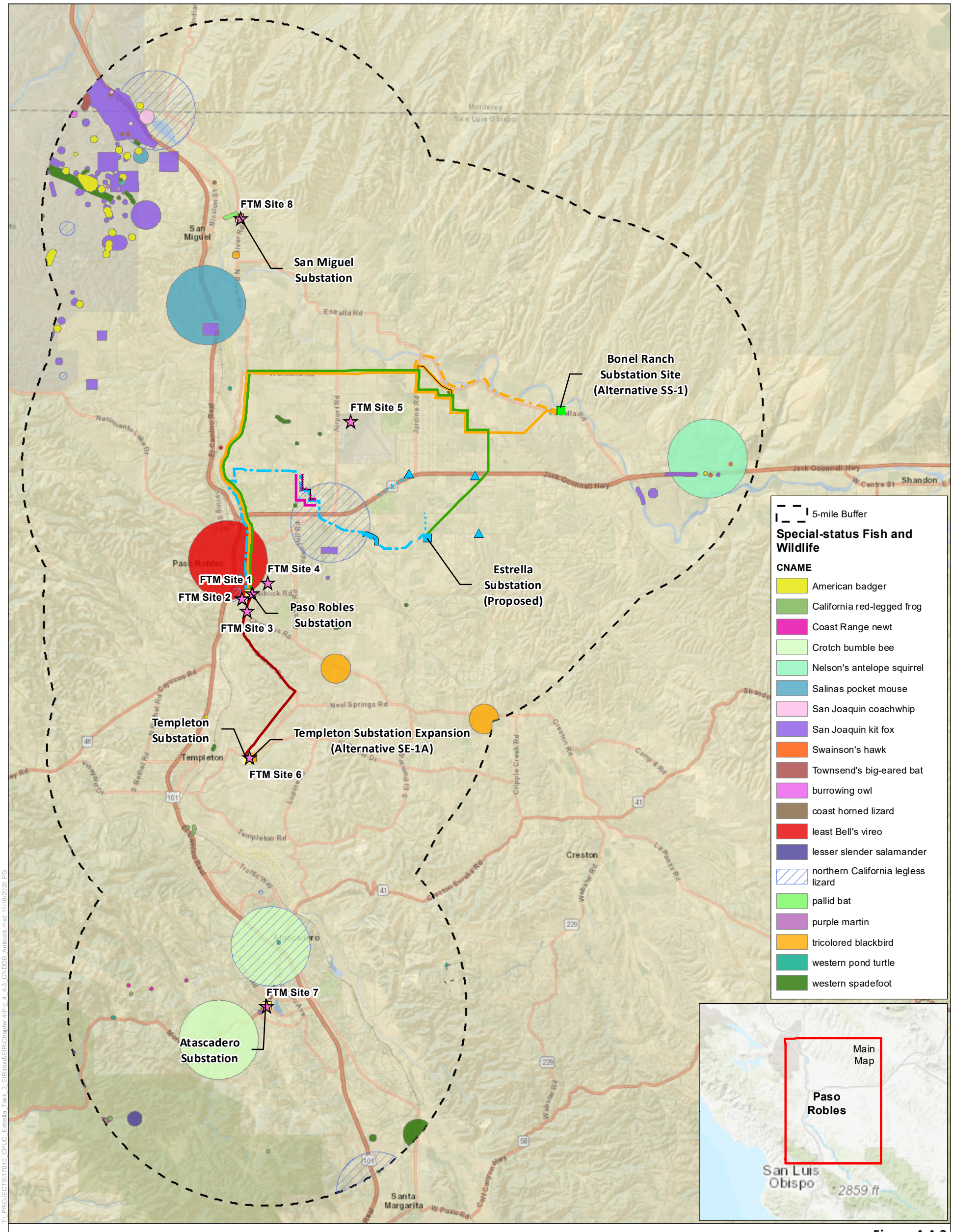

Figure 4.4-3
Special Status Animals

Source: ESRI 2020, PG&E 2019, SCWA 2017, USFWS 2020

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

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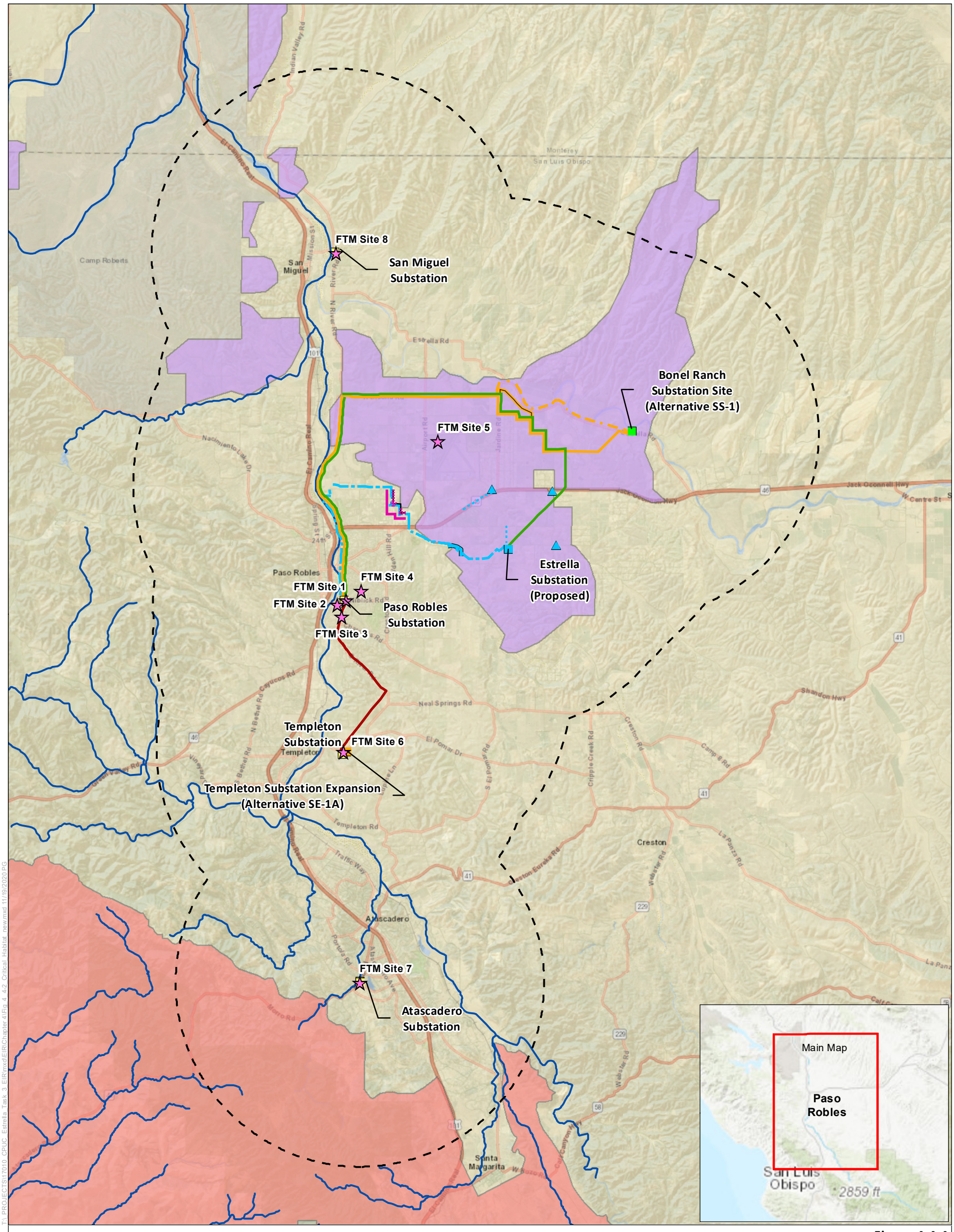

Figure 4.4-4
Critical Habitat

Source: ESRI 2018, PG&E 2019, SCWA 2017, USFWS 2020

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and
Paso Robles Area Reinforcement Project

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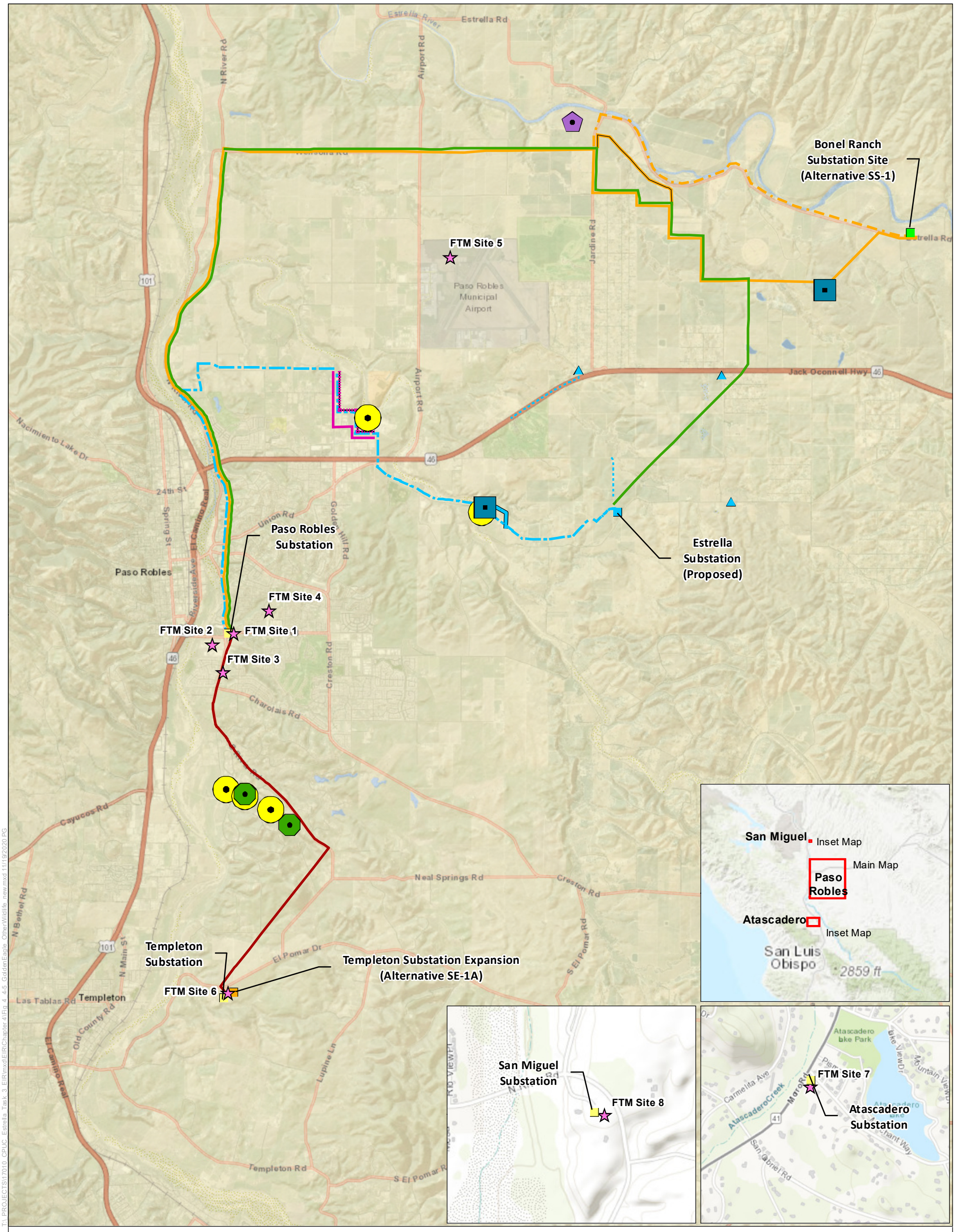

Figure 4.4-5
Known Golden Eagle Nest Locations and Other Wildlife Observations

Source: ESRI 2018, NEET West, PG&E 2019, Horizon 2019

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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Habitat Conservation Plans

Based on a review of the Ventura USFWS office's Habitat Conservation Plans (HCPs) and CDFW's California Regional Conservation Plans map (CDFW 2019b), there are no adopted HCPs or Natural Community Conservation Plans (NCCPs) in the vicinity of the Proposed Project, reasonably foreseeable distribution components, or alternatives.

4.4.4 Impact Analysis

Methodology

The analysis of impacts to biological resources that could result from implementation of the Proposed Project, reasonably foreseeable distribution components, and/or alternatives was primarily qualitative in nature. It involved considering the potential for proposed construction and operation activities to directly or indirectly adversely affect biological resources, including special-status plant and animal species, pursuant to the significance criteria described below.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in a significant impact to biological resources if they would:

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 CDFW or USFWS; or that meet the CEQA criteria for endangered, rare, or threatened; or fully protected or species of special concern;

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 CDFW or USFWS;

C. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

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

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

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.

In regard to significance criterion F above, no NCCPs or HCPs are adopted in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives. Therefore, there is no potential for conflicts and no impact would occur. This significance criterion is dismissed from further discussion.

The Applicants are independently required to comply with the federal and state Endangered Species Acts and other state or federal laws relevant to the protection of the environment. Specific biological resource mitigation requirements identified in this DEIR may be satisfied through compliance with permit conditions, or other authorizations that may be obtained by the Applicants, if these requirements are equally or more effective than the mitigation identified in this document. The Applicants shall provide the CPUC with copies of permits or other authorizations, and supporting documentation, to show that compliance with permitting conditions would be equally or more effective as mitigation for impacts to biological resources. The CPUC shall have sole discretion to determine whether compliance with permit conditions will also satisfy the performance standards or requirements identified in mitigation measures in this DEIR. If the CPUC determines that compliance with permit conditions would also satisfy the mitigation measures in this DEIR, the Applicants shall submit reports to the CPUC documenting compliance, consistent with the reporting requirements of the equivalent mitigation measure or measures.

Environmental Impacts

Proposed Project

Impact BIO-1: 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 CDFW or USFWS – *Less than Significant with Mitigation*

Construction

Construction of the proposed Estrella Substation and the 70 kV power line would involve vegetation clearing, excavation, grading, and related ground-disturbing activities. Additionally, access roads would be improved and/or established to allow for access to work areas. Helicopters would be used for a variety of tasks during the construction period and approximately 6 helicopter landing zones would be established and utilized in the Proposed Project area. These activities would have potential to impact special-status species both directly (e.g., crushing from mechanical equipment) and indirectly (e.g., habitat degradation, water quality impacts, etc.). The potential impacts for the different types of special-status species are discussed further below.

Plants

As indicated in Table 4.4-1, a number of special-status plant species could occur in the Proposed Project area, although no special-status plant species were identified during any of the several field surveys conducted for the PEA (NEET West and PG&E 2017). The Estrella Substation site is currently in agricultural production (i.e., vineyard); thus, special-status plant species would be unlikely to occur on the site. Much of the new 70 kV power line segment also is under agricultural production, although portions of the alignment along and north of Golden Hill Road

provide better habitat for plant species. The 70 kV reconductoring segment passes through areas of blue oak woodland, which would provide suitable habitat for several special-status plant species. Given that field surveys of the Proposed Project area in 2016 did not identify any special-status species, it would be unlikely that such species have established in the interim. Nevertheless, should unanticipated occurrences of special-status plant species arise along the 70 kV power line route, special-status plants could be directly affected as a result of mechanical crushing or removal, or related direct impacts. Additionally, indirect effects to these species may result from soil compaction, fugitive dust generation, erosion, and accidental releases of toxic substances.

Implementation of several APMs would avoid or minimize potential impacts on special-status plant species. Specifically, APM BIO-1 would require that biologists conduct pre-construction surveys for special-status species. **Mitigation Measure BIO-1** supplements APM BIO-1 and other APM requirements to include appropriately timed surveys for special-status plant species detection. If any federally or state-listed species are discovered, the Applicants would contact the appropriate resource agency (USFWS and/or CDFW). APM BIO-3 and Mitigation Measure BIO-1 would require that biologists monitor initial ground-disturbing activities in and adjacent to sensitive habitat areas to ensure that special-status species are not present and adversely affected. Finally, under APM GEN-1, the Applicants would prepare and implement a worker environmental awareness program (WEAP) for construction personnel. The WEAP would include training on the avoidance and minimization measures being implemented to protect biological resources during construction; information on federal and state environmental laws and the consequences/penalties for violating these laws (e.g., unauthorized take of a special-status species), and training on recognizing and avoiding sensitive species and habitat. All on-site construction personnel would be required to attend the training before they begin work on the Proposed Project.

Implementation of the above-described APMs and Mitigation Measure BIO-1 would reduce potential for direct impacts to any special-status plants that may be present within the Proposed Project footprint at the time of construction. Upon completion of the WEAP, construction workers would be more apt to identify special-status plant individuals on or near the construction site, while monitoring of initial ground-disturbing activities in and adjacent to sensitive areas would ensure that any special-status plant species present in these areas are avoided, if feasible. If special-status plant species are identified in the construction disturbance area, however, and avoidance is not possible, direct impacts to these species would occur, which would be a significant impact due to the potential loss of a high number of individuals or entire populations within the region. Thus, Mitigation Measure BIO-1 and **Mitigation Measure BIO-2** would be implemented to require that special-status plants are avoided where feasible and compensatory mitigation is provided for any unavoidable special-status plant species that are directly impacted during construction.

As described in Section 4.10, “Hydrology and Water Quality,” the Proposed Project would be subject to the Construction General Permit, which would require preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would include BMPs to prevent erosion and protect water quality, including measures that minimize impacts from fugitive dust (APM AIR-3 also would minimize fugitive dust generation). .Compliance with the Construction General Permit, as well as implementation of APMs HYDRO-1 and HAZ-1 (although primarily focused on avoiding harm to people, APM HAZ-1 also serves to prevent

deleterious effects to protected species, their habitats, and protected waters of the U.S. and State), would avoid or reduce potential impacts on water quality and sensitive aquatic habitats, including any potential indirect effects on special-status plants. Overall, with implementation of these measures (APMs and mitigation measures), construction-related impacts to special-status plants would be less than significant with mitigation.

Invertebrates

As described in Section 4.4.3, portions of the Proposed Project area are designated critical habitat for vernal pool fairy shrimp, although no vernal pools or seasonal wetlands were identified within the Proposed Project's disturbance area. As such, no vernal pools or seasonal wetlands that represent potential habitat for vernal pool fairy shrimp are expected to be impacted by the Proposed Project. Additionally, Crotch's bumble bee, which utilize rodent burrows, tufts of grass, old bird nests on the ground, rock piles, or cavities in dead trees for nest construction, has potential to occur within the Proposed Project area. Potential direct impacts to vernal pool fairy shrimp would include injury or death from construction equipment. Indirect effects (e.g., erosion and sedimentation, fugitive dust, and accidental releases of toxic chemicals) could also occur, which would be significant without implementation of preventative measures. Direct impacts to Crotch's bumble bee could occur if rodent burrows within the Proposed Project disturbance area were utilized as nests and destroyed through construction activities.

As noted above, implementation of APM HYDRO-1 would avoid impacts to sensitive aquatic features, including vernal pools and seasonal wetlands that represent potential vernal pool fairy shrimp habitat. Specifically, APM HYDRO-1 would require that permanent structures, staging and work areas, and access roads be sited/routed through uplands and outside of existing drainage features to the extent feasible. Prior to construction, sensitive aquatic features slated for avoidance would be identified in the field and clearly marked for avoidance. Additionally, as described above under special-status plants, the Applicants would be required to implement a SWPPP, which would avoid or reduce stormwater and sediment discharges from construction sites, along with fugitive dust (also minimized through APM AIR-3). Implementation of APM HAZ-1 also would minimize potential for hazardous materials releases that could indirectly affect vernal pool fairy shrimp.

Pre-construction surveys required under APM BIO-1 and Mitigation Measure BIO-1 would identify Crotch's bumble bee individuals or nests that could be present within the Proposed Project footprint. Additionally, implementation of APMs BIO-3 and GEN-1 would further reduce potential for any impacts to Crotch's bumble bee during construction. As a State candidate endangered species, the Applicants would be required to notify and coordinate with CDFW regarding any Crotch's bumble bee nests or individuals identified during pre-construction surveys or during the course of construction activities. If necessary, the Applicants may be required to obtain regulatory approval to relocate the nest. Given implementation of these measures, impacts to special-status invertebrates during construction would be less than significant with mitigation.

Amphibians

Due to the lack of suitable habitat, it is unlikely that special-status amphibians would utilize the proposed Estrella Substation site. However, it is possible that California red-legged frog (CRLF)

and western spadefoot toad could utilize seasonal wetlands, drainages, ponds, other aquatic resources, as well as adjacent grasslands and upland habitats, along the Proposed Project's 70 kV power line route for foraging, breeding, or aestivation[1]. As discussed above, the Proposed Project has been designed to avoid sensitive aquatic features, which would include any features that would provide suitable aquatic breeding and aquatic non-breeding habitat for these species. Nevertheless, there would be potential for direct significant impacts to CRLF and western spadefoot toad if individuals were present in upland areas where Proposed Project construction activities would occur. Additionally, indirect significant effects to CRLF and western spadefoot toad habitat could occur from discharge of sediment-laden runoff or hazardous materials releases that reach aquatic features.

Implementation of APM BIO-1 and Mitigation Measure BIO-1 would reduce potential for undetected western spadefoot toad or CRLF individuals in Proposed Project areas to be directly impacted at the start of construction. Likewise, monitoring of initial ground-disturbing activities under APM BIO-3 and Mitigation Measure BIO-1 (through pre-construction surveys, biological monitoring, the monitor's stop-work authority, and exclusion fencing) would ensure that CRLF and western spadefoot toad individuals are not present during these activities, such that they could be directly impacted. Implementation of the WEAP under APM GEN-1 also would minimize potential for adverse direct impacts to special-status amphibians. Further, APM BIO-4 and Mitigation Measure BIO-1 would require that all trenches and excavations in excess of 2 feet deep have a sloped escape ramp or be covered at the end of the day, which would minimize potential for CRLF or western spadefoot toad individuals to become entrapped in Proposed Project construction areas.

As discussed above, the Applicants would be required to implement a SWPPP, which would avoid or reduce stormwater and sediment discharges from construction sites. Implementation of APM HAZ-1 also would minimize potential for hazardous materials releases that could indirectly affect CRLF and western spadefoot toad. Overall, with implementation of the above-described measures, the impacts to special-status amphibians during construction would be less than significant with mitigation.

Reptiles

As identified in Table 4.4-1, special-status reptiles with potential to occur in the Proposed Project vicinity include the Northern California legless lizard, coast horned lizard, and western pond turtle. Suitable habitat for Northern California legless lizard and coast horned lizard exists along the Dry Creek riparian area, which is located approximately 0.5-mile northeast of the proposed Estrella substation site. Along the 70 kV power line route, suitable habitat exists for all three of these special-status reptile species. Perennial and ephemeral drainages, as well as ponds and other aquatic features in the area of the 70 kV power line alignment could support western pond turtle, and western pond turtle may nest within immediately adjacent upland areas of natural vegetation. If present in Proposed Project construction areas, special-status reptile individuals may be directly injured or killed by vehicles or construction equipment during

[1] Aestivation is a prolonged dormancy for an animal during a hot or dry period. Aestivation is characterized by inactivity and a lowered metabolic rate, which is entered into in response to high temperatures or arid conditions.

vegetation removal, grading, clearing, and excavation activities. Temporary impacts may also occur from disruptive noise and vibration from heavy equipment and other construction activities. Additionally, indirect impacts could occur from fugitive dust landing on their habitats or affecting their prey populations, as well as impacts to water quality from erosion, sedimentation, and hazardous materials. Any of these direct or indirect impacts could be significant.

As described above, substantial adverse impacts would be avoided through implementation of APMs requiring pre-construction surveys (APM BIO-1) and Mitigation Measure BIO-1; monitoring of initial ground-disturbing activities near sensitive areas (APM BIO-3 and Mitigation Measure BIO-1); providing special-status species protections, including requiring that trenches and excavations in excess of 2 feet deep have sloped escape ramps or are covered overnight (APM BIO-4), implementation of a WEAP (APM GEN-1), and implementation of Mitigation Measure BIO-1. Additionally, the Applicants would be required to implement a SWPPP, which would minimize stormwater and sediment discharges from construction sites. Implementation of APM HAZ-1 also would minimize potential for hazardous materials releases that could indirectly affect special-status reptiles. With implementation of these APMs and Mitigation Measure BIO-1, impacts to special-status reptiles from Proposed Project construction would be avoided. As such, the Proposed Project is not expected to result in the loss of special-status reptiles that would substantially affect local populations or the presence of such species in the region. Therefore, effects from the Proposed Project would be less than significant with mitigation.

Birds

Numerous bird species may utilize the region around the Estrella Substation site and along the 70 kV power line route to forage and/or nest, as indicated in Table 4.4-1. These include tri-colored blackbird, grasshopper sparrow, golden eagle, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, prairie falcon, bald eagle, loggerhead shrike, purple martin, and yellow warbler. The proposed Estrella Substation site generally would not provide suitable habitat for special-status bird species, but suitable foraging habitat (i.e., grasslands) exist adjacent to the substation site, southeast of Union Road. Additionally, special-status birds could use nearby transmission towers, and surrounding grasslands and oak woodlands to nest. Suitable foraging and nesting habitat exists for a variety of special-status bird species along the proposed 70 kV power line route, particularly the portions of the alignment bordering or passing through grasslands and blue oak woodlands.

Construction could disturb breeding and nesting birds in the area by generating noise, creating visual distractions, or having a direct impact on occupied nests (e.g., vegetation removal or nest abandonment) and burrows (used by burrowing owls). Uncovered pipes or conduit could be used as nesting habitat for birds, and if left uncovered, birds could become trapped. Removal and disturbance of vegetation and trees along the proposed 70 kV power line route could directly impact foraging and nesting habitat for special-status birds. There is a higher potential for impacts during the nesting/breeding season for birds because of the potential effects on reproductive success and young. Without implementation of preventative measures, these impacts would be significant.

Implementation of applicable APMs and Mitigation Measure BIO-1, which would supplement the APMs, would substantially avoid or reduce the potential for impacts to special-status birds.

Specifically, as described above, APM BIO-1 and Mitigation Measure BIO-1 would require pre-construction surveys, which would identify special-status bird species that may be present on or near work sites. If work is scheduled during the nesting season (January 15 through August 31), APM BIO-2 and Mitigation Measure BIO-1 would require that nest detection surveys be implemented corresponding with the species-specific buffers set forth in PG&E's *Nesting Birds: Specific Buffers for PG&E Activities* (Appendix E to the PEA). The standard buffer distances under these guidelines range from 300 feet for white-tailed kite to 2,640 feet for golden eagle. If active nests containing eggs or young are discovered during these surveys, the buffer would be implemented to preclude mechanical construction activities in these areas until the young have fledged. In addition to these APMs, an MRV is under consideration to route the 70 kV power line around a potential golden eagle nest located along the bank of Huer Huero Creek at Union Road. If this potential nest is determined to be occupied prior to construction, the Applicants would utilize the MRV to avoid potential impacts to the nest from constructing the new power line in close proximity. In the absence of the MRV, if the golden eagle nest is active, construction of the Proposed Project would occur near the nest location and could result in the permanent loss of this nest site, which would be significant. Overall, with implementation of the above-described APMs, and Mitigation Measures BIO-1 and the MRV, impacts to nesting birds and special-status bird species would be less than significant with mitigation.

Mammals

Several special-status mammals have the potential to occur within the vicinity of the Proposed Project, including pallid bat, Townsend's big eared bat, Monterey dusky-footed woodrat, Salinas pocket mouse, American badger, and San Joaquin kit fox (see Table 4.4-1). While the vineyards within the Estrella Substation site provide low to marginal habitat value for these species, it is possible that they could occur. The nonnative grasslands, blue oak woodlands, riparian woodland, and sandy wash along or near the 70 kV power line route provides better habitat for the special-status species. Oak trees and buildings in the vicinity of the substation site and along the power line route may provide suitable day or night roosts for pallid bat and Townsend's big-eared bat, and these species may forage relatively long distances from their roosts.

Direct impacts to special-status mammals that travel into an active construction area could occur from construction equipment and activities. Indirect effects, including displacement, could result from human presence and noise. Additionally, bat roosts could be destroyed through removal of trees along the 70 kV power line. Night lighting may also cause bats to become disoriented and alter their ability to avoid objects. As described previously, implementation of applicable APMs and Mitigation Measure BIO-1 will avoid or minimize the vast majority of potential impacts to special-status species, including special-status mammals. Implementation of APM BIO-1 and Mitigation Measure BIO-1 will ensure that no special-status mammal individuals are present on the Proposed Project site work areas prior to construction, while APM BIO-3 and Mitigation Measure BIO-1 would ensure that special-status mammal species are not adversely impacted during initial ground-disturbing activities near sensitive areas. Additionally, APM BIO-4 and Mitigation Measure BIO-1 would provide that trenches and excavations at the construction site are fitted with escape ramps or covered overnight to prevent special-status mammal species from becoming entrapped and requires compliance with the County of San Luis Obispo's San Joaquin Kit Fox CEQA Mitigation Measures. Finally, APM GEN-1 would require that the Applicants prepare and administer a WEAP, which would ensure that construction workers are trained regarding special-status mammal species that could potentially occur on the site.

With respect to potential impacts on special-status bats, implementation of pre-construction surveys under APM BIO-1 and Mitigation Measure BIO-1 would identify potential roosts within trees along the Proposed Project 70 kV power line alignment. If any such roosts or bat individuals were identified, the Applicants would be required to notify and coordinate with CDFW. Additionally, APM AES-2 would require that construction lighting be selectively placed and shielded to minimize nighttime glare, which would minimize potential for this lighting to adversely affect bats. Impacts related to noise and human activity would be temporary, lasting only for the duration of the construction period. Overall, with implementation of the measures described above, impacts to special-status mammals are not expected to result in the loss of individuals that could affect local populations or each species presence within the region. Therefore, impacts to special-status mammals would be less than significant with mitigation.

Conclusion

Although much of the Proposed Project area is agricultural or urban/developed in nature (thus providing marginal habitat for special-status species), portions of the Proposed Project's 70 kV power line route border or pass through grasslands, blue oak woodland, riparian forest, and other habitats that are suitable for a variety of special-status species. Proposed Project construction activities would have potential to impact special-status species, both directly and indirectly; however, implementation of APMs and Mitigation Measure BIO-1and BIO-2, and the MRV, would reduce impacts to a level that is **less than significant with mitigation.**

Mitigation Measure BIO-1: Actions to Further Avoid and Minimize Impacts to Special-Status Species.

The additional mitigation actions below supplement the APMs included as part of the Proposed Project and as applicable to alternatives and the distribution components and are discussed separately by resource.

a. **Special-Status Plants:** Pre-construction surveys required under APM BIO-1 shall be conducted of all proposed work, plus a 100-foot buffer, within 1 year before commencement of ground-disturbing activities according to the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018 or current version). Floristic surveys shall be performed during the appropriate bloom period(s) for each species. HWT/PG&E or their contractor(s) shall work with the CDFW-approved qualified botanist to identify plants in the field by staking, flagging, or fencing to avoid, where feasible, special-status plants that are detected within the temporary or permanent work areas, or within a 100-foot radius of these areas.

b. **Biological Monitoring, Sensitive Habitat Areas, and Special-Status Species:** HWT/PG&E shall retain a CPUC-, USFWS-, and CDFW-approved biologist(s) to conduct pre-construction surveys for special-status plants and wildlife prior to initial vegetation clearance, grubbing, and ground-disturbing activities.

The pre-construction surveys shall be conducted no earlier than 30 days prior to surface disturbance. The results of the pre-construction surveys shall be documented by the approved biologist in a pre-construction survey report. The pre-construction survey report shall be submitted to the CPUC for review and approval

prior to the start of construction, and the results shall be submitted to USFWS and CDFW as required by any regulatory permits or approvals. The pre-construction study report shall include the following:

- Type, location, and size of project
- Date, time, weather, surrounding land uses
- Evaluation of type and quality of habitat
- Work description and methods for avoidance or minimization of ground disturbance, including biological monitoring during construction
- Anticipated impacts and proposed mitigation
- Map of location of work area

Sensitive habitat areas, plus a minimum 5-foot buffer for wetlands and waters of the U.S., that will be avoided by construction shall be fenced with orange safety fencing. Biological monitoring required by APM BIO-3 is extended to be necessary when each portion of previously undisturbed ground is disturbed, based on special-status species' requirements and the profession opinion of the qualified biological monitor; however, work near wetlands and waters of the U.S. will be monitored by a biological monitor over its duration.

In order to ensure that habitats are not adversely affected, the USFWS- and CDFW-approved biologist shall flag boundaries of habitat, which must be avoided. When necessary, the biologist shall also demark appropriate equipment laydown areas, vehicle turn around areas, and pads for placement of large construction equipment, such as cranes, bucket trucks, and augers. When appropriate, the biologist shall make office and/or field presentations to field staff to review and become familiar with natural resources to be protected on a project site-specific basis.

The USFWS- and CDFW-approved biologist shall be contacted to perform a pre-activity survey when vegetation trimming is planned in sensitive habitats. Whenever possible, vegetation in sensitive habitats, such as blue oak woodlands, shall be scheduled for trimming in non-sensitive times (i.e., outside of breeding or nesting seasons).

HWT/PG&E shall maintain a library of special-status plant species locations; known to HWT/PG&E, occurring within the project survey area. "Known" means a verified population either extant or documented using record data. Information on known sites may come from a variety of record data sources, including local agency HCPs, focused plant surveys, pre-construction surveys, or biological surveys conducted for environmental compliance of the Project. Plant inventories shall be consulted as part of pre-construction survey procedures.

In the event of the discovery of a previously unknown special-status plant, the area shall be marked as an environmentally sensitive area, and avoided to the maximum

extent practicable. If avoidance is not possible, HWT/PG&E shall consult with USFWS and/or CDFW, as appropriate, given the species' status.

Gravel bags shall be placed along the bottom of the fence to minimize erosion or sedimentation into nearby wetlands and/or waters of the U.S., and removed upon completion of construction. Any project related work scheduled to occur within the exclusion/buffer zone of the wetland shall be conducted when the wetland is dry as determined by the approved biological monitor. Best management practices (BMPs) referred to in APM BIO-3 indicate stormwater and water quality projection BMPs. Weekly biological construction monitoring reports shall be prepared and submitted to the appropriate permitting and responsible agencies throughout the duration of the ground-disturbing and vegetation-removal construction phase. Monthly biological construction monitoring reports shall be prepared and submitted to the CPUC throughout the duration of project construction to document compliance with environmental requirements. In the event that any work will occur beyond the approved limits, it shall be reported to HWT's and PG&E's compliance teams and the CPUC.

c. **Wildlife Protection from Work Areas:** In addition to the requirements of APM BIO-4, HWT/PG&E shall retain a CPUC-approved biologist to inspect all steep trenches and excavations during construction twice daily (i.e., morning and evening) to monitor for wildlife entrapment. Large/steep excavations shall be covered and/or fenced nightly to prevent wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route.

If wildlife is located in a trench or excavation, the on-site biological resource monitor shall be contacted immediately to remove them if they cannot escape unimpeded. If the biological resource monitor is not qualified to remove the entrapped wildlife, a recognized wildlife rescue agency may be employed to remove the wildlife and transport them safely to other suitable habitats outside of the work area.

d. **Nesting Birds:** Activities conducted pursuant to APM BIO-2 shall consider the nesting bird season revised to be January 15 through August 31.

e. **San Joaquin Kit Fox:** HWT/PG&E shall implement the County of San Luis Obispo's standard kit fox mitigation measures, including the following:

- Retain 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.
- Include kit fox protection measures on project plans.
- Require a maximum 25 mile per hour speed limit at the project site during construction.
- Cover excavation deeper than 2 feet at the end of each working day or provide escape ramps for kit fox.

- Inspect pipes, culverts, or similar structures for kit fox before burying, capping, or moving.
- Remove food-related trash from project site.
- If a kit fox is discovered at any time in the project area, all construction must stop and the CDFW and USFWS contacted immediately. The appropriate federal and state permits must be obtained before the project can proceed.

Mitigation Measure BIO-2: Compensate for Impacts to Special-Status Plant Species.

If avoidance of special-status plants is not feasible, HWT and PG&E shall implement measures to compensate for impacts to special-status plants. Compensation may be provided by purchasing credits at a CDFW-approved mitigation bank (provided at a minimum 1:1 ratio [mitigation to impact]), or through transplanting perennial species and collecting and dispersing seed of annual species (i.e., salvage and relocation) under the direction of CDFW. Where salvage and relocation is demonstrated to be feasible and biologically preferred by the CDFW, it shall be conducted pursuant to a CPUC- and CDFW-approved salvage and relocation plan that details the methods for salvage, stockpiling, and replanting, as well as the characteristics of the receiver sites. Monitoring of plant populations shall be conducted annually for 5 years to assess the mitigation's effectiveness. At the end of the 5-year monitoring period, the mitigation shall have met the following success criteria:

- A surveyed plant population size count roughly equal to or greater than the number of individuals transplanted (this total may include both transplanted individuals that have survived, as well as any additional supplemental plantings following the initial transplantation that have survived at least two growing seasons), and
- Less than 5 percent cover of invasive weeds within the restoration area.

Operation and Maintenance

As described in Chapter 2, *Project Description,* the Proposed Project components would be operated remotely and no staff would be present on-site. The substation and power line would be inspected periodically, with any maintenance and repairs conducted on an as-needed basis. In general, operation and maintenance activities would have low potential to substantially impact special-status species. Vegetation management activities to maintain clearances would not be expected to substantially impact special-status plants, particularly since special-status plants have not been observed along the Proposed Project 70 kV route.

The transmission and power lines, towers and poles associated with the Proposed Project could cause electrocution and be collision hazards for birds. Raptors often perch or nest on transmission towers and are attracted to power poles in open habitats (e.g., grasslands, agricultural fields, deserts, pastures) where few natural perches exist (Avian Power Line Interaction Committee [APLIC] and USFWS 2005). In the APLIC's 1975 first edition of *Suggested Practices for Raptor Protection on Power Lines*, the text stated that, "…studies conducted in the western United States document electrocution losses of egrets, herons, crows, ravens, wild

turkeys and raptors, with 90% of the electrocution victims being golden eagles" (APLIC 2006). Electrocution occurs when a perching bird (typically large perching birds such as hawks and eagles) simultaneously contacts two energized phase conductors or an energized conductor and grounded hardware. As described in Section 4.4.3, numerous special-status birds, including golden eagle, are known to occur in the vicinity of the Proposed Project and could be vulnerable to electrocution. In addition to electrocution, birds could collide with towers, poles, or power lines, especially during the spring migration when strong winds and storms are more likely to force birds to fly at relatively low altitudes. Juvenile birds, in particular, may be inept flyers that can collide with power lines and structures, resulting in injury or death. Electrocution of special-status birds or collisions with power line facilities would be considered a significant impact.

As described in Chapter 2, *Project Description,* and the PEA, the conductors for the Proposed Project would be installed in accordance with raptor safety requirements. Specifically, the conductors would be specular (i.e., shiny) and more visible to birds upon initial installation, allowing them time to adjust to the new facilities. Additionally, the Applicants would implement the avian protection measures outlined in *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006), which include solutions such as spacing phase conductors (e.g., greater than the width of birds' wingspans) such that electrocution hazards are minimized. To ensure that all potential hazards to special-status birds are minimized to the extent possible, **Mitigation Measure BIO-3** also would be implemented, which would require that the Applicants incorporate guidance in *Reducing Avian Collisions with Power Lines: State of the Art in 2012* (APLIC 2012) and develop an Avian Protection Plan. Finally, as noted above under "Construction", the Applicants would implement an MRV prior to construction to avoid a potential golden eagle nest along Huer Huero Creek at Union Road if this nest is determined to be occupied or is expected to be used by golden eagles in future nesting seasons (based on prior observations and the species' nest site fidelity). This would reduce potential for juvenile eagles to collide with the power line close by the nest, or for eagles associated with the nest to be electrocuted from perching on the nearby power line or supporting structures.

Overall, it is worth noting that the area in which the Proposed Project facilities would be installed already includes large 230/500 kV transmission lines, as well as 70 kV and 21 kV lines. Thus, the additional risk to special-status species, including birds, would be incremental and not substantially new for this region. Operation and maintenance activities are not anticipated to substantially affect the local population resilience or presence of special-status invertebrates, amphibians, reptiles, or mammals in the region due to the infrequent and limited nature of these activities. As such, the Proposed Project's impacts to special-status species during operation and maintenance would be **less than significant with mitigation.**

Mitigation Measure BIO-3: Minimize Impacts to Raptors and Other Avian Life from Transmission and Power Line Facilities.

HWT, PG&E, and/or their contractor(s) shall construct all aboveground power transmission and power lines to the APLIC's recommended publications: *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*, and *Reducing Avian Collisions with Power Lines: State of the Art in 2012* (APLIC 2006, 2012). In conjunction with these publications, HWT and PG&E shall be responsible for creating an Avian Protection Plan that incorporates relevant project-specific guidelines found in APLIC's and USFWS' 2005 *Avian Protection Plan Guidelines*. As part of the Avian

Protection Plan development, HWT and PG&E shall work with USFWS to determine the need for installation of bird diverters in areas near known golden and bald eagle nests.

Operational construction or replacement work shall be avoided during the nesting bird season (January 15 to August 31) to the extent feasible. If infeasible, HWT and PG&E shall retain a CPUC-approved biologist to conduct a nesting bird survey of the surrounding 500-foot area to determine if any active nest is present. If an active nest is found, the biologist shall establish a no-disturbance nesting buffer until the nest is inactive. If operational construction activities must occur within this buffer, the biologist shall coordinate with CDFW and, as necessary, USFWS to determine buffer reductions and/or nest monitoring to avoid impacts to active nests.

Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS – *Less than Significant with Mitigation*

Construction

The proposed Estrella Substation site is currently in agricultural production and there are no riparian habitats or sensitive natural communities within the site. The Proposed Project's 70 kV power line route, by contrast, would span several riparian corridors, including those along Huer Huero Creek and other unnamed ephemeral drainages in the area (see Figure 4.4-1). Additionally, three vegetation communities observed in the vicinity of the Proposed Project 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 Paso Robles General Plan (2011). 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 natural communities by CDFW.

As described in Impact BIO-1, the Proposed Project has been designed to avoid all riparian habitats. APM HYDRO-1 requires that permanent structures, staging and work areas, and access roads be sited/routed through uplands and outside of existing drainage features to the extent feasible. Prior to construction, sensitive aquatic features slated for avoidance would be identified in the field and clearly marked. As a result, riparian areas would be avoided and no direct impacts to riparian areas would occur as a result of Proposed Project construction. Similarly, the Proposed Project has been designed to avoid central coastal scrub, Central Coast cottonwood-willow riparian forest, coastal and valley freshwater marsh, and sandy wash vegetation communities; however, up to 0.13 acre of direct permanent impacts to blue oak woodlands would occur as a result of pole and tower installation, vegetation removal, and clearing activities. This would include up to three oak trees that would need to be removed for Proposed Project construction. Further, approximately 6.41 acres of blue oak woodlands would be temporarily affected from construction activities. As described in Chapter 2, *Project Description,* all areas temporarily disturbed by the Proposed Project would be restored to the extent practicable, following construction.

Although the three oak trees that would be removed as part of the Proposed Project construction would represent a small fraction of the trees in the area, given blue oak woodland's status as a sensitive natural community, the permanent and temporary impacts described above would be considered significant without mitigation. To mitigate these impacts,

Mitigation Measure BIO-4 would be implemented, which would require development and implementation of a Habitat Restoration Plan for impacts to blue oak woodland habitat. This would include replacement of permanently impacted blue oak woodland at a ratio of 1.1:1, including replacement of removed trees based on the tree diameter at breast height (dbh) (approximately 4.5 feet above grade). This mitigation is consistent with the City of Paso Robles's Oak Tree Ordinance and would reduce the impacts on blue oak woodland from the Proposed Project to a level that is less than significant.

In addition to the direct impacts, ground disturbance during construction of the Proposed Project could result in release of sediments off-site and stormwater runoff, resulting in indirect impacts to riparian areas and sensitive natural communities. Construction also requires the use of heavy equipment, fuels, lubricants, and solvents, which if released off-site, could impact these same areas. These potential impacts would be avoided or minimized through implementation of the SWPPP, which would be required per the Construction General Permit. Additionally, implementation of APM HAZ-1 would minimize potential for hazardous materials releases. Implementation of these measures would reduce indirect impacts to riparian habitat to a less than significant level. Overall, the construction-related impacts to riparian habitat and other sensitive natural communities would be **less than significant with mitigation.**

Mitigation Measure BIO-4: Develop and Implement a Restoration Plan for Blue Oak Woodland Habitat.

HWT, PG&E, and/or their contractor(s) shall develop and implement a Habitat Restoration Plan to mitigate any temporary and permanent impact on blue oak woodland habitat. For any temporary impact, all disturbed soils and new fill in this habitat shall be revegetated with site-appropriate native species. For any permanent impact, blue oak woodland habitat shall be mitigated at a ratio of 1.1:1 (replacement to impact). Blue oak trees and valley oak trees that are removed shall be mitigated at a ratio that shall be determined based on the dbh of the tree, as described further below.

Oak trees in construction work areas shall be safeguarded by implementing the conditions stated in the City of Paso Robles's Oak Tree Ordinance, Section 10.01.090. Prior to construction, oak trees that have a dbh of 6 inches or greater requiring removal shall be documented. A description of the species of oak, dbh, estimated height, and general health of the trees to be removed shall be recorded. Replacement ratios of removed oak trees shall, at a minimum, be equivalent to 25 percent of the diameter of the removed trees, as described in Section 10.01.050 (E) of the City's Oak Tree Ordinance.

Blue oak woodland restoration or compensation may be completed at the work area, in the vicinity, or at a conservation bank with a service area that covers the Proposed Project or selected alternative. Revegetated or restored areas shall be maintained and monitored to ensure a minimum of 65 percent survival of woody plantings after 5 years.

Operation and Maintenance

As described in Impact BIO-1, operation and maintenance activities would be limited to infrequent inspections of the Proposed Project components, and as-needed maintenance and repair activities. Because there are no riparian habitats near the proposed Estrella Substation

site, no direct impacts to these habitats would occur during operation and maintenance of the substation. The Proposed Project's 70 kV power line has been designed to avoid riparian habitats and only minimal impacts to this habitat could occur from vegetation trimming to maintain acceptable clearances per G.O. 95. Herbicides associated with vegetation management and/or equipment and vehicles used during operation and maintenance of the Proposed Project may release hazardous materials (e.g., fuels, lubricants, and solvents) that may travel off-site and indirectly impact riparian areas; however, implementation of APM HAZ-1 would minimize potential for impacts.

Operation and maintenance of the Proposed Project's 70 kV power line could affect blue oak woodland and potentially other sensitive natural communities in the vicinity. Specifically, impacts to these sensitive natural communities could result from tree trimming and/or vegetation removal activities required under G.O. 95. As applicable, an approximate 10-foot radius would be maintained around new power poles, dependent on location and equipment installed. As such, mature vegetation that grows within 10 horizontal feet of any conductor within the easement would be trimmed. Additional impacts from operation and maintenance within sensitive natural communities could result from overland access, work and staging in blue oak woodland, and drift of herbicides. Implementation of APM HAZ-1 would prevent the introduction of hazardous materials into natural communities, which could result in the loss or degradation of these communities, and would reduce these potential impacts to a less than significant level. Overall, operation-related impacts to riparian habitat and other sensitive natural communities would be **less than significant**.

Impact BIO-3: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means – *Less than Significant with Mitigation*

The proposed Estrella Substation site is currently in agricultural cultivation and there are no jurisdictional waters on the site. The closest potentially jurisdictional water (Dry Creek) is located approximately 1,400 feet northeast of the site.

The 70 kV power line would cross a number of drainage features, including Huer Huero Creek; however, the proposed 70 kV power line has been designed to avoid direct impacts to these features. In accordance with APM HYDRO-1, permanent structures, staging and work areas, and access roads would be sited/routed through uplands and outside of existing drainage features to the extent feasible. Prior to construction, sensitive aquatic features slated for avoidance would be identified in the field and clearly marked as required by APM HYDRO-1. Thus, at this time, it is not anticipated that the Proposed Project's 70 kV power line would directly impact State or federally protected wetlands, such as through direct removal or filling.

Indirect impacts to wetlands could potentially occur from construction activities due to erosion, sedimentation, fugitive dust, and accidental releases of hazardous materials. These impacts could be significant. As described in Impact BIO-1, however, these potential impacts would be avoided or minimized through implementation of applicable APMs (GEN-1, AIR-3, HAZ-1), as supplemented by **Mitigation Measure BIO-1**, and compliance with the Construction General Permit (i.e., implementation of the SWPPP). Potential indirect impacts to wetlands during operation and maintenance activities (e.g., herbicide drift from vegetation management

activities, accidental releases of hazardous materials) would similarly be reduced through implementation of APM HAZ-1. With implementation of these measures, substantial adverse impacts to State or federally protected wetlands would not occur during construction or operation. As a result, this impact would be **less than significant with mitigation**.

Impact BIO-4: 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 with Mitigation*

The Proposed Project substation would be constructed on land that is being used as a vineyard and does not function as a significant movement corridor for wildlife. As such, placement of the substation at its proposed location would not interfere substantially with the movement of native resident or migratory wildlife species. Dry Creek, located approximately 1,400 feet northeast of the Estrella Substation site, provides a migration route for wildlife; however, this creek would not be directly impacted or altered due to the Proposed Project. Likewise, no wildlife nursery sites exist on the substation site and thus substation construction would not impede the use of any nursery sites.

The Proposed Project's 70 kV power line route (including the reconductoring segment) would be 10 miles long and would traverse a variety of areas and habitats, including crossing several drainages (e.g., Huer Huero Creek). While these drainages may act as wildlife corridors, the 70 kV power line would not substantially interfere with wildlife movement. The power line would not include fencing or other obstructive facilities and the poles would be spaced hundreds of feet apart. Thus, upon completion of the power line construction, wildlife would not be inhibited by the power line structures. Construction activities for the 70 kV power line could temporarily affect wildlife movement due to the ground-disturbing activities (clearing, excavation, grading), pedestrian and vehicle traffic, and noise (which could frighten wildlife and cause them to avoid these areas). However, these effects would last only for the duration of construction activities, which would be limited in any one area because the power line would be constructed linearly.

No wildlife nursery sites were identified during surveys of the Proposed Project's 70 kV power line in 2016, subsequent surveys in 2019, and professional judgment exercised in the preparation of this document, but pre-construction surveys of the Proposed Project area per APM BIO-1 and **Mitigation Measure BIO-1** would ensure that no nursery sites have since been established. While the Salinas River, Huer Huero Creek, and other waterbodies in the vicinity could be used by native and migratory fish species (e.g., steelhead), these waterbodies would not be directly impacted by the Proposed Project and movement of fish and other wildlife within these waterbodies would not be affected. Operation and maintenance of the Proposed Project facilities would not include activities that could substantially interfere with wildlife movement or migration. Therefore, this impact would be **less than significant with mitigation**.

Impact BIO-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance – *Less than Significant with Mitigation*

The CPUC has exclusive jurisdiction over the siting and design of electric transmission projects in California. As such, projects under CPUC jurisdiction, including the Proposed Project, are exempt

from local regulations and permitting. Nevertheless, the Proposed Project would be consistent with the intent of local policies and ordinances protecting biological resources.

In accordance with the County of San Luis Obispo's General Plan, Open Space and Conservation Element (2010) goals to preserve and protect biological resources, Estrella Substation would be located in a vineyard, which contains limited habitat for most wildlife species, and is away from wetlands, water features and riparian areas. Likewise, the Proposed Project's 70 kV power line would largely avoid or minimize impacts to sensitive biological resources, and has been designed to avoid wetlands, other waters and riparian areas. However, constructing 70 kV power line would require removal of approximately three oak trees and would result in permanent impacts to 0.13 acre of blue oak woodland habitat. Implementation of **Mitigation Measure BIO-4** would require replacement of permanently impacted blue oak woodland habitat and removed trees, which would be consistent with the City of Paso Robles's Oak Tree Ordinance. Additionally, the APMs, supplemented by Mitigation Measure BIO-1, would incorporate all of the County of San Luis Obispo's standard kit fox mitigation measures (see text of Mitigation Measure BIO-1 and description of the measures in Appendix A).

Operation and maintenance of Estrella Substation would primarily occur within the substation footprint and along access roads and would not substantially conflict with local policies or ordinances protecting biological resources. Operation and maintenance of the 70 kV power line may require occasional tree trimming, should surrounding vegetation interfere with the power line and/or create a safety hazard. Temporary or permanent impacts to oak trees may occur to maintain minimum clearances and to prevent dead, rotten, or diseased portions of otherwise healthy trees from falling onto the power line. However, the City of Paso Robles's Oak Tree Ordinance allows tree trimming by public utilities under the jurisdiction of the CPUC, as necessary, to maintain a safe operation for facilities. Therefore, these activities would not conflict with local ordinances or policies protecting biological resources. Overall, this impact would be **less than significant with mitigation.**

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

The reasonably foreseeable distribution components and ultimate buildout of the Estrella Substation would have reduced potential to substantially adversely affect biological resources, as compared to the Proposed Project components. In general, construction for the reasonably foreseeable distribution components and infrastructure projected for ultimate substation buildout would be minor in scale compared to the Proposed Project. The reasonably foreseeable distribution line segments would be installed along an existing unpaved road through agricultural fields and along existing roadways where there is low potential for suitable habitat. Likewise, components proposed as part of ultimate buildout of the Estrella Substation would be primarily located within the already-constructed substation site or immediately adjacent (additional 230 kV interconnection). Note that the routes of any additional distribution feeders and/or 70 kV power lines that could be established through ultimate substation buildout are not known, and thus any impacts associated with these facilities are speculative and not evaluated in this DEIR. Given the above, the potential for impacts to sensitive vegetative communities and special-status plant and wildlife species is generally much lower than that of the Proposed Project. Nevertheless, if species are determined present within temporary and/or permanent work areas, similar direct and indirect adverse impacts to biological resources may occur.

Implementation of applicable APMs (BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, GEN-1, and AES-2) and **Mitigation Measure BIO-1** would avoid or minimize potential impacts to special-status species during construction of the reasonably foreseeable distribution and ultimate substation buildout components. Although special-status plants are not likely to be encountered, if such species are discovered within the proposed work area and cannot be avoided impacts would be significant. Implementation of **Mitigation Measure BIO-2** would compensate for these adverse impacts. Potential indirect effects on habitat and species during construction (e.g., erosion and sedimentation, fugitive dust, release of hazardous materials) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3.

Because the reasonably foreseeable distribution components may not disturb greater than one acre of land and, therefore, may not be subject to the Construction General Permit, **Mitigation Measure HYD/WQ-1** would be implemented to require construction best management practices for erosion control. This mitigation measure would minimize potential off-site discharges that could adversely affect habitat or species; therefore, such indirect effects would be **less than significant with mitigation**.

Like the Proposed Project, the reasonably foreseeable distribution components and ultimate substation buildout facilities would be operated remotely and no staff would be present on-site. Inspections of the facilities would occur periodically and maintenance and repairs would be conducted on an as-needed basis. Based on the reasonably foreseeable distribution line segments routes through agricultural fields and within road right-of-ways, substantial vegetation trimming would not be needed to maintain clearances and these activities would not affect special-status plants or other species. Similar to the Proposed Project's transmission and power line components, the 21 kV distribution line segments would have potential to adversely impact raptors, such as golden eagle and other special-status bird species (e.g., electrocution), which would constitute a significant impact. To avoid or minimize these effects, **Mitigation Measure BIO-3** would be implemented, which would require that the distribution line operational construction activities avoid the nesting season to the extent feasible; that additional precautions are implemented if an active nest is found; the Applicants coordinate with state and federal wildlife agencies; and that APLIC guidelines for avian protection are followed. Other operation and maintenance activities would not be expected to substantially affect special-status invertebrates, amphibians, reptiles, or mammals. Overall, impacts under significance criterion A would be **less than significant with mitigation**.

The reasonably foreseeable distribution components and proposed infrastructure for ultimate substation buildout would not directly impact riparian habitat or other sensitive natural communities. As discussed in Section 4.4.3, the reasonably foreseeable distribution components would be installed within agricultural areas and along existing roads and highways. Although the northern reasonably foreseeable distribution line segment would cross Dry Creek, the distribution line would be installed within the median of SR 46 (which crosses over Dry Creek via a bridge/culvert) and would not directly impact these waters or adjacent habitat. The reasonably foreseeable distribution components would not impact blue oak woodland or any other sensitive natural communities, as determined by City of Paso Robles and CDFW. Similarly, the reasonably foreseeable distribution components would not directly impact State or federally protected wetlands. Indirect effects to riparian habitat, sensitive natural communities, and wetlands in the area (e.g., discharge of sediment and pollutants, fugitive dust) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3; **Mitigation**

Measure BIO-1; and **Mitigation Measure HYD/WQ-1**. As mentioned above, components anticipated as part of ultimate buildout of the Estrella Substation would be primarily located within the already-constructed substation site and, therefore, would not be expected to impact riparian habitat, other natural communities, and/or State and federally protected wetlands. With implementation of these measures, impacts under significance criteria B and C would be **less than significant with mitigation**.

The area in which the reasonably foreseeable distribution components and ultimate substation buildout facilities would be installed (largely agricultural in nature or the already-built substation site) would not be anticipated to serve as a migration corridor for wildlife, although it is possible that wildlife species could move through the area. As such, construction activities may temporarily impede wildlife movement due to the ground disturbance, pedestrian and vehicle traffic, and noise (which could frighten wildlife and cause them to avoid these areas). However, these effects would be temporary and would only last for the duration of construction (approximately 19 weeks for the reasonably foreseeably distribution components). Once constructed, the distribution components would not impede wildlife movement, as the distribution poles would be spaced many feet apart and no fencing or other obstructive facilities would be installed. With respect to ultimate substation buildout, installation of additional transmission and distribution transformers and associated equipment within the 70 kV and 230 kV substations is assumed to result in relatively minimal additional permanent ground disturbance (from installation of the additional 230 kV interconnection in agricultural lands adjacent to the substation) and would not substantially increase the height of the substation. Pre-construction surveys under APM BIO-1 and **Mitigation Measure BIO-1** would ensure that wildlife nursery sites are not present on the construction site that could be adversely impacted. Overall, impacts under significance criterion D would be **less than significant with mitigation**.

The siting of the reasonably foreseeable distribution components and ultimate substation buildout components through agricultural areas and along existing roads would be consistent with local policies protecting biological resources, such as those in the County of San Luis Obispo and City of Paso Robles General Plans. As discussed under Impact BIO-5, the APMs and **Mitigation Measure BIO-1** included for the Proposed Project (which would also be implemented for the distribution components) are consistent with the County's standard kit fox mitigation measures. Additionally, the reasonably foreseeable distribution components would not require removal of any oak trees. Thus, the reasonably foreseeable distribution components and ultimate substation buildout would not conflict with local policies or ordinances protecting biological resources. As a result, impacts under significance criterion E would be **less than significant with mitigation.**

Alternatives

No Project Alternative

Under the No Project Alternative, no new substation or 70 kV power line would be constructed or operated. Thus, there would be no potential for adverse impacts to biological resources and there would be no changes to the existing baseline conditions. Therefore, **no impact** would occur for any of the significance criteria related to biological resources.

Alternative SS-1: Bonel Ranch Substation Site

Construction and operation of Alternative SS-1 would be similar to the proposed Estrella Substation. Thus, if species are determined to be present, similar direct and indirect adverse impacts to natural vegetation communities and special-status species may occur at the Bonel Ranch Substation Site. Similar to the Estrella Substation, the Bonel Ranch site is currently in agricultural production; however, the site is located relatively close (approximately 350 feet) to the Estrella River. Thus, there would be elevated potential for special-status species that frequent riparian habitat or that may use the Estrella River corridor for movement across the region to occur in the area of the Alternative SS-1 site.

Implementation of applicable APMs (BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, GEN-1, and AES-2) and **Mitigation Measure BIO-1** would avoid or minimize potential impacts to special-status species during construction of Alternative SS-1, through similar avoidance and minimization methods discussed for the Proposed Project above. If special-status plant species are discovered within the proposed work area and cannot be avoided, implementation of **Mitigation Measure BIO-2** would compensate for these adverse impacts. Potential indirect effects on habitat and species during construction (e.g., erosion and sedimentation, fugitive dust, release of hazardous materials) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3 and Mitigation Measure BIO-1. Like the Proposed Project, Alternative SS-1 would require implementation of a SWPPP in accordance with the Construction General Permit, which would minimize potential indirect effects on species and habitat from construction-related pollutant discharges. Implementation of these measures would minimize potential direct and indirect effects on special-status species during construction to a level that is less than significant.

Like the Estrella Substation, the substation under Alternative SS-1 would be operated remotely and no staff would be present on-site. Inspections of the facilities would occur periodically and maintenance and repairs would be conducted on an as-needed basis. While the operation and maintenance activities at the substation would not be anticipated to impact special-status species, the 230 kV interconnection would have potential to impact special-status birds (e.g., via electrocution or collision) if not designed properly, which would be a significant impact. To avoid or minimize these effects, **Mitigation Measure BIO-3** would be implemented, which would require that the 230 kV interconnection follow APLIC guidelines for avian protection. Implementation of this mitigation measure would reduce effects on special-status species during operation to a level that is less than significant. Overall, impacts under significance criterion A would be **less than significant with mitigation**.

Construction of the substation and 230 kV interconnection under Alternative SS-1 would not directly impact riparian habitat, as the substation and 230 kV interconnection would avoid the Estrella River riparian corridor. However, the alternative would require removal or trimming of up to approximately three oak trees. The substation site consists of ruderal and nonnative grassland communities, as the oak trees are too sparse to be considered blue oak woodland habitat. Alternative SS-1 would not affect central coastal scrub, Central Coast cottonwood-willow riparian forest, coastal and valley freshwater marsh, and sandy wash vegetation communities. As a result, impacts under significance criterion B would be **less than significant.**

No State or federally protected wetlands are located on the Alternative SS-1 site; therefore, no direct impacts (e.g., direct removal or filling) to such resources would occur. Indirect effects to wetlands present along and within the Estrella River channel (see Figure 4.4-1) (e.g., discharge

of sediment and pollutants, fugitive dust) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3; **Mitigation Measure BIO-1**; and compliance with the Construction General Permit. With implementation of these measures, impacts under significance criterion C would be **less than significant with mitigation**.

The Estrella River, which passes approximately 350 feet east of the Alternative SS-1 site, could be used as a movement corridor by native resident or migratory fish and wildlife species, including special-status species. While Alternative SS-1 would not directly affect the river or preclude movement of species along this route, construction activities may temporarily impede wildlife movement over short segments actively undergoing construction due to the ground disturbance, pedestrian and vehicle traffic, and noise (which could frighten wildlife and cause them to avoid these areas). As described in Impact BIO-4, these effects would be temporary, limited in scale, and would only last for the duration of active construction (total construction would be approximately 7 months). Once constructed, the substation would not substantially impede wildlife movement and the Estrella River corridor would remain largely unaffected. Pre-construction surveys under APM BIO-1 and **Mitigation Measure BIO-1** would ensure that wildlife nursery sites are not present on the construction site that could be adversely impacted. As a result, impacts under significance criterion D would be **less than significant with mitigation**.

As with the Proposed Project, the siting and design of Alternative SS-1 would be exempt from local regulations and permitting. Nevertheless, the alternative would be consistent with local policies and ordinances protecting biological resources. Specifically, by locating the substation outside of sensitive habitat areas, the alternative furthers the goals and policies in the County's General Plan to avoid or minimize impacts on biological resources. As discussed in Impact BIO-5, the APMs that would be implemented for Alternative SS-1, as supplemented by **Mitigation Measure BIO-1,** would include all of the County of San Luis Obispo's standard kit fox mitigation measures. Because the Bonel Ranch site is located outside of the City of Paso Robles, the City's Oak Tree Ordinance would not apply, and the isolated impacts to oak trees would be less than significant. As such, impacts under significance criterion E would be **less than significant with mitigation.**

Alternative PLR-1A: Estrella Route to Estella Substation

Construction and operation activities required for Alternative PLR-1A would be similar to those described for the Proposed Project's 70 kV power line. As such, Alternative PLR-1A could result in similar adverse effects on biological resources from construction and operation activities. Relative to the Proposed Project 70 kV power line, Alternative PLR-1A passes primarily through lower density areas that consist of rural residential developments and agricultural areas dominated by vineyards; however, the route does pass through several isolated areas of blue oak woodland (PG&E 2017). No known golden eagle nests are present along the Alternative PLR-1A route, and the alternative would avoid the two nests identified along the Proposed Project 70 kV route (see Figure 4.4-5).

Implementation of applicable APMs (BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, GEN-1, and AES-2) and **Mitigation Measure BIO-1** would avoid or minimize potential impacts to special-status species during construction of Alternative PLR-1A. If special-status plant species are discovered during pre-construction surveys and cannot be avoided, implementation of **Mitigation Measure BIO-2** would compensate for these adverse impacts. Potential indirect effects on habitat and species

during construction (e.g., erosion and sedimentation, fugitive dust, release of hazardous materials) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3 and Mitigation Measure BIO-1. Like the Proposed Project, construction of Alternative PLR-1A would require implementation of a SWPPP in accordance with the Construction General Permit, which would minimize potential off-site discharges that could adversely affect habitat or species.

Like the Proposed Project's 70 kV power line, Alternative PLR-1A would be operated remotely and no staff would be present on-site. Inspections of the facilities would occur periodically and maintenance and repairs would be conducted on an as-needed basis. Some vegetation trimming would be required to maintain acceptable clearances per G.O. 95, but these activities would not be expected to substantially affect special-status plants or species. As described in Impact BIO-1, the 70 kV power line under Alternative PLR-1A would have potential to adversely impact raptors, such as golden eagle and other special-status bird species (e.g., electrocution), which would constitute a significant impact. To avoid or minimize these effects, **Mitigation Measure BIO-3** would be implemented, which would require that the power line follow APLIC guidelines for avian protection. Other operation and maintenance activities would not be expected to substantially affect special-status invertebrates, amphibians, reptiles, or mammals. Overall, impacts under significance criterion A would be **less than significant with mitigation**.

The Alternative PLR-1A route would cross several major surface water bodies (i.e., Dry Creek, Huer Huero Creek), as well as several unnamed drainages. As noted above, the route also would pass through several isolated areas of blue oak woodland (PG&E 2017), which is considered a sensitive natural community by the City of Paso Robles and CDFW. Alternative PLR-1A could permanently impact 0.05 acre of blue oak woodland habitat. Construction activities could temporarily impact 5.15 acres of this sensitive natural community. These impacts would be considered significant. To mitigate the impacts to blue oak woodland, **Mitigation Measure BIO-4** would be implemented, which would require development and implementation of a blue oak woodland habitat restoration plan. This would include replacement of any removed trees and would reduce impacts on blue oak woodland from Alternative PLR-1A to a level that is less than significant. As a result, impacts under significance criterion B would be **less than significant with mitigation**.

As described above, the Alternative PLR-1A route would cross several drainage features that could be subject to State or federal jurisdiction (including Dry Creek and Huer Huero Creek) (see Figure 4.4-1). Alternative PLR-1A would also pass near or over several isolated pond and wetland features that could be protected under State or federal laws. However, the alternative would be designed to avoid direct impacts to wetlands in accordance with APM HYDRO-1. At this time, there is no reason to believe that State or federally protected wetlands or waters would be directly impacted by Alternative PLR-1A; however, if it were to become necessary to site a pole or work area within a wetland or waters, the Applicants would be required to obtain authorization from regulatory agencies and provide mitigation. Indirect effects to wetlands present along and within the drainages in the Alternative PLR-1A area (e.g., discharge of sediment and pollutants, fugitive dust) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3; **Mitigation Measure BIO-1**; and compliance with the Construction General Permit (SWPPP). With implementation of these measures, impacts under significance criterion C would be **less than significant with mitigation**.

Much of the length of the 70 kV power line route under Alternative PLR-1A would pass through agricultural areas that would not be anticipated to serve as a migration corridor for wildlife; however, as noted above, Alternative PLR-1A would cross several important drainages (e.g., Dry Creek, Huer Huero Creek) and would also parallel Salinas River, which could be used as a movement corridor by native resident or migratory fish and wildlife species. Construction activities may temporarily impede wildlife movement in these areas due to the ground disturbance, pedestrian and vehicle traffic, and noise (which could frighten wildlife and cause them to avoid these areas). However, these effects would be temporary, limited to short segments, and would only last for the duration of active localized construction (total overall construction would be approximately 34 months). Once constructed, the 70 kV power line would not impede wildlife movement, as the poles would be spaced many feet apart and no fencing or other obstructive facilities would be installed. Pre-construction surveys under APM BIO-1 and **Mitigation Measure BIO-1** would ensure that wildlife nursery sites are not present on the construction site that could be adversely impacted. Overall, impacts under significance criterion D would be **less than significant with mitigation**.

As with the Proposed Project, the siting and design of Alternative PLR-1A would be exempt from local regulations and permitting. Nevertheless, the alternative would be consistent with local policies and ordinances protecting biological resources. By locating Alternative PLR-1A largely outside of sensitive habitat areas, the alternative would further the goals and policies in the County's and City's General Plans to avoid or minimize impacts on biological resources. As discussed in Impact BIO-5, the APMs that would be implemented for Alternative PLR-1A, as supplemented by **Mitigation Measure BIO-1,** would include all of the County of San Luis Obispo's standard kit fox mitigation measures. Alternative PLR-1A may require removal of some oak trees and would result in permanent and temporary impacts to blue oak woodland, as described above; however, impacts to oak trees would be mitigated through **Mitigation Measure BIO-4**, which would be consistent with the City of Paso Robles's Oak Tree Ordinance. As a result, impacts under significance criterion E would be **less than significant with mitigation**.

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Much of the Alternative PLR-1C route is identical to Alternative PLR-1A route; as such, this alternative would have similar potential to impact biological resources as that described for Alternative PLR-1A. One important difference is that in starting at the Bonel Ranch Substation Site (Alternative SS-1), Alternative PLR-1C would parallel the Estrella River at the outset, where there would be increased potential for special-status species to be present, including nesting birds, which may use the Estrella River corridor. In particular Alternative PLR-1C, MRV 1 would follow Estrella Road, which parallels Estrella River, for approximately 4.5 miles. Like Alternative PLR-1A, the Alternative PLR-1C route would pass through primarily agricultural areas, as well as some isolated areas of blue oak woodland (PG&E 2017). No known golden eagle nests occur along the Alternative PLR-1C alignment and the alternative would avoid the nests identified near the Proposed Project 70 kV power line route (see Figure 4.4-5).

Implementation of applicable APMs (BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, GEN-1, and AES-2) and **Mitigation Measure BIO-1** would avoid or minimize potential impacts to special-status species during construction of Alternative PLR-1C. If special-status plant species are discovered during pre-construction surveys and cannot be avoided, implementation of **Mitigation Measure BIO-2** would compensate for these adverse impacts. Potential indirect effects on habitat and species during construction (e.g., erosion and sedimentation, fugitive dust, release of hazardous

materials) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3 and Mitigation Measure BIO-1. Like the Proposed Project, construction of Alternative PLR-1C would also require implementation of a SWPPP in accordance with the Construction General Permit, which would minimize potential off-site discharges that could adversely affect habitat or species.

Like the Proposed Project's 70 kV power line, Alternative PLR-1C would be operated remotely and no staff would be present on-site. Inspections of the facilities would occur periodically and maintenance and repairs would be conducted on an as-needed basis. Some vegetation trimming would be required to maintain acceptable clearances per G.O. 95, but these activities would not be expected to substantially affect special-status plants or species. As described in Impact BIO-1, the 70 kV power line under Alternative PLR-1C would have potential to adversely impact raptors, such as golden eagle and other special-status bird species (e.g., electrocution), which would constitute a significant impact. To avoid or minimize these effects, **Mitigation Measure BIO-3** would be implemented, which would require that the power line follow APLIC guidelines for avian protection. Other operation and maintenance activities would not be expected to substantially affect special-status invertebrates, amphibians, reptiles, or mammals. Overall, impacts under significance criterion A would be **less than significant with mitigation**.

The Alternative PLR-1C route would parallel Estrella River for a portion of its length and would cross Huer Huero Creek, as well as several unnamed drainages. As noted above, the route also would pass through several isolated areas of blue oak woodland (PG&E 2017), which is considered a sensitive natural community by the City of Paso Robles and CDFW. Alternative PLR-1C could permanently impact 0.19 acre of blue oak woodland habitat. Construction activities could temporarily impact 3.40 acres of this sensitive natural community. These impacts would be considered significant. To mitigate the impacts to blue oak woodland, **Mitigation Measure BIO-4** would be implemented, which would require development and implementation of a blue oak woodland habitat restoration plan. This would include replacement of any removed trees and would reduce impacts on blue oak woodland from Alternative PLR-1C to a level that is less than significant. As a result, impacts under significance criterion B would be **less than significant with mitigation**.

As described above, the Alternative PLR-1C route would cross several drainage features that could be subject to State or federal jurisdiction (including Huer Huero Creek) (see Figure 4.4-1). Alternative PLR-1C would also pass near or over several isolated pond and wetland features that could be protected under State or federal laws. However, the alternative would be designed to avoid direct impacts to wetlands in accordance with APM HYDRO-1. At this time, there is no reason to believe that State or federally protected wetlands would be directly impacted by Alternative PLR-1C; however, if it were to become necessary to site a pole or work area within a wetland or waters, the Applicants would be required to obtain authorization from regulatory agencies and provide mitigation. Indirect effects to wetlands present along and within the drainages in the Alternative PLR-1C area (e.g., discharge of sediment and pollutants, fugitive dust) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3; **Mitigation Measure BIO-1**; and compliance with the Construction General Permit (SWPPP). With implementation of these measures, impacts under significance criterion C would be **less than significant with mitigation**.

Much of the length of the 70 kV power line route under Alternative PLR-1C would pass through agricultural areas that would not be anticipated to serve as a migration corridor for wildlife; however, as noted above, Alternative PLR-1C would cross Huer Huero Creek and other drainages and would also parallel Estrella River and Salinas River, which could be used as a movement corridors by native resident or migratory fish and wildlife species. Construction activities may temporarily impede wildlife movement in limited portions of these areas while actively under construction due to the ground disturbance, pedestrian and vehicle traffic, and noise (which could frighten wildlife and cause them to avoid these areas). However, these effects would be temporary, affect limited portions of the route, and would only last for the duration of active construction (total construction duration of the overall route is approximately 33 months). Once constructed, the 70 kV power line would not impede wildlife movement, as the poles would be spaced many feet apart and no fencing or other obstructive facilities would be installed. Pre-construction surveys under APM BIO-1 and **Mitigation Measure BIO-1** would ensure that wildlife nursery sites are not present on the construction site that could be adversely impacted. Overall, impacts under significance criterion D would be **less than significant with mitigation**.

As with the Proposed Project, the siting and design of Alternative PLR-1C would be exempt from local regulations and permitting. Nevertheless, the alternative would be consistent with local policies and ordinances protecting biological resources. By locating Alternative PLR-1C largely outside of sensitive habitat areas, the alternative would further the goals and policies in the County's and City's General Plans to avoid or minimize impacts on biological resources. As discussed in Impact BIO-5, the APMs that would be implemented for Alternative PLR-1C, as supplemented by **Mitigation Measure BIO-1,** would include all of the County of San Luis Obispo's standard kit fox mitigation measures. Alternative PLR-1C may require removal of some oak trees and would result in permanent and temporary impacts to blue oak woodland, as described above; however, impacts to oak trees would be mitigated through **Mitigation Measure BIO-4**, which would be consistent with the City of Paso Robles's Oak Tree Ordinance. As a result, impacts under significance criterion E would be **less than significant with mitigation**.

Alternative PLR-3: Strategic Undergrounding (Option 1 & 2)

Alternative PLR-3 would underground the portion of the Proposed Project's 70 kV power line that passes through the Golden Hill Industrial Park area and north along Golden Hill Road. While Alternative PLR-3B (Option 2) would follow the Proposed Project's 70 kV overhead power line route precisely, Alternative PLR-3A (Option 1) would divert slightly onto Wisteria Lane and then north on Golden Hill Road (see Figure 3-8 in Chapter 3, *Alternatives Description*). As such, the biological resources and habitat in this area are largely the same as that described for the Proposed Project 70 kV power line. Vegetation communities in this area include primarily nonnative grassland, as well as blue oak woodland along the northern portion of Alternative PLR-3 route (NEET West and PG&E 2017). Alternative PLR-3 does pass relatively close (500 to 1,700 feet) to Huer Huero Creek, including near the location of a known eagle nest (see Figure 4.4-5). In general, while construction of Alternative PLR-3 would include more excavation/ground disturbance (and associated potential impacts to biological resources) compared to the same segment of the Proposed Project's overhead 70 kV power line, the underground line once constructed would pose less of a hazard to special-status birds, as discussed further below.

Implementation of applicable APMs (BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, GEN-1, and AES-2) and **Mitigation Measure BIO-1** would avoid or minimize potential impacts to special-status species

during construction of Alternative PLR-3. If special-status plant species are discovered during pre-construction surveys and cannot be avoided, implementation of **Mitigation Measure BIO-2** would compensate for these adverse impacts. Of particular importance for Alternative PLR-3, which would involve substantial trenching and excavation for installation of the underground line, APM BIO-4 and Mitigation Measure BIO-1 would require that trenches and excavations are fitted with escape ramps or covered at the end of the day to avoid entrapment of special-status species. Potential indirect effects on habitat and species during construction (e.g., erosion and sedimentation, fugitive dust, release of hazardous materials) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3 and Mitigation Measure BIO-1. Alternative PLR-3 would be constructed along with the remainder of the Proposed Project and would require implementation of a SWPPP in accordance with the Construction General Permit, which would minimize potential off-site discharges that could adversely affect habitat or species.

Like the Proposed Project's overhead 70 kV power line, Alternative PLR-3 would be operated remotely and no staff would be present on-site. Inspections of the facilities would occur periodically and maintenance and repairs would be conducted on an as-needed basis. Some vegetation trimming would be required to maintain acceptable clearances from overhead components (e.g., transition stations) per G.O. 95, but these activities would not be expected to substantially affect special-status plants or species. The undergrounded power line under Alternative PLR-3 would have no potential to cause substantial adverse effects (e.g., electrocution, collision) to special-status birds; however, the transition stations and riser poles at each end of the underground line would include above-ground electrified components that could pose an electrocution hazard to birds, which would be a significant impact. To avoid or minimize these effects, **Mitigation Measure BIO-3** would be implemented, which would require that the above-ground power line components follow APLIC guidelines for avian protection. Other operation and maintenance activities would not be expected to substantially affect special-status invertebrates, amphibians, reptiles, or mammals. Overall, impacts under significance criterion A would be **less than significant with mitigation**.

As noted above, the Alternative PLR-3 route would pass fairly close to Huer Huero Creek, but it would not cross or directly impact this waterbody or associated riparian habitat. Based on current alternative design and vegetation mapping, Alternative PLR-3 would permanently impact 0.52 acre and temporarily impact 3.44 to 3.51 acres of blue oak woodland habitat, which is a sensitive natural community. These impacts would be considered significant. To mitigate the impacts to blue oak woodland, **Mitigation Measure BIO-4** would be implemented, which would require development and implementation of a blue oak woodland habitat restoration plan. This would include replacement of any removed trees and would reduce impacts on blue oak woodland from Alternative PLR-3 to a level that is less than significant. As a result, impacts under significance criterion B would be **less than significant with mitigation**.

Alternative PLR-3 would not directly impact Huer Huero Creek. While the Alternative PLR-3 components would be installed primarily within the existing roadway, it is possible for construction of Alternative PLR-3 to temporarily or permanently impact two manmade drainage features in the area of Golden Hill Road. As described in further detail in Section 4.10, "Hydrology and Water Quality," these include a rip-rapped swale along the eastern side of Golden Hill Road that receives runoff from the Cava Robles RV Resort and a stormwater detention basin east of Golden Hill Road and south of the Cava Robles RV Resort driveway.

These features do not show connectivity to larger, named waterbodies, and thus would most likely not be considered waters of the U.S. or State. Per APM HYDRO-1, the alternative would be designed to avoid direct impacts to wetlands and waters to the extent feasible. Should the Alternative PLR-3 activities affect these drainage features and the features are determined to be jurisdictional, the Applicants would be required to obtain authorization from regulatory agencies and provide mitigation. Indirect effects to wetlands present along and within the drainages in the Alternative PLR-3 vicinity (e.g., discharge of sediment and pollutants, fugitive dust) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3; **Mitigation Measure BIO-1**; and compliance with the Construction General Permit. With implementation of these measures, impacts under significance criterion C would be **less than significant with mitigation**.

While the underground 70 kV power line under Alternative PLR-3 would largely be installed within existing roadways, it would be located near Huer Huero Creek, which may be used as a movement corridor by native resident or migratory fish and wildlife species. Additionally, wildlife species could pass through the blue oak woodland and nonnative grassland habitats that occur along the alignments (i.e., Option 1 and 2), particularly the northern portions. Construction activities may temporarily impede wildlife movement in these areas due to the ground disturbance, pedestrian and vehicle traffic, and noise (which could frighten wildlife and cause them to avoid these areas). However, these effects would be temporary, limited to areas undergoing active construction, and would only last for the duration of active construction (total construction approximately 12 months). Once constructed, the underground 70 kV power line would not impede wildlife movement. Pre-construction surveys under APM BIO-1 and **Mitigation Measure BIO-1** would ensure that wildlife nursery sites are not present on the construction site that could be adversely impacted. Overall, impacts under significance criterion D would be **less than significant with mitigation**.

As with the Proposed Project, the siting and design of Alternative PLR-3 would be exempt from local regulations and permitting. Nevertheless, the alternative would be consistent with local policies and ordinances protecting biological resources. By undergrounding the 70 kV power line, the alternative would avoid or minimize impacts on special-status bird species (e.g., golden eagle), which would further the goals and policies in the County's and City's General Plans to avoid or minimize impacts on biological resources. As discussed in Impact BIO-5, the APMs that would be implemented for Alternative PLR-3, as supplemented by **Mitigation Measure BIO-1,** would include all of the County of San Luis Obispo's standard kit fox mitigation measures. Alternative PLR-3 may require removal of some oak trees and would result in permanent and temporary impacts to blue oak woodland, as described above; however, impacts to oak trees would be mitigated through **Mitigation Measure BIO-4**, which would be consistent with the City of Paso Robles's Oak Tree Ordinance. As a result, impacts under significance criterion E would be **less than significant with mitigation**.

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

Construction and operation of Alternative SE-1A would be similar to the proposed Estrella Substation. Thus, Alternative SE-1A could result in similar direct and indirect adverse impacts to biological resources as described for the Estrella Substation. The Templeton Substation Expansion Site is currently undeveloped and supports nonnative grassland, and there are no waters or wetlands on the site (although there are two potentially jurisdictional drainage features in the area [south of the Templeton Substation] that drain to the Salinas River) (HWT

2019). Additionally, there is blue oak woodland habitat to the south of the site and a road-killed American badger was found along El Pomar Drive in the area of Templeton Substation (HWT 2019).

Implementation of applicable APMs (BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, GEN-1, and AES-2) and **Mitigation Measure BIO-1** would avoid or minimize potential impacts to special-status species during construction of Alternative SE-1A. If special-status plant species are discovered within the proposed work area and cannot be avoided, implementation of **Mitigation Measure BIO-2** would compensate for these adverse impacts. Potential indirect effects on habitat and species during construction (e.g., erosion and sedimentation, fugitive dust, release of hazardous materials) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3 and Mitigation Measure BIO-1. Like the Proposed Project, Alternative SE-1A also would require implementation of a SWPPP in accordance with the Construction General Permit, which would minimize potential indirect effects on species and habitat from construction-related pollutant discharges. Implementation of these measures would minimize potential direct and indirect effects on special-status species during construction to a level that is less than significant.

Like the Estrella Substation, the substation under Alternative SE-1A would be operated remotely and no staff would be present on-site. Inspections of the facilities would occur periodically and maintenance and repairs would be conducted on an as-needed basis. While the operation and maintenance activities at the substation would not be anticipated to impact special-status species, the 230 kV interconnection would have potential to impact special-status birds (e.g., via electrocution or collision) if not designed properly, which would be a significant impact. To avoid or minimize these effects, **Mitigation Measure BIO-3** would be implemented, which would require that the 230 kV interconnection follow APLIC guidelines for avian protection. Implementation of this mitigation measure would reduce effects on special-status species during operation to a level that is less than significant. Overall, impacts under significance criterion A would be **less than significant with mitigation**.

The substation under Alternative SE-1A would not directly impact riparian habitat or the drainage features to the south of the site. While the alternative site is characterized as nonnative grassland, there are several oak trees on the site that would require removal for construction of Alternative SE-1A. Alternative SE-1A would not directly affect any of the vegetation communities considered sensitive by CDFW (i.e., blue oak woodland, central coastal scrub, Central Coast cottonwood-willow riparian forest, coastal and valley freshwater marsh, and sandy wash). Because the individual oak trees on the site would not be part of a larger sensitive natural community, these impacts would not be significant and would not require mitigation. As a result, impacts under significance criterion B would be **less than significant.**

As noted above, no State or federally protected wetlands or waters are located within the Alternative SE-1A site footprint, although there are two drainage features to the south of the site (HWT 2019); therefore, no direct impacts (e.g., direct removal or filling) to such resources would occur. Indirect effects (e.g., discharge of sediment and pollutants, fugitive dust) to the drainage features, which ultimately drain to Salinas River, would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3; **Mitigation Measure BIO-1**; and compliance with the Construction General Permit (SWPPP). With implementation of these measures, impacts under significance criterion C would be **less than significant with mitigation**.

The drainage features in the Alternative SE-1A site vicinity could be used as movement corridors by native resident or migratory fish and wildlife species, including special-status species. While Alternative SE-1A would not directly affect the drainage features or preclude movement of species along this route, construction activities may temporarily impede wildlife movement due to the ground disturbance, pedestrian and vehicle traffic, and noise (which could frighten wildlife and cause them to avoid these areas). As described in Impact BIO-4, these effects would be temporary and would only last over limited segments for the duration of active construction (approximately 7 months). Once constructed, the substation would not substantially impede wildlife movement and would not represent a substantial change to existing conditions considering the presence of the existing Templeton Substation. Pre-construction surveys under APM BIO-1 and **Mitigation Measure BIO-1** would ensure that wildlife nursery sites are not present on the construction site that could be adversely impacted. As a result, impacts under significance criterion D would be **less than significant with mitigation**.

As with the Proposed Project, the siting and design of Alternative SE-1A would be exempt from local regulations and permitting. Nevertheless, the alternative would be consistent with local policies and ordinances protecting biological resources. Specifically, by locating the substation outside of sensitive habitat areas and adjacent to an existing substation, the alternative would further the goals and policies in the County's General Plan to avoid or minimize impacts on biological resources. As discussed in Impact BIO-5, the APMs that would be implemented for Alternative SE-1A, as supplemented by **Mitigation Measure BIO-1,** would include all of the County of San Luis Obispo's standard kit fox mitigation measures. Because the Templeton Substation Expansion Site is located outside of the City of Paso Robles, the City's Oak Tree Ordinance would not apply, and the impacts to isolated oak trees on the site would be less than significant. As such, impacts under significance criterion E would be **less than significant with mitigation.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Alternative SE-PLR-2 would involve similar construction processes as the Proposed Project 70 kV power line and thus would have similar potential for adverse impacts to biological resources. The new 70 kV power line under Alternative SE-PLR-2 would be shorter (4.8 miles shorter) than the Proposed Project's 70 kV power line alignment, and the reconductoring segment would not be needed. As such, the construction schedule for Alternative SE-PLR-2 would be 9 months shorter than that for the Proposed Project's 70 kV power line. The Alternative SE-PLR-2 route would traverse agricultural areas and nonnative grassland (particularly the southern portions of the route near Templeton Substation), as well areas of blue oak woodland that line South River Road (PG&E 2019). Alternative SE-PLR-2 also would parallel and cross Spanish Camp Creek, as well as a seasonal wetland/potential vernal pool near the intersection of South River Road and Lothar Lane (PG&E 2019). Additionally, three golden eagle nests that were actively used in 2019 and prior years are located near Santa Ysabel Lake, approximately 0.25-mile from the Alternative SE-PLR-2 route.

Implementation of applicable APMs (BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, GEN-1, and AES-2) and **Mitigation Measure BIO-1** would avoid or minimize potential impacts to special-status species during construction of Alternative SE-PLR-2. If special-status plant species are discovered during pre-construction surveys and cannot be avoided, implementation of **Mitigation Measure BIO-2** would compensate for these adverse impacts. Potential indirect effects on habitat and species during construction (e.g., erosion and sedimentation, fugitive dust, release of hazardous

materials) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3 and Mitigation Measure BIO-1. Like the Proposed Project, construction of Alternative SE-PLR-2 also would require implementation of a SWPPP in accordance with the Construction General Permit, which would minimize potential off-site discharges that could adversely affect habitat or species.

Like the Proposed Project's 70 kV power line, Alternative SE-PLR-2 would be operated remotely and no staff would be present on-site. Inspections of the facilities would occur periodically and maintenance and repairs would be conducted on an as-needed basis. Some vegetation trimming would be required to maintain acceptable clearances per G.O. 95, but these activities would not be expected to substantially affect special-status plants or species. As described in Impact BIO-1, the 70 kV power line under Alternative SE-PLR-2 would have potential to adversely impact raptors, such as golden eagle and other special-status bird species (e.g., electrocution), which would constitute a significant impact. This risk would be elevated for the Alternative SE-PLR-2 route given the presence of several known golden eagle nests within proximity to this route. To avoid or minimize these effects, **Mitigation Measure BIO-3** would be implemented, which would require that the power line follow APLIC guidelines for avian protection. Other operation and maintenance activities would not be expected to substantially affect special-status invertebrates, amphibians, reptiles, or mammals. Overall, impacts under significance criterion A would be **less than significant with mitigation**.

As discussed above, the Alternative SE-PLR-2 route would parallel and cross Spanish Camp Creek at South River Road. The route also would pass through areas of blue oak woodland (PG&E 2019), which is considered a sensitive natural community by the City of Paso Robles and CDFW. Based on current alternative design and vegetation mapping, Alternative SE-PLR-2 would permanently impact 0.91 acre and temporarily impact 6.58 acres of blue oak woodland habitat. To mitigate the impacts to blue oak woodland, **Mitigation Measure BIO-4** would be implemented, which would require development and implementation of a blue oak woodland habitat restoration plan. This would include replacement of any removed trees and would reduce impacts on blue oak woodland from Alternative SE-PLR-2 to a level that is less than significant. As a result, impacts under significance criterion B would be **less than significant with mitigation**.

As described above, the Alternative SE-PLR-2 route would cross Spanish Camp Creek, as well as a seasonal wetland/potential vernal pool near the intersection of South River Road and Lothar Lane (PG&E 2019), which could be protected under federal and State law. However, the alternative would be designed to avoid direct impacts to wetlands in accordance with APM HYDRO-1 and **Mitigation Measure BIO-1**. At this time, there is no reason to believe that State or federally protected wetlands would be directly impacted by Alternative SE-PLR-2; however, if it were to become necessary to site a pole or work area within a wetland or waters, the Applicants would be required to obtain authorization from regulatory agencies and provide mitigation. Indirect effects to wetlands present along and within the drainages in the Alternative SE-PLR-2 area (e.g., discharge of sediment and pollutants, fugitive dust) would be minimized through implementation of APMs HYDRO-1, HAZ-1, GEN-1, and AIR-3; Mitigation Measure BIO-1; and compliance with the Construction General Permit (SWPPP). With implementation of these measures, impacts under significance criterion C would be **less than significant with mitigation**.

The blue oak woodland and grassland areas along Alternative SE-PLR-2, as well as Spanish Camp Creek, could serve as migration corridors for wildlife. Construction activities may temporarily impede wildlife movement in these areas due to the ground disturbance, pedestrian and vehicle traffic, and noise (which could frighten wildlife and cause them to avoid these areas). However, these effects would be temporary and would only last over limited segments for the duration of active construction (total overall construction would be approximately 33 months). Once constructed, the 70 kV power line would not impede wildlife movement, as the poles would be spaced many feet apart and no fencing or other obstructive facilities would be installed. Pre-construction surveys under APM BIO-1 and **Mitigation Measure BIO-1** would ensure that wildlife nursery sites are not present on the construction site that could be adversely impacted. Overall, impacts under significance criterion D would be **less than significant with mitigation**.

As with the Proposed Project, the siting and design of Alternative SE-PLR-2 would be exempt from local regulations and permitting. Nevertheless, the alternative would be consistent with local policies and ordinances protecting biological resources. By locating Alternative SE-PLR-2 outside of sensitive habitat areas (i.e., largely following existing roads), the alternative would further the goals and policies in the County's and City's General Plans to avoid or minimize impacts on biological resources. As discussed in Impact BIO-5, the APMs that would be implemented for Alternative SE-PLR-2, as supplemented by **Mitigation Measure BIO-1,** would include all of the County of San Luis Obispo's standard kit fox mitigation measures. Alternative SE-PLR-2 may require removal and/or trimming of some oak trees and would result in permanent and temporary impacts to blue oak woodland, as described above; however, impacts to oak trees would be mitigated through **Mitigation Measure BIO-4**, which would be consistent with the City of Paso Robles's Oak Tree Ordinance. As a result, impacts under significance criterion E would be **less than significant with mitigation**.

Alternative BS-2: Battery Storage to Address the Distribution Need

As described in Chapter 3, *Alternatives Description,* potential FTM battery storage sites are identified under Alternative BS-2 for illustrative purposes for this DEIR. FTM battery storage facilities could be constructed at the example FTM sites (1 through 8) or at other sites identified in the future. Biological effects resulting from FTM BESSs sited at the example sites are discussed here for illustrative purposes.

The illustrative FTM BESS sites considered as part of this analysis under Alternative BS-2 (see Figure 3-17 to 3-24 in Chapter 3*, Alternatives Description*) are generally located on vacant parcels within developed areas of Paso Robles or adjacent to existing substations in the County. There is potential for biological resources to occur on some of these sites; however, generally these sites do not include suitable habitat for special-status species. Additionally, no known wetlands or waters occur on any of the potential FTM sites, although the same drainage features described above for Alternative SE-1A would be located to the south of FTM Site 6. Nevertheless, if special-status species were present on the sites prior to construction, substantial adverse effects could occur due to the construction equipment and activities that would be required for installation of BESSs. Once constructed, the FTM BESSs under Alternative BS-2 would be operated remotely and no staff would be present on-site. Inspections of the facilities would occur periodically and maintenance and repairs would be conducted on an as-needed basis. The FTM BESSs would likely not include above-ground power lines that could pose an electrocution or collision hazard to special-status birds. No other operational activities associated with Alternative BS-2 would be expected to substantially affect special-status species.

For those FTM BESS sites considered under Alternative BS-2, construction would not directly impact riparian habitat, as there is no such habitat present on the FTM sites. Likewise, the FTM BESSs would not affect blue oak woodland or any other sensitive natural communities. There are several oak trees present on potential FTM Site 6, as well as on potential FTM Sites 3 and 7, which could require removal depending on the ultimate size of the BESSs. However, removal of these isolated trees would not constitute a substantive impact to a sensitive natural community. As noted above, no State or federally protected wetlands or waters are located on the illustrative FTM sites under Alternative BS-2, although there are two drainage features to the south of potential FTM Site 6 (HWT 2019). In general, the FTM sites themselves would not be expected to support significant wildlife movement and/or migration. Once constructed, the FTM BESSs would not substantially impede wildlife movement and would not represent a substantial change to existing conditions considering the presence of the existing substation infrastructure adjacent to several of the sites and/or the developed surroundings for other sites. As with the Proposed Project, the siting and design of FTM BESSs under Alternative BS-2 would be exempt from local regulations and permitting. Locating the BESSs outside of sensitive habitat areas and adjacent to other existing electrical infrastructure would further the goals and policies in the County's General Plan to avoid or minimize impacts on biological resources.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

The BTM solar systems and BESSs under Alternative BS-3 would primarily be installed on and within existing homes and businesses in the greater Paso Robles area. In some instances, a property owner may install a solar system and/or BESS on an unused portion of the property, potentially resulting in new ground disturbance, but the size and scale of these facilities/activities would be expected to be minor. As a result, the BTM facilities under Alternative BS-3 would not be expected to substantially affect special-status species or habitats; riparian habitat or sensitive natural communities; jurisdictional waters or wetlands; wildlife movement corridors, or local policies or ordinances protecting biological resources.

Due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

4.5 Cultural Resources

4.5.1 Introduction

This section describes the potential impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives related to cultural resources. Section 15064.5(a)(3) of the CEQA Guidelines defines cultural resources as objects, buildings, structures, sites, areas, places, records or manuscripts that are determined historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Relative to the Proposed Project, these resources can be further described as prehistoric archaeological sites, historic-era archaeological sites, historic buildings and structures, landscapes, districts, and linear features. Prehistoric archaeological sites are places where Native Americans lived or carried out activities during the prehistoric period, which is generally prior to the late 1700s for the region. Historic-era archaeological sites reflect the activities of people after initial exploration and settlement in the region by the Spanish during the late 1700s, and later by others. Native American sites can also reflect the historic era. Prehistoric and historic-era sites contain artifacts, cultural features, subsistence remains, and human burials.

4.5.2 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies are applicable to cultural resources and the Proposed Project, reasonably foreseeable distribution components, and alternatives.

State Laws, Regulations, and Policies

California Environmental Quality Act

Section 21083.2 of CEQA (PRC Section 21000 et seq.) requires that the lead agency determine whether a project may have a significant effect on unique archaeological resources. A unique archaeological resource is defined in CEQA as an archaeological artifact, object, or site about which it can be clearly demonstrated that there is a high probability that it:

- Contains information needed to answer important scientific research questions, and there is demonstrable public interest in that information;
- Has a special or particular quality, such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Measures to conserve, preserve, or mitigate and avoid significant effects on these resources are also provided under CEQA Section 21083.2. CEQA Guidelines Section 15064.5 also provides criteria and processes/procedures for identifying and minimizing harm to historical resources.

California Health and Safety Code Section 7050.5

Section 7050.5 of the Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be a Native American, the Coroner must then contact the Native American Heritage Commission (NAHC).

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is established in PRC Section 5024.1. The register lists all California properties considered to be significant historical resources, including all properties listed in, or determined to be eligible for listing, the National Register of Historic Places (NRHP). Resources listed in, or eligible for listing in, the CRHR are referred to as *historical resources.* The criteria for listing in the CRHR include resources that:

1. Are associated with the events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Are associated with the lives of persons important in our past;

3. Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or

4. Have yielded, or may be likely to yield, information important in prehistory or history.

CCR Section 4852 sets forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

4.5.3 Environmental Setting

The following Prehistory, Ethnography, and History environmental setting subsections are taken from the cultural resources chapter of the PEA (NEET West and PG&E 2017a).

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 (NEET West and PG&E 2017a).

The Proposed Project, reasonably foreseeable distribution components, and alternatives areas lie in the Central Coast Archaeological Region, which is one of eight arbitrary organizational divisions of the state (Moratto 2004: Figure 1). 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 (2002:213) 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.–A.D. 1000), Middle–Late Transition (A.D. 1000–1250), and Late Periods (A.D. 1250–1769). This DEIR relies on the regional chronological sequence as adapted by Jones and Ferneau (2002). Prehistoric sites found in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives 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; NEET West and PG&E 2017a).

Ethnography

The Proposed Project, reasonably foreseeable distribution components, and alternatives are in a region traditionally considered to have been prehistorically and ethnohistorically occupied by the Salinan (Hester 1978; Kroeber 1925). Milliken and Johnson's research (2003:128), based on ethnographic and linguistic data and relied upon here, suggests that the Proposed Project, reasonably foreseeable distribution components, and alternatives lie 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 Proposed Project, reasonably foreseeable distribution components, and alternatives areas. Through a detailed analysis of mission records, Milliken and Johnson (2003:122-123) identified a number of rancherias, or villages, within the area of the Proposed Project, reasonably foreseeable distribution components, and alternatives. These include *Lehuege* on Summit Creek; *Sataoyo* at Templeton; *Sososquiquia*, *Scsotce*, and *Sopsich* in the vicinity of Atascadero; *Chmonimo* at Creston; and *Llecmoni* at Paso Robles.

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 1978:501). 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 (1978:501) locates 21 from earlier records (NEET West and PG&E 2017a).

A variety of tools and implements, some of which are inferred from the archaeological record in the area, were employed by Salinan groups (Hester 1978:501). These included stone projectile point and scrapers, ground stone 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; NEET West and PG&E 2017a).

Like other indigenous Californians living near the coastal missions, the 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 1978:503). Beginning in the late 1980s, a cultural revitalization began, and Salinan descendants contacted the Mission San Antonio de Padua to learn about family records (NEET West and PG&E 2017a).

History

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 (NEET West and PG&E 2017a).

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 (NEET West and PG&E 2017a).

City of Paso Robles

The City of El Paso de Robles (Spanish for "the pass of oaks," referred to in this DEIR simply as Paso Robles or City of Paso Robles) has historically served as an economic and transportation hub for the rural agricultural area that encompasses the Proposed Project, reasonably foreseeable distribution components, and alternatives areas. The City of 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 (Kyle 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 (City of Paso Robles 2020). 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 (NEET West and PG&E 2017a).

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 2010:17–18). 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 (NEET West and PG&E 2017a).

East of Paso Robles: Rancho Santa Ysabel, Huer Huero Creek, Dry Creek, and the Estrella River

The Proposed Project, reasonably foreseeable distribution components, and alternatives are in an area east of Salinas River that has been used for ranching and agriculture since the Mission period. Small settlements along Huer Huero/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 coast (NEET West and PG&E 2017a).

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 1998:350; Hoffman 1862:A49). 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. 2002:306). Arce filed a claim to Rancho Santa Ysabel following the Mexican–American War, and was granted a patent in 1866 (State-Surveyor General 1886:17; NEET West and PG&E 2017a). 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 1891:157). This purchase was later developed into present-day parts of Paso Robles and Templeton (NEET West and PG&E 2017a).

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 1983:182; NEET West and PG&E 2017a).

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 2020). 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 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 (NEET West and PG&E 2017a).

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 (NEET West and PG&E 2017a). The Paso Robles Municipal Airport was originally built in 1942 for military use during World War II. It was taken over by San Luis Obispo County in 1949 and was transferred to the City of Paso Robles in 1973 (City of Paso 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 (NEET West and PG&E 2017a).

Native American Coordination

Based on coordination with Native American tribes, it was determined that the Santa Ysabel Ranch area (which is southwest of the Proposed Project but includes the Alternative SE-PLR-2 route) is sensitive for cultural resources. The Xolon-Salinan Tribe indicated that their ancestors had used Dry Creek as a transportation corridor and that the areas surrounding the Estrella and Salinas Rivers are sensitive for cultural resources. Native American consultation through the Assembly Bill 52 process is discussed in Section 4.18, "Tribal Cultural Resources".

Buried Site Sensitivity

The geomorphology of the Proposed Project area (and, by inference, the reasonably foreseeable distribution components and alternatives areas) can be classified into three distinct groups on the basis of landform sediment assemblages (NEET West and PG&E 2017a; Dibblee and Minch 2004; SoilWeb 2016):

1. Pliocene/Pleistocene-aged hillslopes composed of residual silty clay, sandy loam, clay loam, and loam sediments underlain by weathered shale and sandstone bedrock;

2. Late Pleistocene terraces composed of loam and fine sandy loam alluvium; and

3. Holocene-aged valley floors and stream channels composed of gravelly sandy loam and fine sandy loam alluvium.

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. Similarly, Pleistocene-aged alluvial terraces in the Proposed Project area have low potential to contain buried archaeological sites, as Pleistocene terrace surfaces pre-date the majority of human occupation in the region. There is some potential for shallow burial of artifacts within thinly veneered sheetwash deposits that have accumulated on low-lying terrace surfaces over the course of the Holocene; however, if present, these deposits are expected to be shallow and discontinuous. The vast majority of the Proposed Project is underlain by these deposits, which have a very low to low potential to contain buried archaeological sites (NEET West and PG&E 2017a).

Areas containing Holocene-aged valley floor and stream channel alluvium (which are largely confined to the vicinity of Huer Huero Creek and Salinas River in the Proposed Project area) have moderate sensitivity for buried archaeological resources. This is 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. There is potential for preservation of buried cultural deposits within the channel banks and adjacent floodplains of these water courses (NEET West and PG&E 2017a).

Archaeological Resources

A records search by the Central Coast Information Center (CCIC) of the California Historical Resources Information System at University of California, Santa Barbara indicated that, while no previous studies had been conducted within or adjacent to the Estrella Substation site, 21 studies overlapped the new and reconductored 70kV power line segment routes (NEET West and PG&E 2017a). The records search identified only two previously recorded cultural isolates (fragments of a Chinese ceramic dish and a Native American flaked tool of chert) within the Proposed Project study area (NEET West and PG&E 2017a), both of which were within 50 feet of the Proposed Project's 70 kV reconductoring segment. Due to their isolation and lack of context in a larger archaeological site, these artifacts lack the potential to yield information important in prehistory and therefore would not be eligible for listing in the CRHR.

As part of the PEA analysis, SWCA Environmental Consultants performed an archaeological field survey of the Proposed Project area, resulting in the identification and recordation of three previously unrecorded archaeological sites (one prehistoric, two from the historic era) and seven isolated artifacts (all are prehistoric, and include flakes or tool fragments, and one projectile point), all of which occurred along the Proposed Project's new 70kV power line segment (see Table 4.5-1). No archaeological resources were identified at the Estrella Substation site or along the reconductoring segment. The two isolated artifacts previously recorded adjacent to the reconductoring segment could not be relocated during the field survey (NEET West and PG&E 2017a).

Table 4.5-1. Archaeological Sites and Artifacts in the Proposed Project Area

ID Number	Resource Type/Time Period	Description	NRHP/CRHR Eligibility[1]
36052-S-001	Historic era; early 20th century	Well and utility pole	Potentially Eligible
36052-S-002	Historic era; early 20th century	Trash dump	Potentially Eligible
36052-S-003	Prehistoric	Low-density lithic scatter with sparse shell fragments	Potentially Eligible
36052-ISO-02	Prehistoric	Chert biface fragment	Not Eligible
36052-ISO-03	Prehistoric	Chert core	Not Eligible
36052-ISO-04	Prehistoric	Chert biface fragment	Not Eligible
36052-ISO-05	Prehistoric	Chert contracting stem projectile point	Not Eligible
36052-ISO-06	Prehistoric	Chert flake	Not Eligible
36052-ISO-07	Prehistoric	Chert core	Not Eligible
36052-ISO-08	Prehistoric	Chert flake	Not Eligible

Notes: NRHP = National Register of Historic Places; CRHR = California Register of Historical Resources

1. Potentially eligible sites may also qualify as a unique archaeological site pursuant to PRC 21084.1, even if they are not determined eligible for NRHP/CRHR listing.

Source: NEET West and PG&E 2017a, 2017b, 2017c

The archaeological sites listed in Table 4.5-1 are described further below. Due to the limited information value of the isolated artifacts (i.e., ID #36052-ISO-02 to -08), they are not eligible for CRHR listing and are not considered further.

- **Site 36052-S-001** is located along the Proposed Project's 70kV power line route between Union Road and Huer Heuro Creek. The site consists of a well and associated utility pole. The well is comprised of two metal pipes encased in a concrete slab. The pipes are 12.75 inches and 6 inches in diameter; the concrete slab is measures 40 by 34.5 inches and is 1 foot thick. The cedar utility pole is located 9 feet southwest of the well and is about 256 feet tall. It is tied into a modern utility pole on Union Road. The entire site area is about 10 feet by 4 feet.

- **Site 36052-S-002** is situated near the western end of the new 70kV power line segment, on an open slope above a shallow, very ephemeral drainage. Although the site area is not cultivated, an orchard and cultivated fields are in close proximity. This historic era site is marked by a variety of modern and early twentieth century refuse. Materials from around the 1930s include car and stove parts; more modern (ca. 1980s) items include, but are not limited to, bottle glass, galvanized sheet metal, clothing, tires, and chicken wire. Most of these items have been pushed together into a 10-foot-high pile. Also

present are five pieces of farm machinery that range in age from the 1930s to the 1960s. Overall, the historic era materials cover an area measuring 20 feet by 50 feet.

- **Site 36052-S-003** is a prehistoric site that sits on a bluff overlooking the Salinas River at the west end of the Proposed Project's new 70kV power line segment. Cultural materials at the site include a sparse scatter of debris from the manufacture of stone tools, and shell remains.

CCIC records searches were conducted for each of the alternatives carried forward for full consideration in the DEIR to identify any known recorded archaeological resources in these areas. Additionally, pedestrian archeological surveys were conducted for portions of alternatives where access was permitted by local landowners (NEET West 2019; NEET West and PG&E 2017a, 2017b, 2017c; PG&E 2019). Surveys focused on areas where environmental (e.g., proximity to water, landform) and cultural (e.g., presence of known resources in similar settings) factors indicated elevated cultural resources sensitivity. Access was not granted to the Alternative SS-1 site, so this site was not subject to pedestrian survey. The eastern-most portion of Alternative PLR-1C (including MRVs 1 and 2) and the example FTM sites (except FTM Site 6) under Alternative BS-2 also were not surveyed due to access restrictions. Table 4.5-2 lists archeological sites and artifacts in proximity to alternatives that were identified through the record searches and/or pedestrian surveys.

Table 4.5-2. Archaeological Sites and Artifacts in Proximity to Alternatives

ID Number	Proximity to Alternative	Resource Type	Description	NRHP/CRHR Eligibility[1]
36052-ISO-011	PLR-1A/PLR-1C	Prehistoric	Isolated chert flake	Not Eligible
P-40-038109	SE-PLR-2	Historic era isolate	Mortared rock wall segment	Not Eligible
EST-SR-001	SE-PLR-2	Historic era	Metal artesian well	Potentially Eligible

Notes: NRHP = National Register of Historic Places; CRHR = California Register of Historical Resources

1. Potentially eligible sites may also qualify as a unique archaeological site pursuant to PRC 21084.1, even if they are not determined eligible for NRHP/CRHR listing.

Source: NEET West and PG&E 2017a; PG&E 2019; NEET West 2019

Due to the limited information value of the isolated artifact (i.e., ID #36052-ISO-11), it is not eligible for CRHR listing and is not considered further. The historic era mortared rock wall segment (ID #P-40-038109) was identified through the records search but was not relocated during the pedestrian survey. Further review of the archaeological site forms provided by the CCIC revealed that the site is likely located just outside the Alternative SE-PLR-2 alignment and appears to have been destroyed during development of the area (PG&E 2019). The historic era resource listed in Table 4.5-2 as ID #EST-SR-001 consists of a single metal artesian well that is located on the east side of South River Road. No artifacts or other features were observed around the well and the feature's integrity may have been impacted by agricultural activity (PG&E 2019).

Built Environment Resources

A survey of the built environment within and adjacent to the Proposed Project footprint was conducted by SWCA Environmental Consultants, as documented in the PEA. The survey resulted in the recordation and evaluation of eleven resources in the vicinity of the Proposed Project, as listed in Table 4.5-3 and described further below.

Table 4.5-3. Built Environment Resources in the Proposed Project Vicinity

Identification Name	Resource Description	Build Date	NRHP/CRHR Eligibility
Steinbeck Vineyards and Winery	Vineyard property	Early 20th century	Not Eligible
Falcon Nest Vineyard and Winery	Vineyard property	Early 20th century	Not Eligible
Johnson House (2965 Union Road)	Masonry residential building	Circa 1890	Eligible
3310 Union Road	Property containing various residential and agricultural buildings	1940	Not Eligible
3510/3530 Union Road	Property containing various residential and agricultural buildings	1948/1964	Not Eligible
3570 Union Road	Property containing two single-family residences and various outbuildings	1962	Not Eligible
4374 Union Road	Property containing three residences and various outbuildings	1920	Not Eligible
5715 Union Road	Vineyard property	Early 20th century	Not Eligible
Existing PG&E 230 kV Transmission Line	Transmission Line	1962	Not Eligible
Existing Diablo-Gates 500 kV Transmission Line	Transmission Line	1971	Not Eligible
Existing San Miguel-Paso Robles 70 kV Power Line	Wood Pole Transmission Line	Circa 1954	Not Eligible

Notes: NRHP = National Register of Historic Places; CRHR = California Register of Historical Resources

Source: NEET West and PG&E 2017a, 2017b, 2017c

As shown in Table 4.5-3, of the 11 built environment resources identified during the survey, only one (the Johnson House at 2965 Union Road) was determined to be eligible for listing in the

CRHR. The CPUC concurs with the eligibility determinations of SWCA Environmental Consultants described in the PEA; refer to the PEA for detailed descriptions of the eligibility determinations. The Johnson House is discussed further below.

- **The Johnson House (2965 Union Road)** is a two-story brick 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 property was constructed by Peter Johnson around 1890 with bricks that he made himself. Johnson simultaneously recognized a market for building materials in rapidly developing Paso Robles and began to manufacture bricks for sale. These bricks were used to construct a number of extant residences along Park Street in the 1890s and early 1900s**.** The Johnson House represents a rare example of a brick masonry single-family residence in this rural area of the city (Historic Resources Group 2010:45).

  In considering the integrity of the property, the replacement of original windows and doors and the removal of an original porch and cistern have affected some aspects of the building's design and materials. The sale and subdivision of the original Johnson land holdings and development of the immediate surrounding area has also affected aspects of the property's association and setting; however, extant late 19th century residences in Paso Robles are increasingly rare and because of this, a greater degree of alterations is permissible (Historic Resources Group 2010:65). The Johnson House still retains those essential features that enable it to convey its significance, including its square plan, masonry construction, original window and door openings, and central brick chimney (NEET West and PG&E 2017a).

  The Johnson House continues to reflect special elements of the historical and architectural development of Paso Robles and, as a late 19th century brick masonry residence, embodies the distinctive characteristics of a property type and method of construction that is increasingly rare in Paso Robles. As such, the property appears eligible for listing in the CRHR under Criterion 1 and 3. Although Peter Johnson manufactured bricks that were used in the construction of a number of extant buildings in Paso Robles, he does not appear to be demonstrably important within the historic context of early development of Paso Robles. As a result, the property does not appear eligible for CRHR listing under Criterion 2. Research also does not suggest that the property has the potential to yield information important in history (Criterion 4) (NEET West and PG&E 2017a).

Built environment resources within proximity to the alternatives were surveyed by SWCA Environmental Consultants and are listed below in Table 4.5-4. Alternatives SS-1, the eastern-most portion of Alternative PLR-1C (including MRVs 1 and 2), and example FTM sites under Alternative BS-2 were not surveyed due to access restrictions or other limitations.

Table 4.5-4. Built Environment Resources in the Alternatives Vicinity

Identification Name	Proximity to Alternative	Resource Description	Build Date	NRHP/CRHR Eligibility
Diablo-Gates 500kV Transmission Line	PLR-1A	Transmission line	1970s	Not Eligible
Steinbeck Vineyards and Winery	PLR-1A	Vineyard property	Early 20th century	Not Eligible
4060 Branch Road	PLR-1A/PLR-1C	Vineyard property	Early- to mid-20th century	Potentially Eligible
4750 Tower Road	PLR-1A/PLR-1C	Agricultural property	Early 20th century	Potentially Eligible
1997 Wellsona Road	PLR-1A/PLR-1C	Agricultural property	Early 20th century	Potentially Eligible
1880 Wellsona Road	PLR-1A/PLR-1C	Agricultural property	Mid-20th century	Potentially Eligible
San Miguel-Paso Robles 70kV Power Line	PLR-1A/PLR-1C	Transmission line	Mid-20th century	Not Eligible
1050 Via Paloma	SE PLR-2	Residential property	Historic-era	Not Eligible
841 South River Road	SE PLR-2	Residential property	Historic-era	Not Eligible
715 South River Road	SE PLR-2	Residential property	Historic-era	Not Eligible
735 South River Road	SE PLR-2	Residential property	Historic-era	Not Eligible
3995 Concho Way	SE PLR-2	Residential property	Historic-era	Not Eligible

Notes: kV = kilovolt; NRHP = National Register of Historic Places; CRHR = California Register of Historical Resources

Source: NEET West and PG&E 2017c; PG&E 2019; NEET West 2019

As shown in Table 4.5-4, several of the built environment resources in proximity to the alternatives had been evaluated as part of the Proposed Project survey and determined not to be eligible for listing in the CRHR. A number of other built environment resources were evaluated and determined to be not eligible for listing in the CRHR, as described in the technical reports for these alternatives (NEET West and PG&E 2017c; PG&E 2019; NEET West 2019). The CPUC concurs with the eligibility determinations by SWCA Environmental Consultants. Several other resources (4060 Branch Road, 4750 Tower Road, 1997 Wellsona Road, and 1880 Wellsona Road) have not been evaluated and are considered potentially eligible.

4.5.4 Impact Analysis

Methodology

The analysis considered the potential for the Proposed Project, reasonably foreseeable distribution components, and alternatives to impact known and unknown cultural resources during construction or operation pursuant to the significance criteria listed below. The impact analysis considered the existing laws and regulations presented in Section 4.5.2 and relied on environmental setting information presented in Section 4.5.3.

Criteria for Determining Significance

Section 15064.3(b) of the CEQA Guidelines notes that "A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." It further states that "[a] substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (Section 15064.3(b)(1)). To be materially impaired is defined as an action that demolishes or materially alters the physical characteristics of an historical resource in an adverse manner such that it no longer conveys those characteristics the contribute to its historical significance and that justify its inclusion in listed registers (Section 15064.3(b)(2)). It is the responsibility of the CEQA lead agency to identify potentially feasible, enforceable measures to mitigate significant changes in the significance of an historical resource (Section 15064.3(b)(3)).

If an archaeological site does not meet the criteria as a historical resource, but has been determined to be a unique archaeological resource pursuant to PRC 21083.2(g), the lead CEQA agency must similarly address potential impacts.

For the purposes of this analysis, the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in a significant impact to cultural resources if they would:

A. Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines section 15064.5;

B. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5;

C. Disturb any human remains, including those interred outside of dedicated cemeteries.

Environmental Impacts

Proposed Project

Impact CR-1: Cause a substantial adverse change in the significance of a historical and/or archaeological resource as defined in Section 15064.5 – *Less than Significant with Mitigation*

As described in Section 4.5.3, cultural resources surveys conducted for the Proposed Project identified three archaeological sites, seven archaeological isolates, and 11 resources of the built environment. For purposes of this analysis, the three archaeological sites are considered potentially eligible for listing in the CRHR eligibility and are considered historical resources under CEQA. The seven archaeological isolates were not indicative of larger sites and thus are not considered eligible for listing in the CRHR or unique archaeological resources; however, their presence attests to the widespread general use of the region by the indigenous population during the pre-historic and historic past. As noted above, coordination with Native American tribes in the area indicated that the areas of the Proposed Project region near surface waterbodies, in particular (e.g., Dry Creek, and Estrella and Salinas rivers), are sensitive for cultural resources. Of the 11 built environment resources, only the Johnson House appears to be eligible for listing on the CRHR. This house is situated off Union Road along the Proposed Project's 70 kV power line route near the point where the power line would cross SR 46.

The Proposed Project may have a significant impact on the environment if the Project were to cause a substantial adverse change in the significance of the known potentially eligible cultural resources described above, such as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings that would render the resources ineligible for listing in the CRHR, any local register of historical resources, or identifiable in an historical resources survey meeting the requirements of PRC Section 5024.1(g). Likewise, if Proposed Project ground-disturbing construction activities were to uncover buried unknown archaeological resources and these resources were not properly treated, this would result in a significant impact. Given the sensitivity of areas near the Salinas River and past use of the river and immediate surroundings by Native Americans, there is potential for resources to be encountered during excavation and grading activities associated with construction of the Proposed Project's 70 kV reconductoring segment, which would be installed largely along the Salinas River corridor. Based on the buried site sensitivity analysis described in Section 4.5.3, construction of new 70 kV power line poles across Huer Huero Creek near Union Road would also have potential to encounter preserved buried cultural deposits in the Holocene-aged valley floor and stream channel alluvium. In particular, installation of concrete pier foundations for poles, which will reach depths of up to 20 feet, would have the greatest potential to encounter/impact buried resources. Minor grading for structure locations, pull and tension sites, and access roads could also reveal buried archaeological materials.

As described in Chapter 2, *Project Description,* the Applicants have proposed APMs (see Table 2-12) that would avoid or minimize potential impacts on cultural resources. Specifically, APM CUL-1 would require that a cultural resources principal investigator (meeting the Secretary of the Interior's standards for professional archaeology) be retained to ensure all APMs related to archaeological and historical resources are properly implemented. Per APM CUL-2, the Proposed Project is specifically designed to avoid impacts to the potentially CRHR-eligible resources

identified in the area (i.e., the three archaeological sites [36052-S-001, 36052-S-002, and 36052-S-003] and the Johnson House). During construction, a 50-foot buffer would be established around the boundary of each respective resource and these areas would be designated as environmentally sensitive areas. If work within the 50-foot buffer cannot be avoided, then monitoring would be required. Additionally, construction activities would avoid impacts to the Johnson House entirely.

APM CUL-3 would require that, in the event of a discovery of unanticipated cultural materials during construction, all construction work within 50 feet of the discovery would cease and the principal investigator would be consulted to assess the find. While avoidance of resources is preferred, if avoidance of the resource is not feasible and the resource is found to be significant, a detailed archaeological treatment plan, including Phase III data recovery, would be developed and implemented by a qualified archaeologist. APMs CUL-5 and CUL-6 would provide for construction monitoring of initial ground-disturbing activities (i.e., initial excavation and grading) by a tribal monitor and an archaeological monitor. Under both of these APMs, the monitoring would be required for initial ground-disturbing activities that may occur within 50 feet of Dry Creek, Huer Huero Creek, and the Salinas River or known prehistoric archaeological sites. The archaeological monitor would also be required to monitor construction activities within 50 feet of any known historic sites.

Finally, APM GEN-1 would require that the Applicants prepare and implement a worker environmental awareness program for construction personnel, which would include training on, among other things: (1) how to identify cultural resources; (2) avoidance requirements and procedures to be followed if unanticipated cultural resources are discovered during construction (see APM CUL-3), and (3) disciplinary actions that may occur when historic preservation laws are violated.

Implementation of the APMs described above would avoid or reduce many of the potential cultural resource impacts associated with Proposed Project construction. Avoidance and marking of the archaeological sites identified through the field surveys would minimize the potential for encountering buried resources associated with these sites. With respect to the Johnson House, implementation of APM CUL-2 would ensure that the house is not directly impacted by Proposed Project construction. While installation of the new 70 kV power line along Union Road could adversely affect the viewshed from the house, this would not demolish or materially alter the Johnson House's physical characteristics that justify its eligibility for inclusion in the CRHR. The house itself would not be impacted by construction or operation of the Proposed Project. APMs CUL-3, CUL-5, and CUL-6 likewise would increase the likelihood that any uncovered buried resources during initial ground-disturbing activities in sensitive areas could be accurately identified (by having tribal and archaeological monitors present). The procedures outlined in APM CUL-3 would help to ensure that significant impacts to any identified archaeological resources would not occur, and APM GEN-1 would ensure that construction workers are aware of how to identify cultural resources and the protocols to follow in the event of an unanticipated discovery.

Overall, implementation of APMs CUL-1, CUL-2, CUL-3, CUL-5, CUL-6, and GEN-1 would reduce potential impacts to historical and archaeological resources during Proposed Project construction activities. However, due to a lack of specificity in some of the APMs, and some contradictory language in others, the APMs would not completely reduce potential impacts to a level that is less than significant; thus leaving the opportunity for construction to cause a substantial adverse change in the significance of known eligible and potentially eligible cultural resources. **Mitigation Measure CR-1** provides enhancements, as identified by the CPUC, to the APMs listed above to provide the specificity required to reduce potential impacts to cultural resources to a less than significant level. During operation, the Proposed Project would not involve substantial ground-disturbing activities and thus, would not result in impacts to historical or archaeological resources during this phase. As a result, this impact would be **less than significant with mitigation**.

Mitigation Measure CR-1: CPUC Enhancements to APMs CUL-1, CUL-2, CUL-3, CUL-5, and CUL-6.

The following actions by the CPUC are designed to augment the APMs provided by the Project proponents to ensure that construction impacts to cultural resources are mitigated to a level of less than significant:

a. The CPUC shall appoint a qualified archaeologist to represent the interests of the CPUC and oversee the implementation of the APMs with regard to archaeological resources on their behalf. The archaeologist shall meet the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology.

b. The Project proponents shall make every effort to design the project to avoid known eligible or potentially eligible cultural resources for the Proposed Project, reasonably foreseeable distribution components, and alternatives. A 50-foot buffer, using flagging, rope, tape, or fencing, shall be established around the boundary of each respective resource, which shall be designated an environmentally sensitive area. If the proponent engineers determine that the project cannot be designed to avoid known cultural resources and construction will encroach upon the resource buffer, construction monitoring by an archaeologist shall be required. A Native American representative from a consulting tribe shall be retained to monitor the construction activities if the resource is a Native American archaeological site. If an archaeological resource will be directly impacted, a detailed archaeological treatment plan shall be developed and implemented by the Project proponent's cultural resources principal investigator, as defined in APM CUL-1. The treatment plan shall be developed using the mitigation options provided under Section 15126.4(b) of the CEQA Guidelines. The CPUC and the CPUC professional archaeologist shall have opportunity to review and comment on the proposed treatment plan. If the resource is a Native American archaeological site, tribes that have entered into AB 52 consultation with the CPUC shall have the opportunity to review and comment on the treatment plan. The resource and treatment method shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System.

c. If prehistoric or historic-era archaeological resources are encountered during Project implementation, the Project proponents shall immediately cease all construction activity within 50 feet of the find and create a 50-foot buffer area for avoidance. The archaeological monitor shall notify the Project's cultural resources principal investigator immediately, and the principal investigator shall, in turn, notify the CPUC and their appointed professional archaeologist. If an archaeological monitor is not present at the time of the find, Project proponent's environmental inspector or construction supervisor shall make the notifications. The Project's cultural resources principal investigator shall inspect the find within 24 hours of discovery and notify the CPUC of their initial assessment. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls, and deposits of metal, glass, and/or ceramic refuse.

   If the CPUC determines, based on recommendations from the cultural resources principal investigator, that the resource may qualify as a historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5), or a tribal cultural resource (as defined in PRC Section 21074), the resource shall be avoided if feasible. Avoidance means that no activities associated with the Project that may affect cultural resources shall occur within the boundaries of the resource or any defined buffer zones.

   If avoidance is not feasible, the CPUC shall consult with appropriate Native American tribes if the resource is Native American-related, and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC Section 21083.2, and CEQA Guidelines Section 15126.4(b). This shall include documentation of the resource and may include data recovery or other measures. Any treatment other than preservation in place must be approved by the CPUC and the appropriate tribe, if applicable. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource. The resource and treatment method shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System. Work in the area may commence, at the direction of the CPUC, upon completion of treatment and under the direction of the qualified archaeologist.

d. Construction monitoring shall be conducted by an archaeologist for initial ground-disturbing activities that may occur within 100 feet of Dry Creek, Huer Huero Creek, the Salinas River, and the Estrella River, or within 50 feet of all known archaeological sites. Ground-disturbing activities are defined as

activities that may include, but are not limited to boring, grading, grubbing, excavation, drilling, and trenching, within the project areas. Monitoring of ground disturbance would also occur in the vicinity of Santa Ysabel Ranch, which was identified as culturally sensitive by AB 52 consulting tribes. The archaeological monitor will complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, and any cultural materials identified. The logs will be compiled and submitted to the CPUC on a regular basis to be determined during preparation of the Mitigation Monitoring and Reporting Plan. Should any archaeological materials be unearthed, the monitor shall follow the directives of Mitigation Measure CR-1(c). If human remains are discovered during project construction the archaeological monitor shall comply with Mitigation Measure CR-2. The archaeological monitor will work in tandem with the Native American monitor. The involvement of Native American monitors is described in Mitigation Measure TCR-1.

Impact CR-2: Disturb human remains, including those interred outside of dedicated cemeteries – *Less than Significant with Mitigation*

Ground-disturbing activities during construction of the Proposed Project would have potential to encounter buried human remains. For the reasons discussed in Impact CR-1, the potential for encountering such remains would be highest in areas that are sensitive for cultural resources, such as within stream corridors and adjacent to known Native American archaeological sites. This is based on the assumption that human remains are most likely to be encountered in areas of heaviest past habitation/use by indigenous peoples. However, there would be potential to encounter buried human remains in any area the Proposed Project plans disturbance, especially where there would be deep excavations for pole and tower foundations. If human remains were discovered during these activities and the remains were not treated with respect and/or proper protocols were not followed, this would result in a significant impact.

As described in Chapter 2, *Project Description,* APM CUL-4 would require that protocols be followed consistent with California Health and Safety Code Section 7050.5 in the event that human remains are discovered. If human remains are discovered, all work within 50 feet of the discovery would cease and the environmental inspector or construction supervisor would notify the County Coroner immediately. If the human remains are determined to be Native American, the County Coroner would notify the NAHC, which would determine and notify a most likely descendant. The most likely descendant would then inspect the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of the human remains and any items associated with Native American burials. Implementation of this APM would reduce any potential impacts on human remains during Proposed Project construction but, given the APM's time limitations for the most likely descendant to respond to the request, this impact could be significant. **Mitigation Measure CR-2** would follow the legal requirements of PRC Section 5097.98, which allows the most likely descendant 48 hours from the time they are *granted access* to the property, rather than 48 hours of notification per APM CUL-4, to make recommendations about the disposition of the human remains. Implementation of this mitigation measure would reduce this impact to a level that is less than significant**.**

The Proposed Project is not expected to require excavation during the operation phase. Thus, there would be no potential to encounter or adversely impact human remains during operation. As such, this impact would be **less than significant with mitigation.**

Mitigation Measure CR-2: Comply with the Legal Requirements of PRC 5097.98.

California Health and Safety Code Section 7050.5 shall be followed, as described in APM CUL-4, if human remains are discovered during construction of the Proposed Project or reasonably foreseeable distribution components or alternative. If human remains are discovered, all work within 50 feet of the discovery shall cease and the archaeological monitor shall immediately notify the Project's cultural resources principal investigator. In turn, the principal investigator shall immediately notify the County coroner, as well as the CPUC and their appointed professional archaeologist. If an archaeological monitor is not present at the time of the find, Project proponent's environmental inspector or construction supervisor shall make the notifications. 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 Project proponent's lead cultural resource manager, the CPUC, and the qualified archaeologist representing the CPUC shall be immediately notified. The County Coroner who evaluated the finds will notify the NAHC by telephone within 24 hours. In turn, the NAHC shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The most likely descendent will complete inspection of the site and make recommendations or preferences for treatment within 48 hours of being granted access to the site. Construction will not continue in the protected area until treatment of the remains has been resolved and notice is provided by the CPUC archaeologist to resume work in the area.

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

Like the Proposed Project, construction of the reasonably foreseeable distribution components would involve excavation and other ground-disturbing activities (albeit on a much smaller scale) that could potentially encounter buried cultural resources. The portions of the reasonably foreseeable new distribution line segments that come close to, or cross, Dry Creek would have the most potential for encountering cultural resources. The distribution work within the Estrella Substation (e.g., installing the 70/21 kV transformer and related equipment) would not impact cultural resources since site preparation and grading of this area would already have been conducted as part of the Proposed Project. Likewise, foundations for new equipment related to ultimate substation buildout (e.g., transformer, breakers, switches, etc.) would occur within the fence line of the already constructed Estrella Substation and, therefore, would not impact cultural resources. However, other activities involving new ground disturbance outside the Estrella Substation footprint could cause a substantial adverse change in the significance of a historical or archaeological resource. Note that the routes of any additional future distribution feeders and/or 70 kV power lines that could be established through ultimate substation buildout are not known; thus, the potential impacts associated with these facilities are speculative and not evaluated in this DEIR.

To minimize potential impacts, **Mitigation Measure CR-3** would be implemented, which would require that a pedestrian archaeological survey be conducted for the reasonably foreseeable distribution components prior to construction and that avoidance and minimization measures be implemented for any identified resources. APMs CUL-1, CUL-2, CUL-3, CUL-5, CUL-6, and GEN-1 would also be implemented, as well as **Mitigation Measure CR-1**, which, together with Mitigation Measure CR-3, would reduce potential impacts to historical and/or archaeological resources during construction to a level that is less than significant. Since the reasonably foreseeable distribution and ultimate substation buildout components would be operated remotely, and no excavation or ground-disturbance is anticipated during the operation phase, the facilities would not impact historical or archaeological resources following construction. Therefore, impacts under significance criteria A and B would be **less than significant with mitigation.**

Construction of the reasonably foreseeable distribution components would involve ground-disturbing activities, such as excavation necessary for pole installations, that may uncover buried human remains. Construction of the additional 230 kV interconnection for ultimate substation buildout would occur outside the existing Estrella Substation footprint, and thus would have potential to encounter buried human remains. As described in Impact CR-2, if discovered human remains were discovered and the remains were not treated with respect and proper protocols were not followed, this would result in a significant impact. However, implementation of **Mitigation Measure CR-2** would reduce potential impacts through the requirement that PG&E follow protocols that are consistent with those outlined in California Health and Safety Code Section 7050.5 and would ensure that human remains are not disturbed during construction of the reasonably foreseeable distribution components and ultimate substation buildout. Because operation of the reasonably foreseeable distribution and ultimate substation buildout components would not require excavation or ground-disturbing activities, it would not impact human remains during this project phase. Overall, impacts under significance criteria C would be **less than significant with mitigation.**

Mitigation Measure CR-3: Complete Cultural Resources Studies, Evaluate Resources for Significance, and Implement Avoidance and Minimization Measures.

HWT, PG&E, and/or their contractors shall conduct a pedestrian archaeological survey and built environment resources survey for any alternative substation sites, 70 kV power line alignments (or portions of alignments), reasonably foreseeable distribution components, and/or ultimate substation buildout sites that have not yet been investigated and shall prepare a Cultural Resources Technical Report documenting the results of the surveys. The archaeological and built environment resources surveys shall be completed prior to construction of the respective components and prior to final design.

The pedestrian survey shall include systematic surface inspection with transects spaced at 15-meter (approximately 50-foot) intervals, or less, and shall cover the entire site or alignment and a 100-foot buffer around the site or alignment. Archaeologists shall examine the ground surface for the presence of prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools), historical artifacts (e.g., metal, glass, ceramics), sediment discoloration that might indicate the presence of a cultural midden, roads and trails, and depressions and other features that might indicate the former

presence of structures or buildings (e.g., post holes, foundations). When cultural resources are encountered, archaeologists shall collect all data necessary to complete the appropriate California Department of Parks and Recreation (DPR) 523 series forms from the Office of Historic Preservation. The resources shall be mapped with handheld mapping-grade global positioning system (GPS) units with sub-meter accuracy and differential correction. All GPS data shall be exported into Geographic Information Systems geodatabases and plotted onto the associated geo-referenced USGS 7.5-minute quadrangle to ensure accuracy and to produce location maps of all resources. Each site shall also be photo-documented. No artifacts will be collected during the pedestrian survey.

The built environment resources survey shall be conducted for alternatives that have not previously been surveyed by a qualified architectural historian, and shall include all structures, properties, and other built resources within the footprint or alignment and within a 100-foot buffer of the site footprint or alignment. Resources identified through the built environment resources survey will be recorded on the appropriate DPR 523 forms.

Avoidance and delineation of a buffer around any potentially CRHR-eligible archaeological resources in the study area identified through the field surveys or evaluations under this mitigation measure shall follow the procedures outlined in APM CUL-2. If the resource(s) cannot be avoided, the qualified archaeologist shall develop an evaluation plan to ascertain the site's eligibility for listing in the CRHR. The evaluation plan must be submitted to and approved by the CPUC prior to any excavation. The CPUC shall ensure consulting tribes have the opportunity to review evaluation plans for Native American archaeological sites. Archaeological sites found to contain human remains must be treated in accordance with the provisions of Section 7050.5 of the California Health and Safety Code (see APM CUL-4 and Mitigation Measure CR-2).

Should any archaeological site be determined eligible for listing in the CRHR, and if Project proponent design engineers determine that any portion of the site that contributes to its eligibility cannot be avoided by construction, a data recovery program shall be necessary and a detailed data recovery plan shall be prepared by a qualified archaeologist per Mitigation Measure CR-1(b). The data recovery plan must be submitted and approved by the CPUC prior to implementation of the plan. The CPUC shall ensure that consulting tribes will have the opportunity to review the data recovery plan for any CRHR-eligible Native American site.

For any artifacts removed during project evaluation or data recovery excavations, the Project proponent's qualified archaeologist must provide for the curation of such artifact(s). For structure(s) evaluated as a historical resource(s) that cannot be avoided, the affected building(s) will be documented by a qualified architectural historian according to the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation.

Alternatives

No Project Alternative

Under the No Project Alternative, no new substation or 70 kV power line would be constructed or operated. Therefore, there would be no potential for ground-disturbing activities to encounter historical or archaeological resources or human remains. None of the built environment resources in the area would be affected. As a result, **no impact** would occur under any of the significance criteria.

Alternative SS-1: Bonel Ranch Substation Site

The records search for Alternative SS-1 did not reveal the presence of any known previously recorded archaeological sites or built environment resources within the proposed substation footprint. However, this alternative site has not been subject to a pedestrian survey for archaeological resources and its location near the Estrella River indicates that there is sensitivity for buried archaeological remains. Thus, construction of Alternative SS-1 could result in significant impacts to cultural resources. As a result, **Mitigation Measure CR-3** would be implemented, which would require that a pedestrian archaeological site survey be conducted prior to construction. Archaeologists conducting the pedestrian surveys would document any cultural resources discovered in DPR 523 series forms and identified cultural resources would be avoided during construction. If Project proponent design engineers determine that avoidance is not possible, the resources would be evaluated and treated appropriately by a qualified archaeologist, as described in Mitigation Measure CR-1(b).

APMs CUL-1, CUL-2, CUL-3, CUL-5, CUL-6, and GEN-1 would also be implemented. Implementation of these measures would reduce the potential for Alternative SS-1 to impact historical and/or archaeological resources (see Impact CR-1 for detailed discussion of how these measures would avoid or minimize impacts); however, significant impacts could still occur due to a lack of specificity in some of the APMs and contradictory language in others. Implementation of **Mitigation Measure CR-1** would ensure that impacts to cultural resources would be less than significant. As it would be operated remotely and would not require substantial excavation or ground-disturbance during operation, the substation under Alternative SS-1 would not impact cultural resources during the operation phase. Therefore, impacts under significance criteria A and B would be **less than significant with mitigation.**

Construction of Alternative SS-1 would have similar (or slightly elevated) potential to encounter buried human remains compared to the proposed Estrella Substation. The potential would be slightly elevated under Alternative SS-1 due to the site's location close to the Estrella River, which Native American tribes in the area have indicated is sensitive for cultural resources. Implementation of APM CUL-4 would require that HWT and PG&E follow protocols that are consistent with those outlined in California Health and Safety Code Section 7050.5 and would ensure that human remains are not disturbed during construction of Alternative SS-1. The limitations of APM CUL-4 could ultimately result in significant change to burial sites; however, implementation of **Mitigation Measure CR-2** would reduce such impacts to less than significant. Because Alternative SS-1 is not anticipated to require excavation or ground-disturbing activities during operation, it would not impact human remains during the operation phase. Overall, impacts under significance criteria C would be **less than significant with mitigation.**

Alternative PLR-1A: Estrella Route to Estrella Substation

As described in Section 4.5.3, no CRHR-eligible archaeological resources were identified within or along the Alternative PLR-1A alignment. Several built environment resources were identified along the alignment, which were either determined to not be eligible for listing in the CRHR or were not evaluated and are potentially eligible. As a result, Alternative PLR-1A could cause an adverse change in the significance of these resources by demolishing or materially altering their physical characteristics in an adverse manner such that it no longer conveys those characteristics that qualify the resource as a historical resource. This would be a significant impact. **Mitigation Measure CR-3** would be applied to ensure that avoidance and minimization measures are implemented for these resources. Because the Alternative PLR-1A route has already been subject to a pedestrian archaeological survey, this would not be required under Mitigation Measure CR-3. Even while archaeological resources were not identified during the field survey, such resources could still be encountered during Alternative PLR-1A construction activities (in particular, deep excavations for pole installation). Areas where the Alternative PLR-1A alignment crosses Dry Creek, Huer Huero Creek, and other smaller drainages, and parallels the Salinas River would be most sensitive for buried cultural resources.

APMs CUL-1, CUL-3, CUL-5, CUL-6, and GEN-1 would be implemented for Alternative PLR-1A (see Impact CR-1 for detailed discussion of how these measures would avoid or minimize impacts), but due to a lack of specificity in some of the APMs and contradictory language in others, these APMs would not fully reduce the potential for Alternative PLR-1A to impact historical and/or archaeological resources to a level that is less than significant. Implementation of **Mitigation Measure CR-1** would ensure that impacts would be reduced to a less than significant level through mitigation. As it would be operated remotely and would not require substantial excavation or ground-disturbance during operation, the power line under Alternative PLR-1A would not impact cultural resources during the operation phase. Therefore, impacts under significance criteria A and B would be **less than significant with mitigation.**

Construction of Alternative PLR-1A would have similar (or slightly elevated) potential to encounter buried human remains compared to the Proposed Project's 70 kV power line. The potential would be slightly elevated under Alternative PLR-1A due to the longer length of this alignment, and due to the additional length along or near surface waterbodies. Implementation of APM CUL-4 would require that HWT and PG&E follow protocols that are consistent with those outlined in California Health and Safety Code Section 7050.5 and would ensure that human remains are not disturbed during construction of Alternative PLR-1A. Although APM CUL-4 would be applied, Alternative PLR-1A could potentially have significant impacts to human remains. Implementation of **Mitigation Measure CR-2** would reduce these impacts to a less than significant level by ensuring that the legal requirements of PRC Section 5097.98 are followed. Because Alternative PLR-1A is not anticipated to require excavation or ground-disturbing activities during operation, it would not impact human remains during the operation phase. Overall, impacts under significance criteria C would be **less than significant with mitigation.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

As described in Section 4.5.3, no CRHR-eligible archaeological resources were identified within or along the Alternative PLR-1C alignment; however, the eastern-most portion of the alignment was not subject to pedestrian survey. Additionally, only a portion of the alignment was surveyed for built environment resources and several of the built environment resources that were

identified along the alignment were not evaluated for significance. Thus, Alternative PLR-1C would result in significant impacts absent implementation of mitigation measures. As such, **Mitigation Measure CR-3** would be applied, which would require that the portions of the Alternative PLR-1C alignment not previously surveyed are subjected to a pedestrian archaeological survey and that avoidance and minimization measures are implemented. Even if the archaeological field survey does not identify eligible resources, the potential to encounter buried resources during Alternative PLR-1C construction activities remains, especially during deep excavations for pole installation. Areas most sensitive for buried cultural resources are where the Alternative PLR-1C alignment crosses Huer Huero Creek and other smaller drainages, and parallels the Estrella (MRV 1, in particular) and Salinas rivers.

APMs CUL-1, CUL-2, CUL-3, CUL-5, CUL-6, and GEN-1 would be implemented for Alternative PLR-1C, and would reduce impacts to archaeological sites (see Impact CR-1 for detailed discussion of how these measures would avoid or minimize impacts), but not to a less significant level. Implementation of **Mitigation Measure CR-1** would reduce the potential for Alternative PLR-1C to impact historical and/or archaeological resources to a level that is less than significant. As it would be operated remotely and would not require substantial excavation or ground-disturbance during operation, the power line under Alternative PLR-1C would not impact cultural resources during the operation phase. Therefore, impacts under significance criteria A and B would be **less than significant with mitigation.**

Construction of Alternative PLR-1C would have similar (or slightly elevated) potential to encounter buried human remains as the Proposed Project's 70 kV power line. The potential would be slightly elevated under Alternative PLR-1C due to the longer length of this alignment and the additional length along or near surface waterbodies. Implementation of APM CUL-4 would require that HWT and PG&E follow protocols that are consistent with those outlined in California Health and Safety Code Section 7050.5 and would ensure that human remains are not disturbed during construction of Alternative PLR-1C, but not to a less than significant level. Application of **Mitigation Measure CR-2** would ensure reduction of impacts to less than significant level. Because Alternative PLR-1C is not anticipated to require excavation or ground-disturbing activities during operation, it would not impact human remains during the operation phase. Overall, impacts under significance criteria C would be **less than significant with mitigation.**

Alternative PLR-3: Strategic Undergrounding (Both Options)

The Alternative PLR-3 alignments (Option 1 & 2) are generally covered by the Proposed Project cultural resources studies, which found no CRHR-eligible archaeological or built environment resources along this section of the Proposed Project's overhead 70 kV power line route. Alternative PLR-3, Option 2 is the exact same alignment as the Proposed Project overhead alignment, while the portion of Alternative PLR-3, Option 1 that diverges from the Proposed Project alignment follows existing roads (i.e., Wisteria Lane and Golden Hill Road). Given that the underground 70 kV power line would be installed within the roadway (i.e., underneath pavement) in this location, a pedestrian archaeological survey would not be informative. Overall, while significant archaeological resources are not known to be present within the Alternative PLR-3 alignments, there remains potential to encounter such resources during construction activities, such as trenching for underground power line installation.

APMs CUL-1, CUL-3, and GEN-1 would be implemented for Alternative PLR-3 (see Impact CR-1 for detailed discussion of how these measures would avoid or minimize impacts). Because no portion of the Alternative PLR-3 (Option 1 or 2) alignments occur within close proximity to known prehistoric or historic archaeological sites, avoidance of known sites would not be required under APM CUL-2. Tribal and archeological monitors also would not be required under APMs CUL-5 or CUL-6 as the alternative is not in proximity to streams. Implementation of APMs CUL-1, CUL-3, and GEN-1 would reduce the potential for Alternative PLR-3 to impact historical and/or archaeological resources, but not to a level that is less than significant. Implementation of **Mitigation Measure CR-1** would reduce the potential for significant impacts to a less that significant level. As it would be operated remotely and would not require substantial excavation or ground disturbance during operation, the underground power line under Alternative PLR-3 (both options) would not impact cultural resources during the operation phase. Therefore, impacts under significance criteria A and B would be **less than significant with mitigation.**

Construction of Alternative PLR-3 would have similar (or slightly elevated) potential to encounter buried human remains as the Proposed Project's 70 kV power line because Alternative PLR-3 requires additional excavation to install an underground power line even though much of the Alternative PLR-3 alignments have been disturbed in the past during road construction (i.e., portions within existing roadways). Implementation of APM CUL-4 would require that HWT and PG&E follow protocols that are consistent with those outlined in California Health and Safety Code Section 7050.5, but would not reduce this impact to a level of less than significant. Application of **Mitigation Measure CR-2** would ensure that human remains are not significantly disturbed during construction of Alternative PLR-3. Because Alternative PLR-3 is not anticipated to require excavation or ground-disturbing activities during operation, it would not impact human remains during the operation phase. Overall, impacts under significance criteria C would be **less than significant with mitigation.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

No CRHR-eligible archaeological or built environment resources were identified within the Alternative SE-1A site or surrounding area. While the location includes several structures (a barn, outbuildings, mobile home, a windmill, electrical panels, a tank, and pumps) that could be impacted by the alternative, these were found ineligible for CRHR listing (NEET West 2019). Specifically, these structures are ineligible for listing because they are all common types found throughout the region, are in a deteriorated condition, and do not have any known association with important farming operations or individuals from the 1920s through the 1970s (NEET West 2019). Even while significant archaeological resources were not identified in the Alternative SE-1A site, buried resources could still be encountered during excavation and other ground-disturbing construction activities, potentially resulting in a significant impact if proper protocols are not followed.

As such, APMs CUL-1, CUL-3, and GEN-1 would be implemented (see Impact CR-1 for detailed discussion of how these measures would avoid or minimize impacts). Because the Alternative SE-1A site does not occur in close proximity to streams or known prehistoric or historic archaeological sites, avoidance of known sites would not be required under APM CUL-2, and tribal and archeological monitors would not be required under APMs CUL-5 or CUL-6. Implementation of the applicable APMs CUL-1, CUL-3, and GEN-1 would reduce the potential for Alternative SE-1A to impact historical and/or archaeological resources, but not to a level that is less than significant. Impacts historical and/or archaeological resources would, however, be

lessened to a less than significant level through the implementation of **Mitigation Measure CR-1**. As it would be operated remotely and would not require substantial excavation or ground-disturbance during operation, the substation under Alternative SE-1A would not impact cultural resources during the operation phase. Therefore, impacts under significance criteria A and B would be **less than significant with mitigation.**

Construction of Alternative SE-1A would have similar potential to encounter buried human remains as the proposed Estrella Substation. Implementation of APM CUL-4 would require that HWT and PG&E follow protocols that are consistent with those outlined in California Health and Safety Code Section 7050.5, but would not ensure that such impacts would be reduced to a less than significant level. Implementation of **Mitigation Measure CR-2** would ensure that human remains are not significantly disturbed during construction of Alternative SE-1A. Because Alternative SE-1A is not anticipated to require excavation or ground-disturbing activities during operation, it would not impact human remains during the operation phase. Overall, impacts under significance criteria C would be **less than significant with mitigation.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

As described in Section 4.5.3, an isolated historic-era feature (metal artesian well) was identified along the Alternative SE-PLR-2 route, which was not evaluated for significance but is conservatively assumed to be CRHR-eligible. A number of built environment resources were recorded and evaluated along the route, but none of the structures were found to be eligible for listing in the CRHR. Coordination with Native American tribes indicated that the Santa Ysabel Ranch area (through which the Alternative SE-PLR-2 alignment would pass) is sensitive for cultural resources. While Native American archaeological sites were not discovered through the record search or pedestrian survey, such sites and artifacts could be discovered beneath the ground surface during excavation and grading activities for Alternative SE-PLR-2, potentially resulting in a significant cultural resources impact if proper protocols are not followed.

APMs CUL-1, CUL-2, CUL-3, CUL-6, and GEN-1 would be implemented (see Impact CR-1 for detailed discussion of how these measures would avoid or minimize impacts). Because the Alternative SE-PLR-2 route would not occur in close proximity to streams or known prehistoric archaeological sites, a tribal monitor would not be required to be present during initial ground-disturbing activities. Implementation of the APMs would reduce the potential for Alternative SE-PLR-2 to impact historical and/or archaeological resources, but not to a level that is less than significant. **Mitigation Measure CR-1** would ensure that impacts to historical and/or archaeological resources during construction of Alternative SE-PLR-2 would be reduced to a less than significant level. As it would be operated remotely and would not require substantial excavation or ground-disturbance during operation, the power line under Alternative SE-PLR-2 would not impact cultural resources during the operation phase. Therefore, impacts under significance criteria A and B would be **less than significant with mitigation.**

Construction of Alternative SE-PLR-2 would have similar (or slightly elevated) potential to encounter buried human remains as the Proposed Project's 70 kV power line despite its shorter length because it would pass through the Santa Ysabel Ranch area, which has been identified as sensitive for cultural resources by consulting tribes. Implementation of APM CUL-4 would require that HWT and PG&E follow protocols that are consistent with those outlined in California Health and Safety Code Section 7050.5, but would not ensure that human remains are not significantly disturbed during construction of Alternative SE-PLR-2. Implementation of

Mitigation Measure CR-2 would provide a framework for achieving a less than significant impact to human remains. Because Alternative SE-PLR-2 is not anticipated to require excavation or ground-disturbing activities during operation, it would not impact human remains during the operation phase. Overall, impacts under significance criteria C would be **less than significant with mitigation.**

Alternative BS-2: Battery Storage to Address the Distribution Objective

As described in Chapter 3, *Alternatives Description,* potential FTM battery storage sites are identified under Alternative BS-2 for illustrative purposes for this DEIR. FTM battery storage facilities could be constructed at the example FTM sites (1 through 8) or at other sites identified in the future. Effects to cultural resources from FTM BESSs sited at the example sites are discussed here for illustrative purposes.

With the exception of FTM Site 8, no previously recorded resources were identified through CCIC records searches at the illustrative FTM sites examined as part of the EIR analysis under Alternative BS-2. The resource identified at FTM Site 8 was the existing power station, which had previously been evaluated as not eligible for listing in the CRHR. FTM Sites 3 and 5 were covered by previous archaeological surveys, with negative findings at those locations. FTM Site 6 is the same site as the Alternative SE-1A Templeton Substation Expansion Site; thus, it is covered by the field surveys conducted for that alternative, which identified no significant resources on the site. None of the other potential FTM sites (1, 2, 4, 7, and 8) have been field-surveyed for archaeological or built environment resources. Aerial imagery shows the potential FTM sites (with the exception of FTM Sites 7 and 8) to be vacant and largely within existing developed areas of Paso Robles and Atascadero; none of the FTM sites are within 50 feet of Dry Creek, Huer Huero Creek, Salinas River, or Estrella River. Because not all of the FTM sites have been subject to field surveys, Alternative BS-2 could result in adverse impacts to cultural resources. Like the Proposed Project, construction of the FTM BESSs under Alternative BS-2 would have potential to encounter buried human remains. Adherence to California Health and Safety Code Section 7050.5 and PRC Section 5097.98 would ensure that human remains are not significantly disturbed during construction of Alternative BS-2.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

This alternative would involve the installation of BTM solar or battery storage units at properties by individual program participants. The City of Paso Robles has a robust historic preservation program that includes a list of built environment properties that meet NRHP/CRHR eligibility criteria, a Historic Preservation Ordinance, and provisions set forth in the municipal code that require permitting of alterations to historic properties (Historic Resources Group 2010). It is possible that some owners of historic buildings may elect to install solar or battery units as part of the program, which would require permitting by the City. It would be the responsibility of the property owner and City to determine the compatibility and potential effects of the unit

installation to the historic resource through the permit evaluation process. This includes any potential ground disturbance that might impact surface or buried archaeological resources.

In general, the installation of individual BTM solar and BESS facilities would have relatively minimal potential to substantially affect significant cultural resources, including human remains, due to their small individual sizes and the fact that they would be installed on or within existing buildings (generally assumed to involve minimal ground-disturbance) and/or within existing properties.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

4.6 Energy

4.6.1 Introduction

This section presents the environmental setting and potential impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives related to energy. This may include fuel and electricity consumption during construction and operation, as well as consistency with State or local plans for renewable energy or energy efficiency. For setting and impact discussions related to GHG emissions, refer to Section 4.8 of this DEIR.

4.6.2 Regulatory Setting

Federal Laws, Regulations, and Policies

Energy Policy Act

The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. This act included establishing energy-related tax incentives for energy efficiency and conservation; renewable energy; oil and gas production; and electricity generation and transmission. The act also established increased amounts of renewable fuel (e.g., ethanol or biodiesel) to be used in gasoline sold in the U.S., provisions to increase oil and natural gas production on federally owned lands, and federal reliability standards regulating the electrical grid.

Corporate Average Fuel Economy and Greenhouse Gas Emissions Standards

The federal government is responsible for establishing regulations to improve the efficiency of motor vehicles. The NHTSA Corporate Average Fuel Economy (CAFE) standards regulate how far vehicles must travel on a gallon of fuel. NHTSA sets CAFE standards for passenger cars and for light trucks (collectively, light-duty vehicles), and separately sets fuel consumption standards for medium- and heavy-duty trucks and engines (NHTSA 2020). Jointly with CAFE, NHTSA also regulates GHG emissions from vehicles of various weight classes.

The CAFE and GHG emissions standards have been rolled out in multiple phases. On August 9, 2011, USEPA and the NHTSA announced standards to reduce GHG emissions and improve fuel efficiency for heavy-duty trucks and buses. In August 2016, USEPA and the NHTSA jointly finalized Phase 2 Heavy-Duty National Program standards to reduce GHG emissions and improve fuel efficiency of medium- and heavy-duty vehicles for model year 2018 and beyond (USEPA 2020a). In April 2020, NHTSA and USEPA amended the CAFE and GHG emissions standards for passenger cars and light trucks and established new less stringent standards, covering model years 2021 through 2026 (USEPA 2020b).

State Laws, Regulations, and Policies

California Integrated Energy Policy

Senate Bill 1389, passed in 2002, requires the California Energy Commission (CEC) to prepare an Integrated Energy Policy Report (IEPR) for the governor and legislature every 2 years. The report

analyzes data and provides policy recommendations on trends and issues concerning electricity and natural gas, transportation, energy efficiency, renewable energy, and public interest energy research (CEC 2019a). Volume II of the 2018 IEPR Update describes opportunities to improve energy efficiency; integrate more renewable energy into the grid; improve energy forecasting capabilities; enhance resiliency to climate change, and ensure that reliability and the benefits of clean energy reach all Californians (CEC 2019b).

Renewables Portfolio Standard

California's Renewables Portfolio Standard (RPS), updated in 2018 under Senate Bill 100, sets a goal of obtaining 100 percent zero-carbon electricity for the State by 2045. Interim targets are established to achieve 33 percent electricity produced from renewable sources by 2020 and 50 percent by 2026.

Climate Change Scoping Plan

The Climate Change Scoping Plan details the State's strategy for achieving its GHG reduction targets and is discussed in greater detail in Section 4.8, "Greenhouse Gas Emissions." The energy sector is one of the key sectors targeted in the Plan, which has the following goals and actions related to energy that may apply to the Proposed Project, reasonably foreseeable distribution components, and alternatives (CARB 2017):

- Achieve sector-wide, publicly-owned utility, and load-serving entity specific GHG reduction planning targets set by the State through Integrated Resource Planning.
- Reduce fossil fuel use.
- Reduce energy demand.
- Reduce dependence on fossil natural gas.

4.6.3 Environmental Setting

Energy Resources and Consumption

California has extensive energy resources, including an abundant supply of crude oil and high production of conventional hydroelectric power. California also leads the nation in electricity generation from renewable sources (e.g., solar, geothermal, and biomass resources) (U.S. Energy Information Administration [EIA] 2019). California has the second highest total energy consumption in the United States but one of the lowest energy consumption rates per capita (48th in 2016) due to its mild climate and energy efficiency programs (EIA 2019). A comparison of California's energy-consuming end-use sectors indicates that the transportation sector is the greatest energy consumer, by approximately two to three times compared to the other end-use sectors (e.g., industrial, commercial, and residential) (EIA 2019). Energy produced in San Luis Obispo County comes from a range of sources including solar, geothermal, hydroelectric, nuclear, landfill gas, and oil and gas fields.

Electric Service Providers

The Proposed Project, reasonably foreseeable distribution components, and alternatives areas are served by PG&E. Table 4.6-1 provides a breakdown of PG&E's energy sources as well as the breakdown for California as a whole.

Table 4.6-1. PG&E's 2018 Energy Mix

Energy Sources	Power Mix (Percentage)	
	PG&E	**California**
Eligible Renewable	39	31
Coal	0	3
Large Hydroelectric	13	11
Natural Gas	15	35
Nuclear	34	9
Unspecified Power[1]	0	11
Total	**100**	**100**

Notes:

1. "Unspecified Power" is defined as electricity from transactions that are not traceable to specific generation sources.

Sources: CEC 2019c

As shown in Table 4.6-1, PG&E obtains electricity from a variety of sources, including a significant percentage (over 30 percent) from renewables, which is slightly higher than the State as a whole. PG&E is on target to meet the interim RPS goals.

4.6.4 Impact Analysis

Methodology

The impact analysis used basic assumptions regarding construction-related fossil fuel use and operational energy requirements. Construction-related fossil fuel use was estimated based on the anticipated construction equipment use, vehicle trips, and helicopter use. The CARB In-Use Off-Road Diesel Emission Factors model was used to estimate the total amount of diesel fuel use, assuming the following:

- construction equipment less than 100 horsepower consumed 0.408 pounds of fuel per horsepower-hour, and
- construction equipment greater than 100 horsepower consumed 0.367 pounds of fuel per horsepower-hour.

EMFAC was used to estimate the gasoline and diesel fuel used by on-road vehicles. Jet fuel use by helicopters was estimated using fuel consumption estimates using the AEDT methodology. Unless electrified equipment tapped into the power grid is used, electricity use during construction of the Proposed Project, reasonably foreseeable distribution components, and alternatives was assumed to be minimal.

During operation of the Proposed Project, reasonably foreseeable distribution components, and alternatives, there will be infrequent fossil fuel use associated with maintenance and inspection trips since the facilities will be operated remotely. Some of the equipment associated with the Proposed Project, reasonably foreseeable distribution components, and alternatives will use electricity to operate. Other operational energy uses, such as the transmission line distribution losses and energy used to power the equipment, control and HVAC systems as part of the project, are typically assessed at the larger corporate entity level resulting from the difference between generated and delivered energy. There was not sufficient detail available at this time to estimate the distribution loss and other energy use at the individual infrastructure level (e.g., at the substation-level, transmission-structure-level) for the Proposed Project, reasonably foreseeable distribution components, and alternatives. For these reasons, these are not estimated at this time and would be consistent with typical losses for utilities.

Criteria for Determining Significance

For the purposes of this analysis, the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in a significant impact to energy if they would:

A. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

B. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Environmental Impacts

Proposed Project

Impact ENR-1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation – *Less than Significant*

Construction

Direct energy use would include the consumption of petroleum (e.g., diesel, gasoline, and jet fuel) for operation of construction vehicles and equipment, as well as consumption of electricity for alternatively-powered equipment. Table 4.6-2 shows the estimated fuel consumption associated with Proposed Project construction based on the proposed construction schedule and equipment use.

Table 4.6-2. Proposed Project Estimated Construction Fuel Consumption

Activity Fuel Consumption	Gasoline (gallons)	Diesel (gallons)	Jet A Fuel (gallons)
Construction Activity On-Road Vehicles	6,530	15,449	-
Construction Activity Off-Road Equipment	-	183,523	-
Helicopters	-	-	180,671
Total for Construction	**6,530**	**198,972**	**180,671**

As shown in Table 4.6-2, construction of the Proposed Project would require about equal amounts of diesel and jet fuel (for operation of helicopters), at just under 200,000 gallons each (*see* Appendix C of this DEIR for supporting calculations). Gasoline use would be primarily related to worker commutes to and from the construction site and is estimated at 6,530 gallons.

Proposed Project construction would use equipment similar to other transmission line and substation projects; therefore, there is no reason to assume that the Proposed Project's construction-related energy use would be excessive or wasteful. For this reason, construction-related impacts on energy use would be considered less than significant. APMs AIR-1 through AIR-3 and Mitigation Measure AQ-1 would further reduce impacts by requiring proper maintenance of equipment and vehicles, utilization of newer equipment and vehicles where feasible, and shutting off engines when not in use (see Section 4.3, "Air Quality"). These measures would further ensure that the Proposed Project would not result in wasteful use of fossil fuels during construction. As a result, this impact would be **less than significant**.

Operation

Proposed Project operation would not require substantial fossil fuel use outside of occasional maintenance and inspection activities. As described in Chapter 2, *Project Description,* the Estrella Substation would be inspected monthly and the power line would be inspected annually, with maintenance and repairs being conducted on an as-needed basis. All Proposed Project components would be operated remotely. As such, fossil fuel use would be limited to vehicles and helicopters used in inspecting Proposed Project facilities and any equipment that may be used to conduct infrequent repairs and maintenance.

In general, there is no reason to suggest that any transmission line losses or electricity use for operation of the Proposed Project facilities would be any different than similarly designed transmission lines and substations. The Proposed Project is designed to ensure efficient and reliable electricity transmission for the Paso Robles area to meet current and future planned electricity needs. Therefore, operation of the Proposed Project would not result in the wasteful, inefficient, or unnecessary consumption of energy. This impact would be **less than significant**.

Impact ENR-2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency – *Less than Significant*

The Proposed Project would not conflict with or obstruct any state or local renewable energy or energy efficiency plans. As described in Chapter 2, *Project Description,* the Proposed Project would improve the reliability and accessibility of electricity for the Paso Robles area, which is

consistent with CEC goals in the IEPR. Specifically, the Proposed Project would reduce susceptibility of the Paso Robles area to power losses due to a transmission line failure or other N-1 event. With buildout of the reasonably foreseeable distribution components (see below), the Proposed Project also would improve reliability for customers due to long feeders and would allow PG&E to meet projected future increased electricity demands.

While the Proposed Project would not reduce fossil fuel reliance or specifically increase or encourage renewable energy generation, it would not impede future use of renewable energy sources. As such, the Proposed Project would not impede progress toward RPS goals or implementation of energy efficiency programs. Therefore, this impact would be **less than significant.**

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

Construction of the reasonably foreseeable distribution components would involve similar processes and equipment as the Proposed Project, albeit on a much smaller scale. Construction of the 21 kV distribution facilities within the Estrella Substation would involve deliveries of equipment and materials, but it would not involve ground-disturbance since the substation will already have been built. Installation of the new distribution line segments would require some vegetation clearing and grading to establish work areas and excavation for distribution pole installations, although this would be on a substantially smaller scale than the Proposed Project's 70 kV power line. As such, construction of the reasonably foreseeable distribution components would require far less energy use than the Proposed Project, both in terms of direct (e.g., fuel) and indirect energy use. For this reason, construction-related impacts on energy use would be considered less than significant. APMs AIR-1 through AIR-3 and Mitigation Measure AQ-1 would further reduce impacts for the reasonably foreseeable distribution components, serving to prevent wasteful or unnecessary energy use during construction. Ultimate buildout of the substation (e.g., installation of additional transformers, breakers, switches, etc.) would require some ground disturbance for constructing the equipment foundations and substation wiring, which would use limited amounts of energy from operation of construction equipment. Construction activities and energy use associated with any additional distribution feeders and/or 70 kV lines that could be supported through ultimate substation buildout are speculative at this time as the routes of these lines are not known.

Once constructed, the distribution and ultimate substation buildout components would be operated remotely and fossil fuel use would be limited to vehicles and equipment involved in periodic inspections, maintenance, and repairs. Therefore, impacts under significance criterion A would be **less than significant.**

Build out of the reasonably foreseeable distribution components and any additional infrastructure facilitated through ultimate substation buildout would both improve reliability for customers and allow PG&E to efficiently serve future anticipated load growth in the Paso Robles area. In this regard, the distribution components would improve the reliability and accessibility of electricity for the Paso Robles area, which is consistent with CEC goals in the IEPR. While the reasonably foreseeable distribution components would not specifically increase or encourage renewable energy generation, it would not impede use of renewable energy sources or

otherwise hinder progress toward RPS goals or implementation of energy efficiency programs. Therefore, impacts under significance criterion B would be **less than significant.**

Alternatives

No Project Alternative

Under the No Project Alternative, no impacts related to energy would occur. No new substation or new/reconductored power line would be constructed; therefore, there would be no construction-related energy use or potential for increased energy use during maintenance and operations. Likewise, there would be no potential to conflict with or obstruct a state or local plan for renewable energy or energy efficiency. As a result, **no impact** would occur under either significance criteria A or B.

Alternative SS-1: Bonel Ranch Substation Site

Alternative SS-1 would have slightly higher potential for energy consumption in the form of fuel use compared to the proposed Estrella Substation. The substation located at the Bonel Ranch site would involve a slightly longer 230 kV interconnection and therefore would require approximately one additional month of construction. Additionally, due to the Bonel Ranch Substation Site's location adjacent to the Estrella River, it is possible that unsuitable soils could be encountered during construction that could require greater excavation, off-haul, and/or import of soils than the Proposed Project (although geotechnical studies have not been completed for the Alternative SS-1 site). This would only slightly increase the use of fossil fuels during construction but is still a reasonable and efficient use of fossil fuels. Apart from these factors, the substation at the Alternative SS-1 site would be largely similar to the Estrella Substation and would involve similar construction processes and indirect energy use (e.g., embodied energy in materials). For these reasons, construction-related impacts on energy use would be considered less than significant. APMs AIR-1 through AIR-3 and Mitigation Measure AQ-1 would serve to further prevent wasteful or unnecessary energy use during construction.

Once constructed, the substation at the Alternative SS-1 site would be operated remotely and fossil fuel use would be limited to vehicles and equipment involved in periodic inspections, maintenance, and repairs. This energy use during the operation phase would be largely similar to the Proposed Project's operational energy use and would not be significant. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative SS-1, when paired with Alternative PLR-1C, would provide the same functions as the Proposed Project in terms of improving the reliability and accessibility of electricity for customers in the Paso Robles area, which is consistent with CEC goals in the IEPR. While Alternative SS-1 would not specifically reduce fossil fuel reliance and/or increase or encourage renewable energy generation, it would not impede use of renewable energy sources or otherwise hinder progress toward RPS goals or implementation of energy efficiency programs. Therefore, impacts under significance criterion B would be **less than significant.**

Alternative PLR-1A: Estrella Route to Estrella Substation

Due to its longer length (approximately 6.5 miles longer) and duration of construction (16 months longer), Alternative PLR-1A would involve greater construction-related energy use (e.g., fuel consumption) compared to the Proposed Project. However, while construction of the

Alternative PLR-1A power line alignment would require greater energy use than the Proposed Project, this would still represent a reasonable use of fossil fuels considering that the new power line would be meeting a critical transmission system need. Therefore, construction-related impacts on energy use would be considered less than significant. Additionally, APMs AIR-1 through AIR-3 and Mitigation Measure AQ-1 would serve to further prevent wasteful or unnecessary energy use during construction.

Operation and maintenance of Alternative PLR-1A would involve a similar number and frequency of vehicle trips compared to the Proposed Project's 70 kV power line. The power line under Alternative PLR-1A would be operated remotely and fossil fuel use would be limited to vehicles and equipment involved in periodic inspections, maintenance, and repairs, which would not be significant. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative PLR-1A, when paired with the Estrella Substation, would provide the same functions as the Proposed Project in terms of improving the reliability and accessibility of electricity for customers in the Paso Robles area, which is consistent with CEC goals in the IEPR. While Alternative PLR-1A would not specifically reduce fossil fuel reliance and/or increase or encourage renewable energy generation, it would not impede use of renewable energy sources or otherwise hinder progress toward RPS goals or implementation of energy efficiency programs. Therefore, impacts under significance criterion B would be **less than significant.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C would be similar in length to Alternative PLR-1A and would require a similarly extended construction schedule compared to the Proposed Project. As such, it would involve a similar level of increased construction-related energy use (e.g., fuel consumption). However, while construction of the Alternative PLR-1C power line alignment would require greater energy use than the Proposed Project, this would still represent a reasonable use of fossil fuels considering that the new power line would be meeting a critical transmission system need. Therefore, construction-related impacts on energy use would be considered less than significant. APMs AIR-1 through AIR-3 and Mitigation Measure AQ-1 would further prevent wasteful or unnecessary energy use during construction.

Operation and maintenance of Alternative PLR-1C would involve a similar number and frequency of vehicle trips compared to the Proposed Project's 70 kV power line. The power line under Alternative PLR-1C would be operated remotely and fossil fuel use would be limited to vehicles and equipment involved in periodic inspections, maintenance, and repairs, which would not be significant. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative PLR-1C, when paired with the substation under Alternative SS-1, would provide the same functions as the Proposed Project in terms of improving the reliability and accessibility of electricity for customers in the Paso Robles area, which is consistent with CEC goals in the IEPR. While Alternative PLR-1C would not specifically reduce fossil fuel reliance and/or increase or encourage renewable energy generation, it would not impede use of renewable energy sources or otherwise hinder progress toward RPS goals or implementation of energy efficiency programs. Therefore, impacts under significance criterion B would be **less than significant.**

Alternative PLR-3: Strategic Undergrounding (Option 1 & 2)

Alternative PLR-3 would involve a longer construction duration compared to the same segment of the Proposed Project's 70kV powerline and would involve additional excavation (e.g., trenching) compared to the Proposed Project. The type of construction equipment used for trenching the power line underground is different from equipment used to construct overhead lines, but generally the underground power line construction would be expected to use increased amounts of fuel and energy. However, even if the construction fossil fuel use increased, it is unlikely that this would result in wasteful or inefficient energy use. Therefore, construction-related impacts on energy use would be considered less than significant. Like the Proposed Project, APMs AIR-1 through AIR-3 and Mitigation Measure AQ-1 would further prevent wasteful or unnecessary energy use during construction.

Operation and maintenance of Alternative PLR-3 would involve a similar number and frequency of vehicle trips compared to the Proposed Project's 70 kV power line. The power line under Alternative PLR-3 would be operated remotely and fossil fuel use would be limited to vehicles and equipment involved in periodic inspections, maintenance, and repairs, which would not be significant. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative PLR-3 would provide the same functions as the Proposed Project in terms of improving the reliability and accessibility of electricity for customers in the Paso Robles area, which is consistent with CEC goals in the IEPR. While Alternative PLR-3 would not specifically reduce fossil fuel reliance and/or increase or encourage renewable energy generation, it would not impede use of renewable energy sources or otherwise hinder progress toward RPS goals or implementation of energy efficiency programs. Therefore, impacts under significance criterion B would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

Similar to Alternative SS-1, construction of Alternative SE-1A would involve slightly greater energy use (e.g., fuel) compared to the proposed Estrella Substation due to the slightly longer 230 kV interconnection and extended construction schedule (one month). Although geotechnical studies have not been completed for the Templeton Substation Expansion Site, it is possible that soft/unsuitable soils could be encountered during construction, requiring greater excavation, off-haul, and/or import of soils (and associated energy use) than the Proposed Project. This would only slightly increase the use of fossil fuels during construction and is still a reasonable and efficient use of fossil fuels. Therefore, construction-related impacts on energy use would be considered less than significant. Like the Proposed Project, APMs AIR-1 through AIR-3 and Mitigation Measure AQ-1 would further prevent wasteful or unnecessary energy use during construction.

Once constructed, the substation at the Alternative SE-1A site would be operated remotely and fossil fuel use would be limited to vehicles and equipment involved in periodic inspections, maintenance, and repairs. This energy use during the operation phase would be largely similar to the Proposed Project's operational energy use and would not be significant. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative SE-1A, when paired with Alternative SE-PLR-2, would provide the same functions as the Proposed Project in terms of improving the reliability and accessibility of electricity for

customers in the Paso Robles area, which is consistent with CEC goals in the IEPR. While Alternative SE-1A would not specifically reduce fossil fuel reliance and/or increase or encourage renewable energy generation, it would not impede use of renewable energy sources or otherwise hinder progress toward RPS goals or implementation of energy efficiency programs. Therefore, impacts under significance criterion B would be **less than significant.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Alternative SE-PLR-2 would be approximately 4.8 miles shorter than the Proposed Project's 70 kV power line and would require a reduced construction schedule (9 months shorter). As such, it would involve reduced construction-related energy use (e.g., fuel consumption) due to the reduced number of poles to install and reduced construction activity. Regardless, like the Proposed Project, construction of Alternative SE-PLR-2 would represent a reasonable use of fossil fuels. Therefore, construction-related impacts on energy use would be considered less than significant. APMs AIR-1 through AIR-3 and Mitigation Measure AQ-1 would further prevent wasteful or unnecessary energy use during construction.

Operation and maintenance of Alternative SE-PLR-2 would involve a similar number and frequency of vehicle trips compared to the Proposed Project's 70 kV power line. The power line under Alternative SE-PLR-2 would be operated remotely and fossil fuel use would be limited to vehicles and equipment involved in periodic inspections, maintenance, and repairs, which would not be significant. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative SE-PLR-2, when paired with the substation under Alternative SE-1A, would provide the same functions as the Proposed Project in terms of improving the reliability and accessibility of electricity for customers in the Paso Robles area, which is consistent with CEC goals in the IEPR. While Alternative SE-PLR-2 would not specifically reduce fossil fuel reliance and/or increase or encourage renewable energy generation, it would not impede use of renewable energy sources or otherwise hinder progress toward RPS goals or implementation of energy efficiency programs. Therefore, impacts under significance criterion B would be **less than significant.**

Alternative BS-2: Battery Storage to Address the Distribution Objective

Although the sizes of FTM BESSs under Alternative BS-2 are not yet known and would depend on future load growth in the Paso Robles area, the energy use associated with BESS construction would be similar or likely reduced compared to the Estrella Substation. With the exception of a possible flow battery at example FTM Site 6 (i.e., Templeton Substation), individual BESSs would likely be substantially smaller than the substation and would involve less earthwork and heavy equipment operation. Once constructed, BESSs under Alternative BS-2 would be operated remotely and fossil fuel use would be limited to vehicles and equipment involved in periodic inspections, maintenance, and repairs.

In many ways, Alternative BS-2 would serve to implement State plans for renewable energy and energy efficiency. The use of battery-stored power during high demand periods would reduce the need for higher carbon intensity sources of electricity generation throughout the electricity grid such as the use of peaker plants, which are fossil-fueled based. This would result in an overall energy efficiency savings as excess energy produced would be stored and released back

to the grid or the end users as needed to avoid the need for less energy efficient sources during peak periods.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

Construction activities under Alternative BS-3 would include deliveries of individual BESS units to customers' properties, installation of the units on-site, and wiring work to connect the BESS to existing electrical systems. BESS units for larger commercial properties could be heavy and may require larger/specialized trucks for delivery, and may require use of a small crane for installation. These activities would be considerably smaller in scale compared to the Proposed Project and would therefore result in lower energy consumption. Depending on the size of solar power installations, it is unknown how the construction energy use would compare to the Proposed Project. It is unlikely given the anticipated size of solar panel and battery installations that energy use would be substantial when compared to the Proposed Project. Once installed, BESS and solar facilities would require minimal operation and maintenance. The energy use during construction and operation of individual BTM facilities under Alternative BS-3 would not be expected to be wasteful, inefficient, or unnecessary.

Like Alternative BS-2, Alternative BS-3 would largely function to implement the State's plans with respect to renewable energy and energy efficiency. Deployment of the BTM BESSs would result in an overall energy efficiency savings as excess energy produced would be stored and released back to the grid or the end users as needed to avoid the need for less energy efficient sources during peak periods. Likewise, BTM solar units would generate renewable energy that may be stored on-site or discharged to the grid, potentially decreasing the amount of new (fossil-fuel-based) generating facilities needed in the future to supply the local areas' energy needs. As such, Alternative BS-3 would comport with the IEPR, RPS, and Climate Change Scoping Plan.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

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4.7 Geology, Soils, Seismicity, and Paleontological Resources

4.7.1 Introduction

This section evaluates impacts related to geology, soils, seismicity, and paleontological resources from the Proposed Project, reasonably foreseeable distribution components, and alternatives. Paleontological resources are the fossil remains of prehistoric flora and fauna, or traces of evidence of the existence of prehistoric flora and fauna.

4.7.2 Regulatory Setting

Federal Laws, Regulations, and Policies

National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) created the National Earthquake Hazards Reduction Program (NEHRP), establishing a long-term earthquake risk reduction program to better understand, predict, and mitigate risks associated with seismic events. Four federal agencies are responsible for coordinating activities under NEHRP: USGS; National Science Foundation (NSF); Federal Emergency Management Agency (FEMA); and National Institute of Standards and Technology (NIST). Since its inception, NEHRP has shifted its focus from earthquake prediction to hazard reduction. The current program objectives are as follows:

1. Developing effective measures to reduce earthquake hazards;

2. Promoting the adoption of earthquake hazard reduction activities by federal, state, and local governments, national building standards and model building code organizations, engineers, architects, building owners, and others who play a role in planning and constructing buildings, bridges, structures, and critical infrastructure or “lifelines”;

3. Improving the basic understanding of earthquakes and their effects on people and infrastructure through interdisciplinary research involving engineering, natural sciences, and social, economic, and decision sciences; and

4. Developing and maintaining the USGS seismic monitoring system (Advanced National Seismic System); the NSF-funded project aimed at improving materials, designs, and construction techniques (George E. Brown Jr. Network for Earthquake Engineering Simulation); and the global earthquake monitoring network (Global Seismic Network).

Implementation of NEHRP objectives is accomplished primarily through original research, publications, and recommendations and guidelines for state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

State Laws, Regulations, and Policies

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (PRC Section 2621 et seq.) was passed to reduce the risk to life and property from surface faulting in California. The Alquist-Priolo Act prohibits construction of most types of structures intended for human occupancy on the surface traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). The Alquist-Priolo Act defines criteria for identifying active faults, giving legal weight to terms, such as "active," and establishes a process for reviewing building proposals in and adjacent to earthquake fault zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are "sufficiently active" and "well defined." Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

Because the Alquist-Priolo Act does not prohibit construction of utility infrastructure, such as substations or powerlines, and the Proposed Project does not involve the development of structures intended for human occupancy; regulatory policies are not applicable to the Proposed Project.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (PRC Sections 2690-2699.6) establishes statewide minimum public safety standards for mitigation of earthquake hazards. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act. Under the Seismic Hazards Mapping Act, the State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other seismic hazards, and cities and counties are required to regulate development within mapped seismic hazard zones. In addition, the act addresses not only seismically induced hazards but also expansive soils, settlement, and slope stability. Under the Seismic Hazards Mapping Act, cities and counties may withhold the development permits for a site within seismic hazard zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

California Building Code and International Building Code

Title 24 of the CCR is also known as the California Building Standards Code (CBC). The CBC specifies standards for geologic and seismic hazards other than surface faulting. These codes are administered and updated by the California Building Standards Commission. The CBC specifies criteria for open excavation, seismic design, and load-bearing capacity directly related to construction in California.

The 2012 International Building Code (IBC) (known as the Uniform Building Code prior to 2000) was developed by the International Conference of Building Officials (ICBO) and is used by most states, including California, as well as local jurisdictions to set basic standards for acceptable design of structures and facilities. The IBC provides information on criteria for seismic design,

construction, and load-bearing capacity associated with various buildings and other structures and features. Additionally, the IBC identifies design and construction requirements for addressing and mitigating potential geologic hazards. New construction generally must meet the requirements of the most recent version of the IBC.

California Public Utilities Commission General Order 95

CPUC G.O. 95 provides general standards for design and construction of overhead electric transmission and distribution lines (CPUC 2015). 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.

California Public Utilities Commission General Order 174

CPUC G.O. 174, adopted in 2012, provides rules for electric utility substations, including minimum requirements for substation design and construction and for an inspection program for substations. Specifically, G.O. 174 states that:

> "Substations shall be designed, constructed and maintained for their intended use, regard being given to the conditions under which they are to be operated, to promote the safety of workers and the public and enable adequacy of service. Design, construction and maintenance should be performed in accordance with accepted good practices for the given local conditions known at the time by those responsible."

G.O. 174 also specifies that operators of substations must inspect their facilities as frequently as necessary to ensure the safe operation of equipment and components and maintain records of these inspections.

Public Resources Code Section 5097.5

PRC Section 5097.5 defines as a misdemeanor any unauthorized disturbance or removal of a historic or prehistoric ruin, burial ground, or archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions or other archaeological, paleontological or historical feature on public land and specifies that state agencies may undertake surveys, excavations, or other operations as necessary on state lands to preserve or record paleontological resources.

4.7.3 Environmental Setting

Geology, Soils, and Seismicity

Regional Setting

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. 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) (McLaren and Sauvage 2001).

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 Proposed 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 to southeast to also include the Carrizo Plains area. Granitic and crystalline metamorphic basement rocks underlie the sedimentary formations in this domain (McLaren and Sauvage 2001). 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.

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 (McLaren and Sauvage 2001). 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.

Stratigraphic Units

Stratigraphy is the branch of geology which describes the formation, composition, sequence, and properties of stratified (sedimentary) rocks. Major stratigraphic or geologic units in and around the Proposed Project, reasonably foreseeable distribution components, and alternatives are shown on Figure 4.7-1. As shown on Figure 4.7-1, areas surrounding the Proposed Project, reasonably foreseeable distribution components, and most of the alternative substation sites and alignments are entirely underlain by quaternary deposits, including:

- the Paso Robles Formation (Qtp);
- modern alluvial gravel and sand deposits of stream channel (Qg) underlying the Salinas River, Huer Huero 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).

Bedrock beneath the alluvial sediments is mapped as the Paso Robles Formation (Qtp). The Paso Robles Formation is 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. The formation was deposited in alluvial fan, flood plain, and lake depositional environments. Seashells are reported in some well logs near the base of the 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 (California Department of Water Resources [DWR] 2016a,b). 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 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 2016a,b).

Soils

Soils are comprised of particles known as sand, silt, and clay, where a loamy soil is considered an equal balance of all components. Soil types provide background for engineering constraints, such as erosion and runoff potential, corrosion risks, and various behaviors that effect structures, such as expansion and settlement. 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 (NEET West and PG&E 2017).

Geotechnical investigations were conducted for the Estrella Substation and the proposed 70 kV power line alignments (refer to Appendix L and M of the PEA)[1], which identified and evaluated the types of soils underlying the Proposed Project components. The geotechnical investigation involved soil drill boring to depths between 30 to 45 feet, and bedrock was not encountered at any of the boring sites drilled. Soil borings at the Estrella Substation site 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 the investigations 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 Huer Huero Creek channel on the 70 kV power line route tended to be

[1] Appendices of the PEA can be accessed at https://www.cpuc.ca.gov/environment/info/horizonh2o/estrella/docs/Revised_PEAAppendicesOnly_May2017.pdf

less dense than other alluvial soils. Soils along the reconductoring segment were underlain by stiff to hard lean clay and sandy lean clay (NEET West and PG&E 2017).

Overall, approximately 50 percent of proposed Estrella Substation site and approximately 53 percent of the proposed 70 kV power line route are comprised of Arbuckle or Arbuckle complex soils (Arbuckle-Positas or Arbuckle-San Ysidro). The next most prevalent soil assemblage is Nacimiento complex soils, which make up approximately 50 percent of the Estrella Substation site (Nacimiento-Los Osos) and approximately 19 percent of the 70 kV power line route (Nacimiento-Ayar and Nacimiento-Los Osos). Handford and Greenfield soils make up approximately 9 percent of the 70 kV power line route, with the remaining 19 percent of the power line route comprised of several other soils (NEET West and PG&E 2017). The most common soil complexes in the area of the Proposed Project and alternatives as a whole are Arbuckle-San Ysidro, Nacimiento-Los Osos, Arbuckle-Positas, and Linne-Calodo (U.S. Department of Agriculture, Natural Resources Conservation Service [NRCS] 2020). Table 4.7-1 provides the primary characteristics of soil types found in the Proposed Project, reasonably foreseeable distribution components, and alternatives vicinity.

Table 4.7-1. Soil Types and Characteristics

Soil Type	Characteristics
Arbuckle	Very deep, well-drained, sandy loam formed in alluvial materials from mainly conglomerate and metasedimentary rocks occurring on low terraces.
Positas	Deep and very deep, moderately well-drained, gravelly loam formed in alluvial material from mixed rock sources typically occurring on stream terraces.
San Ysidro	Deep, moderately well-drained, fine sandy loam that are formed in alluvium from sedimentary rocks occurring on old, low terraces.
Nacimiento	Moderately deep, well-drained, silty clay loam formed in material weathered from calcareous shale and sandstone occurring on rolling uplands.
Los Osos	Moderately deep, well-drained loam that formed in material weathered from sandstone and shale occurring on uplands.
Diablo	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	Deep or very deep, well-drained, silty clay formed from weathered, decomposed alkaline shale and sandstone material often associated with rolling hills.

Soil Type	Characteristics
Balcom	Moderately deep and well-drained loam formed from soft, calcareous shale and sandstone substrates typically occurring on hills.
Calleguas	Typically, shallow, well-drained, clay loam occurring on exposed and eroded upland slopes and hills and primarily formed from weathered sedimentary rock.
Hanford	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	Deep, well-drained, coarse sandy loam formed from alluvium materials derived from granitic and mixed rock sources occurring in alluvial fans and terraces.
Linne	Moderately deep, well-drained, clay loam that consist largely of weathered soft shale and sandstone materials and typically on mountainous uplands and foothills.
Calodo	Shallow, well-drained, clay loam that consist of calcareous shale and sandstone material occurring in uplands.
Metz	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	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.

Source: NEET West and PG&E 2017

Seismicity

Seismicity refers to the occurrence and frequency of earthquakes in a region. An earthquake is a sudden and violent shaking of the ground as a result of movements within the earth's crust or volcanic action. One of the primary causes of earthquakes is the collision of tectonic plates, which occurs at the location of faults. Earthquake damage generally occurs 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 the area very near the fault. Other seismic hazards include earthquake-triggered landslides and tsunamis (NEET West and PG&E 2017).

Faults

As described in Section 4.7.2, 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.

The major fault zones in the region include the San Andreas Fault, Rinconada Fault, Huerhuero Fault, and Oceanic Fault, each of which is described further below. The structural trend in the region 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. Figure 4.7-2 shows a regional map of fault zones within the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives. As shown on Figure 4.7-2, only the Rinconada Fault and the Huer Huero Fault occur in relative proximity to the Proposed Project, reasonably foreseeable distribution components, or alternatives.

San Andreas Fault

The San Andreas Fault zone is located approximately 18 miles east of the Proposed Project 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 in the area (City of Paso Robles 2003). The highest recorded magnitude earthquake on the San Andreas Fault in San Luis Obispo County was a magnitude 6.0 earthquake recorded near Shandon, CA, located approximately 17 miles east of Paso Robles, in 2004 (USGS 2020). The 2002 Probabilistic Seismic Hazard Assessment deemed this fault capable of a magnitude 7.4 earthquake, while the recent third Uniform California Earthquake Rupture Forecast ("UCERF3") report estimates an earthquake with a magnitude greater than 8.0 has a 7 percent likelihood to occur between 2014 and 2044 (Cao et al 2003, Field and WGCEP 2014).

Rinconada Fault

The Rinconada Fault is located approximately 0.4 mile southwest of the Proposed Project's 70 kV power line reconductoring segment. The Rinconada Fault also parallels the majority of the Alternative SE-PLR-2 route and crosses the Alternative SE-PLR-2 alignment near the intersection of El Pomar Road and South River Road. 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 et al. 2009). Based on the quaternary age of the Rinconada Fault, it is considered potentially active.

Huer Huero Fault

The Huer Huero Fault is located approximately 1.2 miles south of the Proposed Project 70 kV power line in the area of Union Road. The fault trends in a northwest direction along Huer Huero Creek south of 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. The Huer Huero Fault is inactive and is classified as an "undivided Quaternary fault"—a fault that has evidence of displacement in the last 1.6 million years (NEET West and PG&E 2017).

Oceanic Fault

The Oceanic Fault zone lies offshore and in the Santa Lucia Mountains in coastal Central California, 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, which occurred on December 22, 2003.

Ground Shaking

Seismic 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 shaking can be described in terms of acceleration, velocity, and displacement of the ground (NEET West and PG&E 2017).

As described in the PEA, the Applicants calculated potential ground shaking at the proposed Estrella Substation site and at Paso Robles Substation. Table 4.7-2 shows the peak ground acceleration values in the area of the Proposed Project. For reference, USGS's instrumental intensity scale is also provided.

Table 4.7-2. Peak Ground Acceleration and Instrumental Intensity Scale

Peak Ground Acceleration		**Firm Rock**	**Soft Rock**	**Alluvium**
Paso Robles Substation		0.301 g	0.324 g	0.345 g
Estrella Substation		0.325 g	0.324 g	0.369 g
Instrumental Intensity	**Peak Velocity (cm/s)**	**Peak Ground Acceleration (g)**	**Perceived Shaking**	**Potential Damage**
I	<0.02	<0.0005	Not Felt	None
II-III	0.1	0.003	Weak	None
IV	1.4	0.028	Light	None
V	4.7	0.062	Moderate	Very Light
VI	9.6	0.12	Strong	Light

Instrumental Intensity	Peak Velocity (cm/s)	Peak Ground Acceleration (g)	Perceived Shaking	Potential Damage
VII	20	0.22	Very Strong	Moderate
VIII	41	0.40	Severe	Moderate/Heavy
IX	86	0.75	Violent	Heavy
X+	>178	1.39	Extreme	Very Heavy

Notes: cm/s = centimeters per second; g = force of gravity

Source: NEET WEST and PG&E 2017; USGS 2020

Landslide and Slope Failure

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 (NEET West and PG&E 2017).

The Salinian domain, underlying the Proposed Project, reasonably foreseeable distribution components, and alternatives, has landslide potential in hillsides of moderate to steep slopes that have experienced large to moderate size landslides. The Proposed Project topography ranges from relatively flat (0 to 1 percent slope) to relatively steep (greater than 50 percent slopes), with steepest grades generally occurring along the east bank of the Salinas River, along North and South River Road (i.e., along the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C, and along Alternative SE-PLR-2). Although City of Paso Robles General Plan maps indicate that the Proposed Project is located in areas of low and moderate landslide risk (City of Paso Robles 2003), the County of San Luis Obispo General Plan identifies areas of high-risk potential (County of San Luis Obispo 2006).

Figure 4.7-3 shows landslide potential in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives based on the County of San Luis Obispo's data. As shown in Figure 4.7-3, the proposed Estrella Substation is located in an area of low landslide potential, while the proposed new 70 kV power line segment generally crosses areas of high landslide potential west of Huer Huero Creek. Much of the length of the reconductoring segment is identified as not having high landslide potential.

Of the alternatives under consideration, Alternative SS-1 is located on an area of low landslide potential, while Alternative SE-1A is located on an area with high landslide potential. Alternatives PLR-1A, PLR-1C, and SE-PLR-2 all traverse areas of low, moderate, and high potential for landslides. Example FTM Sites 5 and 6 are located in high landslide potential areas, while the remainder of the example FTM sites are located in areas of low or moderate landslide potential.

Subsidence, Erosion, & Liquefaction

Subsidence is defined as the downward displacement (or lowering) of a large portion of land. Subsidence may occur through compaction of loose, compressive soils, primarily as a result of excessive groundwater withdrawal or also due to seismic ground-shaking. Alluvial deposits along the Salinas River and their tributaries have a history of water well use and heavy groundwater extraction, and the region surrounding the Proposed Project, reasonably foreseeable distribution components, and alternatives sites primarily relies upon groundwater wells for both urban and agricultural uses. In general, soils susceptible to hydrocompaction are geologically immature soils that have high void ratios and low densities (NEET West and PG&E 2017).

Erosion is the process by which rocks, soil, and other land materials are abraded or worn away from the 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. Other factors, such as the steepness of slopes and absence of vegetation, may increase the natural rates of erosion. In general, erosion potential is highest in steep, unvegetated areas, especially those disturbed by grading or other construction activities (NEET West and PG&E 2017).

The Salinian domain, which underlies the Proposed Project, reasonably foreseeable distribution components, and alternative sites, is subject to liquefaction or seismic-related settlement of alluvium in 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). As shown in Figure 4.7-4, the Proposed Project, reasonably foreseeable distribution components, and alternatives are primarily located in mapped areas of low potential for liquefaction. Areas of high risk for liquefaction in the region are primarily along rivers and streams, such as Estrella River, Huer Huero Creek, and Salinas River.

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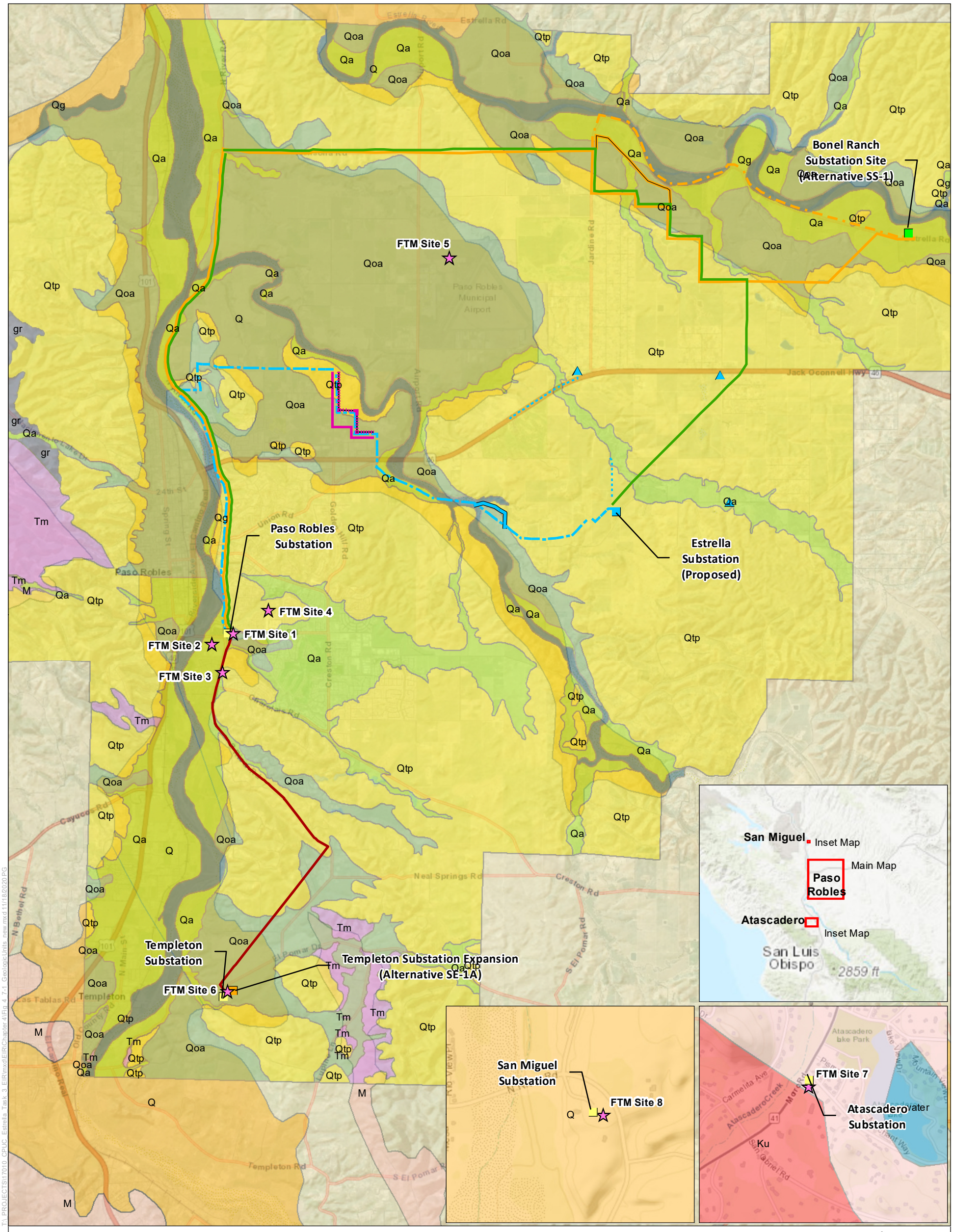

Figure 4.7-1
Geologic Units

Source: ESRI 2018, PG&E 2019, SCWA 2017, CDOC 2019

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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San Miguel Substation
FTM Site 8
FTM Site 5
Bonel Ranch Substation Site (Alternative SS-1)
Estrella Substation (Proposed)
FTM Site 4
FTM Site 1
FTM Site 2
FTM Site 3
Paso Robles Substation
RINCONADA FAULT
HUERHUERO FAULT
Templeton Substation
FTM Site 6
Templeton Substation Expansion (Alternative SE-1A)
Atascadero Substation
FTM Site 7
Main Map
Paso Robles
San Luis Obispo
2859 ft

Figure 4.7-2
Fault Zones

Proposed Project
- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components
- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure
- Existing Substations

Project Alternatives
- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Zone Features
- Fault Lines

N
0 1 2 Miles

Source: ESRI 2018, PG&E 2019, SCWA 2017, CDC 2015

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

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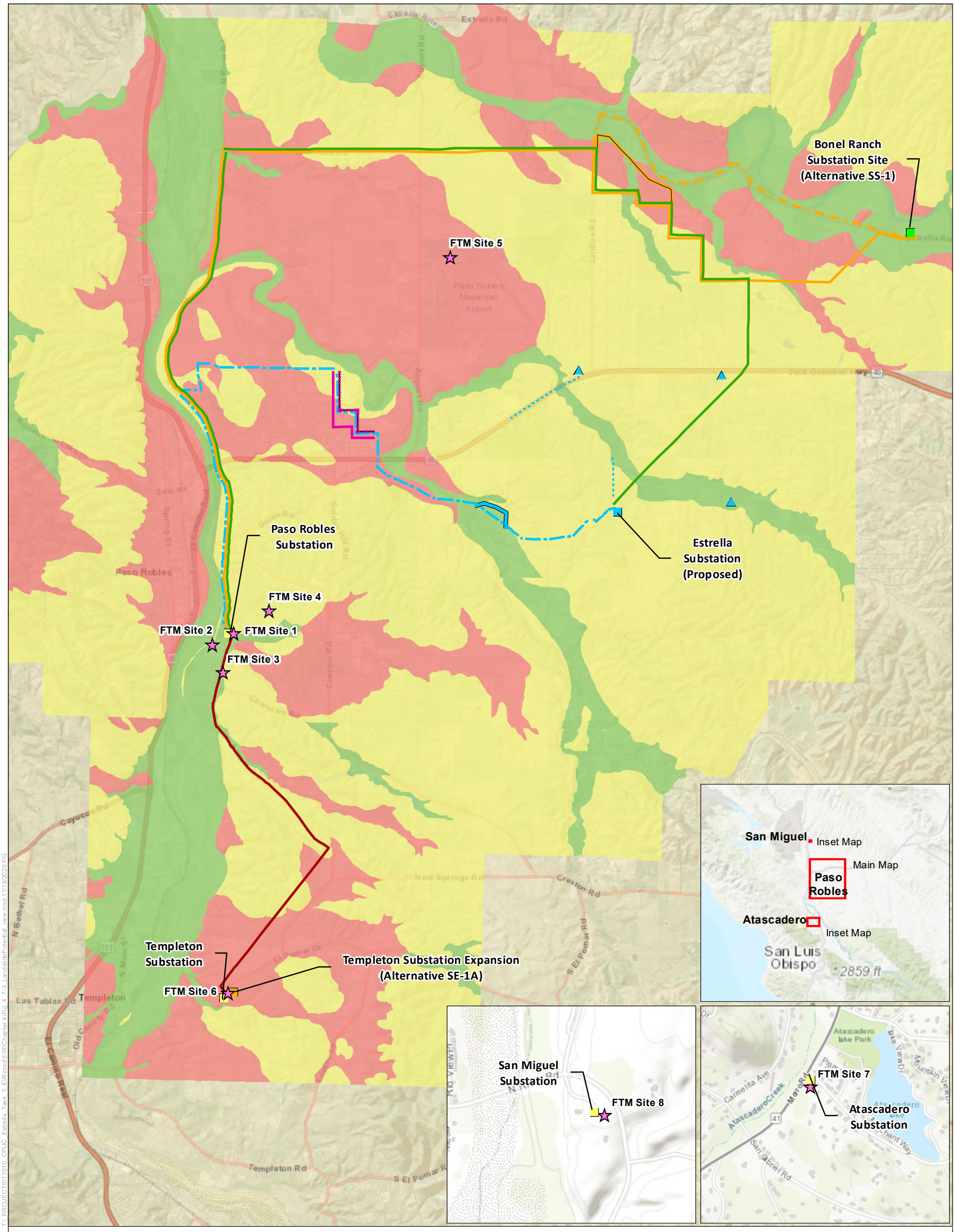

Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Landslide Potential*

- High Potential
- Moderate Potential
- Low Potential

*A portion of this layer was digitized from SLO County Planning Department Figures and is only approximate.

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.7-3
Landslide Potential

Source: ESRI 2018, SCWA 2017, and CDOC 2019, SLO County Planning and Building Department 2013

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and
Paso Robles Area Reinforcement Project

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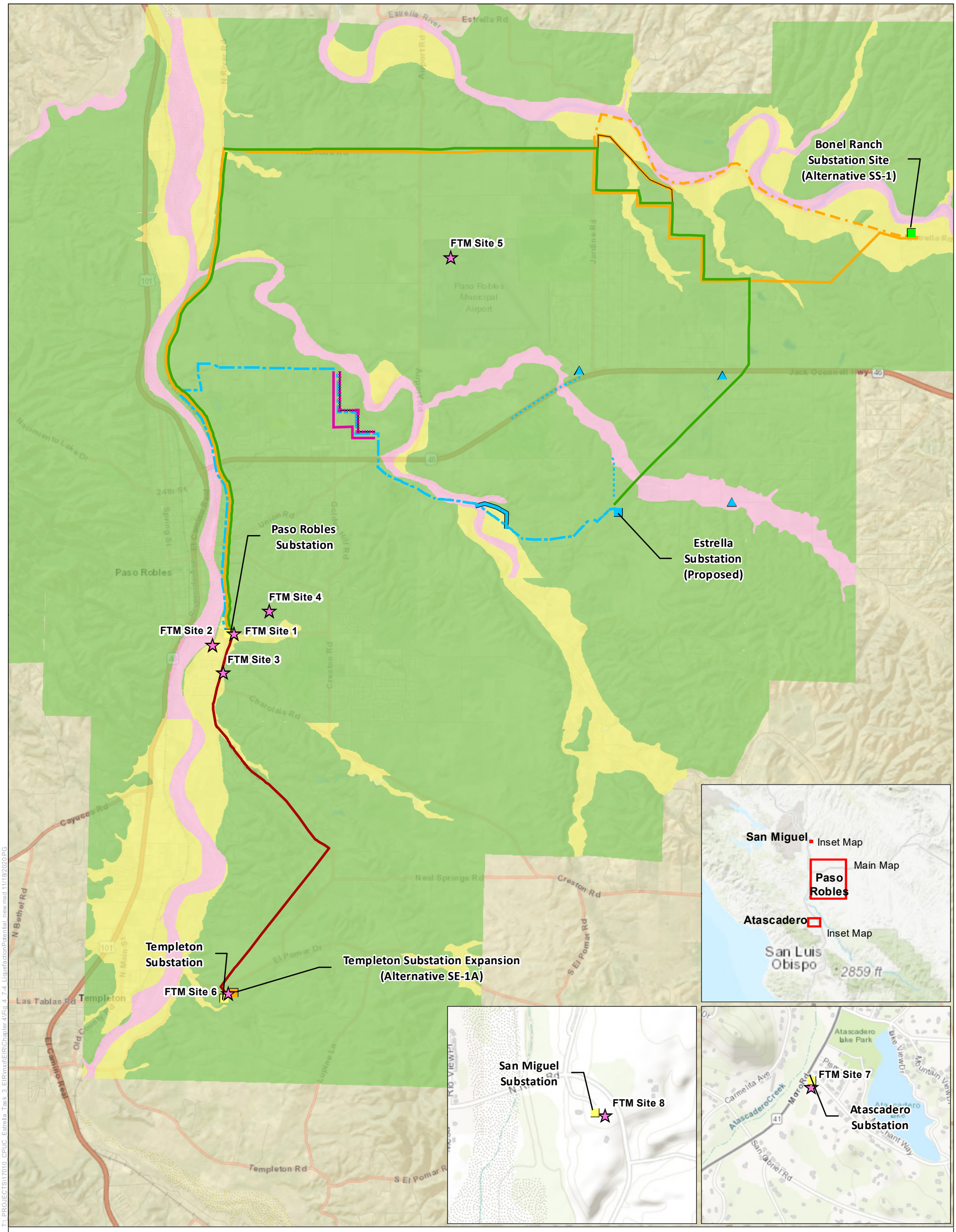

Proposed Project

- Estrella Substation

Existing Infrastructure

- Existing Substations
- 70kV Route

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- 70 kV Minor Route Variation 1
- Additional 21/12 kV Pad-Mounted Transformer

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Public Facilities

- High Potential
- Moderate Potential
- Low Potential

*A portion of this layer was digitized from SLO County Planning Department Figures and is only approximate.

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.7-4
Liquefaction Potential

Source: ESRI 2018, SCWA 2017, and CDOC 2019, SLO County Planning and Building Department 2013

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and
Paso Robles Area Reinforcement Project

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Paleontological Resources

Paleontological resources include fossil remains, as well as fossil localities and rock or soil formations that have produced fossil material. Fossils, which are the remains or traces of prehistoric animals and plants, are important scientific and educational resources because of their use in:

(1) documenting the presence and evolutionary history of particular groups of now-extinct organisms;

(2) reconstructing the environments in which these organisms lived; and

(3) determining the relative ages of the strata in which they occur, as well as the relative ages of the geologic events that resulted in the deposition of the sediments that formed these strata and in their subsequent deformation.

The potential for paleontological resources to be present on or beneath a given site depends on the type of rock formation/substrate, as well as whether any documented fossil localities are on or near the site. Paleontological resource surveys were conducted by the Applicants for the Proposed Project and Alternatives PLR-1A/PLR-1C, SE-1A, and SE-PLR-2 and the results of these surveys are described below. Surveys were not conducted for the reasonably foreseeable distribution components, Alternative SS-1, or the example FTM sites under Alternative BS-2.

Paleontological Resources in the Proposed Project Area

As described above, and depicted on Figure 4.7-1, the proposed Estrella Substation is underlain by the Paso Robles Formation (Qtp), while the proposed 70 kV power line route is underlain by four geologic units: Holocene alluvial gravel, sand, and clay (Qa); Holocene stream alluvial sand and gravel (Qg); Pleistocene older alluvial sediments (Qoa); and Pleistocene to latest Pliocene Paso Robles Formation (Qtp) (NEET West and PG&E 2017). The Holocene-aged alluvium would be considered too young to preserve fossils.

Field inspections at the substation site did not discover any paleontological resources or any paleontologically sensitive geologic formations on the ground surface within the substation footprint. This area, as well as much of the proposed 70 kV power line route, is nearly completely covered by agricultural and residential development and geologic features were generally not observable at the surface during walking surveys of the Proposed Project area. Surveyors were able to gather basic information about the subsurface geology along roadcuts and streambeds in the study area. In general, at these locations, non-sensitive geologic units, such as the Holocene alluvium (Qa) and surface soils ranging in thickness up to 6 feet was observed. These observations were generally consistent with the geotechnical data from the borings taken during the Proposed Project geotechnical investigations (refer to Appendices L and M of the PEA).

Literature and museum records searches were also conducted as part of the paleontological resources survey and, together with the results of the ground survey, allowed for the geologic units in the Proposed Project area to be assigned Potential Fossil Yield Classifications (PFYCs), which are shown in Table 4.7-3.

Table 4.7-3. Paleontological Sensitivity of Geologic Units in the Proposed Project Area

Geologic Unit	Age	Potential Fossil Yield Classification	Location in the Proposed 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 Huer Huero Creek.
Stream alluvial gravel and sand (Qg)	Holocene (0.01 Ma – present)	Low – Class 2	Exposure in the streambed paralleling Union Road and Huer Huero 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 Huer Huero Creek.
Paso Robles formation (Qtp)	Pleistocene (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.

Notes: kV = kilovolt; Ma = million years ago

Source: NEET WEST and PG&E 2017

Paleontological Resources Within or Adjacent to Alternative Sites

Alternatives PLR-1A/PLR-1C: Estrella Route Variations

A paleontological resources study (PG&E 2017) was undertaken for the Estrella Route, originally conceived of in the PEA, which is identical to the Alternative PLR-1A route considered in this DEIR. Much of the Alternative PLR-1C route also is covered by the previously completed paleontological resources study, although a portion of the Alternative PLR-1C route is not covered by the study (i.e., where the Alternative PLR-1C route diverges from the Alternative PLR-1A route towards the Bonel Ranch Substation Site).

As described in the Estrella Route Paleontological Resources Technical Report (PRTR) (PG&E 2017), geological mapping indicates that the area surrounding the Estrella Route is underlain by three geologic units: Quaternary valley alluvial sands (Holocene [0.01 Ma]), Quaternary older alluvial sediments (Pleistocene [0.01 – 2.6 Ma]), and the Pleistocene to latest Pliocene Paso Robles formation (2.6 – 3.6 Ma). Museum collections records indicate no previously recorded

fossil localities exist within the footprint of the Estrella Route; however, one locality is within a 1-mile radius of the alignment and seven fossil localities have been recorded within a 15-mile radius (PG&E 2017). No paleontological resources were identified during a field inspection of the Estrella Route. Based on the literature and museum record searches and the field survey, paleontological sensitivity for the alternative alignment was identified, as shown in Table 4.7-4.

Table 4.7-4. Paleontological Sensitivity of Geologic Units in the Vicinity of the Estrella Route

Geologic Unit	Age	Potential Fossil Yield Classification	Location in the Alternative Route Vicinity
Alluvial gravel, sand, and clay (Qa)	Holocene (0.01 Ma – present)	Low – Class 2	Sediments occur at the northwest terminus at North River Road, in the northwest portion near where the route crosses Jardine Road, and in the southern portion, near the route terminus where the route crosses the dry streambed.
Quaternary older alluvium (Qoa)	Pleistocene (2.6 – 0.01 Ma)	High – Class 4b	Sediments occur along the northwestern portion of the route for roughly 1 mile before the end of the route and in the northeastern portion of the route where the route stair-steps south.
Paso Robles formation (Qtp)	Pleistocene (3.6 – 2.6 Ma)	High – Class 4b	Sediments occur in the majority of the northern portion of the route and the majority of the eastern and southern portions.

Notes: Ma = million years ago

Source: PG&E 2017

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

As described in the PRTR for Alternative SE-1A (NEET West 2019), geologic mapping indicates that the Alternative SE-1A site is underlain by Pleistocene-aged older alluvium. Paso Robles Formation may occur in the subsurface underlying this older alluvium. Museum collections searches indicate no records of fossil localities within the alternative site, although six fossil localities have been recorded within a 15-mile radius of the alternative substation site, the nearest being in a wash off Dry Canyon between State Route 46 and Union Road (less than 1 mile away). All six fossil localities occur in either older alluvium or the Monterey Formation, which does not occur at the surface in the Alternative SE-1A area (NEET West 2019). No fossils were discovered during the field investigation of the Alternative SE-1A site. Based on the literature and museum records searches, paleontological sensitivity for geologic units underlying the site were identified, as shown in Table 4.7-5.

Table 4.7-5. Paleontological Sensitivity of Geologic Units in the Vicinity of the Templeton Substation Expansion Site

Geologic Unit	Age	Potential Fossil Yield Classification	Presence in Alternative Site
Quaternary older alluvium (Qoa)	Pleistocene (2.6 – 0.01 Ma)	High – Class 4	Surface.
Paso Robles formation (Qtp)	Pleistocene-late Pliocene (3.6 – 2.6 Ma)	High – Class 4	Subsurface.

Notes: Ma = Million years ago

Source: NEET West 2019

Alternative SE-PLR-2 Templeton-Paso South River Road Route

As described in the PRTR (PG&E 2019) for the Templeton Route Alternatives (one of which is Alternative SE-PLR-2), geologic mapping indicates that the Templeton Route Alternatives traverse Holocene-aged younger alluvium (Qa), Pleistocene-aged older alluvium (Qoa), and the Pliocene/Pleistocene-aged Paso Robles Formation (Qtp). Additionally, Miocene-aged Monterey Formation (Tm) may be present in the subsurface of the alternative power line alignments. Literature searches identified 10 fossil localities that have been recorded within a 15-mile radius of the Templeton Route Alternatives, although none are located within the Alternative SE-PLR-2 alignment. All 10 fossil localities occur in either older alluvium (Qoa) or the Monterey Formation, which does not occur at the surface of the Alternative SE-PLR-2 route (PG&E 2019). No fossils were identified during field surveys of the Templeton Route Alternatives. Based on the literature and museum records searches, paleontological sensitivity for geologic units underlying the Templeton Route Alternatives were identified, as shown in Table 4.7-6.

Table 4.7-6. Paleontological Sensitivity of Geologic Units in the Vicinity of the Templeton Route Alternatives

Geologic Unit	Age	Potential Fossil Yield Classification	Occurrence along Alternative Routes
Alluvial gravel, sand, and clay (Qa)	Recent – early Holocene (0.01 Ma)	Low – Class 2	Surface.
Quaternary older alluvium (Qoa)	Pleistocene (2.6 – 0.01 Ma)	High – Class 4	Surface and subsurface.
Paso Robles formation (Qtp)	Pleistocene-late Pliocene	High – Class 4	Surface and subsurface.

Geologic Unit	Age	Potential Fossil Yield Classification	Occurrence along Alternative Routes
	(3.6 Ma – 2.6 Ma)		
Monterey Formation (Tm)	Late Miocene (15 – 3 Ma)	High – Class 4	Subsurface.

Notes: Ma = Million years ago

Source: PG&E 2019

4.7.4 Impact Analysis

Methodology

The evaluation of impacts was qualitative in nature and considered whether and how construction and operation of the Proposed Project, reasonably foreseeable distribution components, and alternatives could directly or indirectly affect geology, soils, seismicity, and paleontological resources, as determined by the CEQA Guidelines Appendix G significance criteria. As described further below, the impact analysis also took into account the California Supreme Court decision, *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 ("*CBIA v. BAAQMD*") that has bearing on the analysis of geology, soils, seismicity, and paleontological resources impacts.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, or alternatives would have a significant effect related to geology, soils, seismicity, and paleontological resources if they would meet any of the following conditions:

A. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

   i. rupture of a known earthquake fault;

   ii. strong seismic ground shaking;

   iii. seismic-related ground failure, including liquefaction; or

   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 direct or indirect risks to life or property;

E. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for disposal of wastewater; or

F. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

The analysis takes into account the 2015 California Supreme Court's holding in *CBIA v. BAAQMD* that CEQA does not generally operate "in reverse." That is, CEQA generally does not require analysis of the impact of the existing environmental conditions on future users or residents of a proposed project. The Court determined, "it is the *project*'s impact on the environment – and not the *environment's* impact on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions." (*Id*. at p. 377.) Evaluating "the environment's effects *on* a project… would impermissibly expand the scope of CEQA." (Id. at p. 387.) Thus, the court determined, "when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users." (*Id.* at p. 377.)

In applying *CBIA's* holding with respect to geology, soils, seismicity, and paleontological resources, a proposed project that places structures or people in areas subject to geological hazards would only result in significant impacts if it were to exacerbate these existing geological hazards or conditions. Therefore, the impacts analyses below focus on the extent to which the Proposed Project, reasonably foreseeable distribution components, or alternatives could exacerbate any existing geologic hazards or conditions that may already be present within the impact area.

Environmental Impacts

Proposed Project

Impact GEO-1: Potential to directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death associated with rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides – *No Impact*

i. Rupture of a known earthquake fault – *No Impact*

No faults zoned under the Alquist-Priolo Earthquake Fault Zoning Act, or any other active faults (having surface ruptured in the last 200 years or shown displacement in the 11,000 years) are located on or near the proposed Estrella Substation site or the proposed 70 kV power line alignment (refer to Figure 4.7-2). The nearest potentially active fault is the Rinconada Fault, which is located approximately 0.4 mile southwest of the southern terminus of the 70 kV power line reconductoring segment. Because construction and operation of the Proposed Project would not occur on an active fault line delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, it would not directly or indirectly cause potential substantial adverse effects associated with rupture of a known earthquake fault.

Additionally, there is no substantial evidence indicating that the Proposed Project components, would directly or indirectly exacerbate the effects of a potential rupture. Neither the

construction or operation of the substation or power line would reasonably increase the likelihood of an earthquake nor increase the force or magnitude of a fault rupture. Therefore, **no impact** would occur.

ii. Strong seismic ground shaking – *No Impact*

Although no active faults are located in immediate proximity to the Proposed Project components, there is potential for a high-magnitude earthquake to occur along one of the existing regional fault lines. As described in Section 4.7.3, the proposed Estrella Substation and 70 kV power line are located on alluvial geologic formations, which tend to experience stronger ground-shaking than hard rock formations. The proposed substation site could experience Peak Ground Acceleration (PGA) levels that translate to very strong to severe perceived intensity with the potential for moderate to heavy damage. Given the relative proximity of active faults such as the San Andreas and Oceanic faults, the entire Paso Robles area could potentially be subject to strong ground shaking in the event of an earthquake along one of these faults.

While the Proposed Project would be located in an area susceptible to earthquakes, the Proposed Project would not exacerbate the effects of ground shaking that may occur in the Proposed Project area. The proposed substation and power line would not be used for human occupancy and would be designed in accordance with existing laws and regulations related to geological and seismic stability. Specifically, the Proposed Project components would be designed in accordance with CPUC G.O. 174, which outlines minimum construction material requirements, calculations for foundations, and utility safety measures designed to withstand damage from ground rupture and seismic shaking. The proposed 70 kV power line structures also would be engineered to meet loads generated by forces such as seismic activity, as required by CPUC G.O. 95. Finally, implementation of APM GEO-1 would employ other appropriate measures to avoid, accommodate, replace, or improve soft or loose soils if they are encountered during construction, which would help to increase stability of structures in the event of strong seismic ground shaking.

Because construction and operation of the Proposed Project would neither directly nor indirectly cause nor exacerbate seismic ground shaking that may occur in the Proposed Project area, **no impact** would occur.

iii. Seismic-related ground failure, including liquefaction – *No Impact*

As shown in Figure 4.7-4, the proposed Estrella Substation and the vast majority of the length of the proposed 70 kV power line is located in an area mapped as having low potential for liquefaction. The only portion of the proposed 70 kV power line that crosses an area identified as having moderate or high potential for liquefaction is the portion that crosses over Huer Huero Creek. The majority of the Proposed Project area is located on sandy Arbuckle soils, loose clay Nacimiento soils, and other sandy loam soils with no evidence of shallow groundwater levels or saturated soils. The geotechnical investigation reports conducted for both the proposed Estrella Substation (RRC 2016) and 70 kV power line (Kleinfelder 2017) found the potential for liquefaction to be negligible. Regardless, construction or operation of the Proposed Project would not directly or indirectly exacerbate any existing liquefaction hazards in the Project vicinity. This is because the Proposed Project would not include uses that would substantially

change the existing soil composition in the area nor would the project increase the groundwater table or otherwise increase soil saturation. Therefore, **no impact** would occur.

iv. Landslides – *No Impact*

The proposed Estrella Substation would be constructed on agricultural lands with mild slopes, designated as having moderate potential for landslides (see Figure 4.7-3). The proposed 70 kV power line would traverse areas of low, moderate, and high landslide risk, although the majority of the new power line segment is located on level ground with slopes of less than 30 percent. Areas with the greatest slopes occur along the 70 kV power line reconductoring segment and installation of new conductors and replacement poles would not change the line's susceptibility to damage from landslide beyond existing conditions. In general, grading required for the Proposed Project would not create new steep slopes and the Proposed Project would be designed in accordance with applicable laws and regulations related to geologic and seismic stability (see discussion under Impact GEO-1, subsection ii). As such, construction and operation of the Proposed Project would not directly or indirectly cause potential substantial adverse effects associated with landslides nor exacerbate existing landslide hazards in the Proposed Project vicinity. Therefore, **no impact** would occur.

Impact GEO-2: Result in substantial soil erosion or the loss of topsoil – *Less than Significant*

Excavation and ground disturbing activities associated with construction of the Proposed Project could increase exposure of soil to erosive forces. Proposed Project activities that would expose soil to erosive forces include the construction of Estrella Substation (e.g., vegetation removal, site grading, trenching, and cut and fill), preparing new pole and tower sites, augering holes for new and replacement pole and tower foundations, removal of existing poles, establishing new access roads and staging areas, establishing pull and tension sites and other work areas (e.g., landing zones), and, to a limited extent, use of existing access roads that are not paved. Intense rain or wind events in areas where these activities are occurring could result in soil erosion into adjacent waterways.

Soils underlying the proposed Estrella Substation site are moderately susceptible to erosion, while soils underlying the 70 kV power line alignment range in characteristics but include some areas with moderate to high erosion potential. The proposed substation site and the majority of the length of the proposed 70 kV power line occur on low to moderate slopes. As described in detail in Section 4.10, "Hydrology and Water Quality", the Applicants would be required to obtain coverage under the SWRCB's General Permit for Storm Water Discharges Associated with Construction Activity Order Number 2009-0009-DWQ (Construction General Permit), which would require development and implementation of a SWPPP. Among other measures, the SWPPP would include measures to control erosion and sedimentation from Proposed Project construction and operation activities. Erosion-control measures or BMPs may include scheduling or limiting activities to certain times of the year (i.e., during the dry season); installing sediment barriers, such as silt fence and fiber rolls along the perimeter of the construction area, and implementing sediment-tracking controls, such as stabilizing entrances to the construction site.

Implementation of the SWPPP would reduce the potential for substantial soil erosion resulting from the Proposed Project construction. Topsoil reuse is not practicable within the fenced

substation area; however, topsoil would be conserved at exterior temporary work areas where applicable (see Chapter 2, *Proposed Project*). SWPPP BMPs would ensure that soil stockpiles are protected from storm events and located away from and/or downgradient from waterways, as well as provide for avoidance of excessive disturbance of steep slopes, control of vehicle traffic, and implementation of a dust-control program. Implementation of APM AIR-3, which would require a variety of measures to reduce fugitive dust during construction, would also serve to minimize loss of topsoil and reduce erosion.

After construction of the Proposed Project is complete, disturbed areas would be restored to pre-project conditions through implementation of measures outlined within the SWPPP. During operation, no elements of the Proposed Project would cause substantial soil erosion or loss of topsoil. As noted previously, the Proposed Project components would operate remotely and no staff would be permanently located on-site. Infrequent routine inspection and maintenance activities for the Estrella Substation and 70 kV power line would have limited potential to cause substantial soil erosion or loss of topsoil, although accessing the power line structures via dirt access roads or by helicopter could potentially cause some soil disturbance and subsequent erosion. Due to the limited scale of operation and maintenance activities and their infrequent nature, this potential impact would be less than significant.

Implementation of the SWPPP and APM AIR-3 would substantially reduce potential for significant soil erosion and loss of topsoil during construction of the Proposed Project. For the reasons above, potential erosion and loss of topsoil during Proposed Project operation would be less than significant. Overall, Impact GEO-2 would be **less than significant**.

Impact GEO-3: 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 with Mitigation*

As discussed above, the Estrella Substation would be located on relatively minor slopes with soft to hard lean clays and very loose to very dense sand soils. The power line route would be located on mild to moderate slopes with a variety of soils, including medium dense to dense clayey sand, silty sand, and poorly graded sand with variable quantities of fine gravel (NEET West and PG&E 2017). As discussed under Section 4.7.3, 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 (e.g., landslides, lateral spreading, and subsidence), which would be considered a significant impact. Alternatively, soils that are dominated by clay are close-textured, but can be expansive, or susceptible to shrinking and swelling, that can result in damage to structures (e.g., collapse), which would be considered a significant impact. As described above, the Estrella Substation and the majority of the length of the proposed 70 kV power line route would be located on areas identified as having low potential for liquefaction (see Figure 4.7-4).

Geotechnical investigation reports for the Estrella Substation (RRC 2016) and the 70 kV power line (Kleinfelder 2017) concluded that underlying geologic units and soils within the Proposed Project area are sufficiently stable to support construction and operation of the Proposed Project components. Nevertheless, geotechnical investigation reports have site-specific recommendations included to reduce potential direct and indirect impacts to geologic unit and

soils. **Mitigation Measure GEO-1** requires that the Proposed Project Applicants implement recommendations provided in the Project Geotechnical Investigations, for assurance that subsequent potential impacts related to instability (e.g., landslide, lateral spreading, subsidence, liquefaction, or collapse) would be reduced to levels that are less than significant.

Further, as described under Impact GEO-1, the proposed substation and power line would be designed in accordance with existing laws and regulations related to geologic and soil stability (e.g., G.O. 174 and 95). Additionally, the Applicants would implement APM GEO-1, requiring replacement or improvement of any loose soils encountered during construction. All of these measures would improve the stability of Proposed Project structures and components. Overall, the Proposed Project components would not exacerbate any instability in underlying geologic units or soil, nor result in adverse geologic effects.

No evidence has been discovered of shallow groundwater and/or saturated soils in the locations where Proposed Project components would be constructed. While water required for occasional maintenance tasks may or may not be obtained from groundwater; Proposed Project operation and maintenance tasks would not consume significant amounts of groundwater, such that soils would shrink or retract, resulting in instability of the underlying geologic unit and soils, and/or cause excessive drawdown of the aquifer and land subsidence (refer to Appendices L and M of the PEA).

Overall, with implementation of APM GEO-1, Mitigation Measure GEO-1, and with adherence to existing laws and regulations related to geologic and soil stability (e.g., G.O. 174 and 95), the Proposed Project impacts related to its location on unstable geologic units or soils resulting in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse would be **less than significant with mitigation**.

> **Mitigation Measure GEO-1: Implement Recommendations in the Project Geotechnical Investigation Report.**
>
> HWT, PG&E, and/or their contractors shall implement the recommendations contained in the geotechnical investigation report prepared for the proposed Estrella Substation (RRC 2016) and proposed 70 kV power line (Kleinfelder 2017). These include recommendations for a professional geotechnical engineer or his/her representative to be present during construction to evaluate the suitability of excavated soils for use as engineered fill, to observe and test site preparation and fill placement, and to assess the need for densification of subgrade materials.

Impact GEO-4: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property – *Less than Significant with Mitigation*

The proposed Estrella Substation and the 70 kV power line are located on soils which vary in shrink-swell potential from low to high. Areas that are rated as having a high potential for shrinking and swelling can lift or settle during rain events and cause damage to structures, which would be considered a significant impact. The Estrella Substation geotechnical investigation (Kleinfelder 2017) revealed the substation site includes both soft clays and loose sandy soils, and included recommendations to excavate soils to a depth of 4 feet or until a stable soil is reached, then backfill with more suitable material (RRC 2016). The geotechnical report completed for the

power line also includes recommendations to design the power line to reduce potential impacts resulting from expansive soil (Kleinfelder 2017). With implementation of **Mitigation Measure GEO-1**, geotechnical report recommendations would be adhered to and the Proposed Project would not be subject to excessive risks from expansive soils. For these reasons, the Proposed Project components would not exacerbate any existing hazards from expansive soils. Therefore, this impact would be **less than significant with mitigation**.

Impact GEO-5: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for disposal of waste water – *No Impact*

The Proposed Project would not include the use of septic tanks or alternative wastewater disposal systems. Therefore, **no impact** would occur.

Impact GEO-6: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature – *Less than Significant*

As described in Section 4.7.3, the subsurface of the Estrella Substation and 70 kV power line alignment includes Paso Robles formation (Qtp) and Quaternary older alluvium (Qoa), which has a high paleontological sensitivity (PFYC Class 4b); however, no records of fossils were identified within 1 mile of the Proposed Project location. No geological units that underlie the Proposed Project area are known to contain unique geologic features (NEET West and PG&E 2017). Based on the size and depth of grading and ground disturbing activities required for Proposed Project construction, it is possible that paleontological resources within the underlying Paso Robles formation and Quaternary older alluvium could be encountered. If the Project were to directly or indirectly destroy such paleontological resources, or site or geologic feature, the Project would result in a significant impact.

The Applicants have proposed a number of project design measures related to paleontological resources protection, as described in Table 2-12 of Chapter 2, *Project Description* that would help avoid potential paleontological impacts. Specifically, APM GEN-1 would require that the Applicants prepare and implement a WEAP, including training all on-site construction personnel in avoidance and minimization measures for paleontological resources. This training would include information on how to identify paleontological resources, including the types of fossils that could be found in the Proposed 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, and penalties for disturbing paleontological resources. Additionally, APM PALEO-1 would require retention of a Paleontological Resources Principal Investigator meeting the standards set forth by the Society of Vertebrate Paleontology to ensure that APMs related to paleontological resources are properly implemented.

APM PALEO-2 would outline a set of procedures for construction personnel to follow if paleontological resources are discovered during construction activities. This would include: stopping work immediately within 50 feet of the find; protecting the site from further impacts; allowing the Paleontological Resources Principal Investigator to evaluate the discovery and make recommendations regarding its significance; and implementation of resource-specific measures to protect and document the resource, if warranted. (Refer to Chapter 2 for the full APM text.) Implementation of APM PALEO-3 would require monitoring of ground-disturbing

construction activities by paleontological monitors in accordance with the sensitivity of subsurface materials. Finally, APM PALEO-4 would outline procedures for fossil recovery in the event that fossils or unique paleontological resources are encountered during construction. The fossil recovery effort would be led by the Paleontological Resources Principal Investigator in coordination with the CPUC.

Implementation of the above-described APMs would ensure potential impacts on paleontological resources or unique geologic features are less than significant. Workers would be trained in identifying resources that could be contained within the subsurface materials encountered during construction and the presence of paleontological monitors and the Paleontological Resources Principal Investigator will further reduce potential for inadvertently destroying any significant resources. The procedures outlined in the APMs also would provide for protection, evaluation, and preservation/documentation of any discovered resources. Following construction, the Proposed Project would not involve any excavation or ground-disturbance during operation that could potentially impact paleontological resources.

Overall, with implementation of the applicable APMs, the Proposed Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Therefore, this impact would be **less than significant**.

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

Construction and operation of the reasonably foreseeable distribution components would have minimal potential to result in adverse effects related to geology, soils, and seismicity, including paleontological resources. The new distribution line segments and additional 21/12 kV pad-mounted transformers would not be located on any active faults delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map and would have similar proximity to the potentially active Rinconada Fault and the active regional faults as the Proposed Project components (see Impact Geo-1). Likewise, the equipment and facilities associated with ultimate substation buildout would primarily be placed within the fence line of the already-constructed Estrella Substation, except for the additional 230 kV interconnection, which would be constructed adjacent to the substation. Note that the routes for any additional future distribution feeders and/or 70 kV power lines that could be established through ultimate substation buildout are not known, and thus the impacts of these facilities are speculative and not evaluated in this DEIR. While construction and operation of the reasonably foreseeable distribution components and ultimate substation buildout facilities could be subject to strong seismic groundshaking; these facilities would not directly or indirectly cause or exacerbate rupture of a known earthquake fault (criterion A subsection i), strong seismic ground shaking (criterion A subsection ii), or seismic-related ground failure (criterion A subsection iii). Reasonably foreseeable distribution components would be located on areas identified as having low potential for liquefaction (see Figure 4.7-4; criterion A subsection ii). The reasonably foreseeable distribution components would be located in areas with low to moderate landslide risk and the construction and operation of the distribution components would not cause landslides or exacerbate the existing landslide hazards (see Figure 4.7-3; criterion A subsection iv). Therefore, **no impact** would occur under significance criterion A (subsections i-iv).

As described in Chapter 2, *Project Description*, new distribution line poles would be directly embedded following standard construction practices for PG&E. Distribution poles would be installed along existing roads and would require minimal work areas at each structure site. Because these areas collectively are less than 1 acre in size, they do not trigger coverage under the Construction General Permit, which requires development and implementation of a SWPPP, and typically adherence to erosion control and sedimentation measures. Without implementation of these measures, while minimal in size, reasonably foreseeable distribution components have the potential to result in substantial adverse impacts related to erosion or the loss of topsoil. During construction, PG&E would implement APM GEO-1, which requires replacement or improvement of loose soils encountered during installation of distribution line poles. Further, **Mitigation Measure HYD/WQ-1** would require that PG&E implement erosion-control BMPs during construction, which would minimize potential for erosion and loss of topsoil. As mentioned above, the equipment and facilities associated with ultimate substation buildout would primarily be placed within the fence line of the already-constructed Estrella Substation, where ground disturbance would be limited to that required for equipment foundations and substation wiring. Construction of the additional 230 kV interconnection for ultimate substation buildout would have greater potential for causing erosion, but this could be minimized through implementation of standard measures. Overall, with implementation of APM GEO-1 and Mitigation Measure HYD/WQ-1, impacts under significance criterion B would be **less than significant with mitigation.**

The reasonably foreseeable distribution components would not be located on steep slopes or in areas susceptible to landslides or liquefaction (see Figure 4.7-3 and Figure 4.7-4). It is unknown whether the geologic unit and soils within the areas which the new distribution line poles would be embedded would be unstable or expansive, such that seismic hazards (e.g., landslide, lateral spreading, subsidence, liquefaction, or collapse) or shrinking or retracting, respectively, would result in instability of the underlying geologic unit and soils (see Impacts GEO-3 and GEO-4). However, the Proposed Project's incorporation of APM GEO-1 would minimize the risk of significant adverse effects from unstable and expansive soils, such that impacts would not be considered significant. Additionally, there is no evidence that construction and/or operation of the reasonably foreseeable distribution components would exacerbate existing geologic hazards related to instability or expansive soils. The equipment and facilities associated with ultimate substation buildout would be placed within the fence line of Estrella Substation or immediately adjacent, and therefore potential for impacts related to unstable or expansive soils, seismic hazards (e.g., landslide, lateral spreading, subsidence, liquefaction, or collapse), and/or shrinking or retracting are the same as those described for the Proposed Project. Reasonably foreseeable distribution components and infrastructure anticipated as part of the ultimate substation buildout do not include habitable structures that would put people at risk from existing hazards. For these reasons, impacts under significance criteria C and D would be **less than significant.**

Neither the reasonably foreseeable distribution components nor the proposed infrastructure affiliated with ultimate substation buildout would include or require use of septic tanks or alternative wastewater disposal systems. Therefore, **no impact** would occur under significance criterion E.

The reasonably foreseeable distribution components would have less potential to impact paleontological resources than the Proposed Project because construction would involve far less excavation and ground-disturbance. Nevertheless, the distribution components would be

installed primarily in areas overlying the paleontologically-sensitive Paso Robles formation (Qtp) and construction activities could potentially encounter paleontological resources. During construction, the Applicants would implement APM GEN-1 and APMs PALEO-1 through 4. As described in Impact GEO-6 above, these measures would avoid or substantially reduce potential impacts on paleontological resources. The equipment and facilities associated with ultimate substation buildout would be located primarily within the fence line of the previously constructed Estrella Substation. Therefore, presence of unique paleontological resources or geologic features in these areas and related direct and indirect impacts are unlikely. Potential impacts associated with the additional 230 kV interconnection for ultimate substation buildout should be avoided through implementation of standard measures. As such, impacts under significance criterion F would be **less than significant.**

Alternatives

No Project Alternative

Under the No Project Alternative, no new substation or power line would be constructed; therefore, there would be no potential for new impacts related to geology, soils, and seismicity, and there would be no potential for ground-disturbing activities to encounter paleontological resources. Therefore, **no impact** would occur.

Alternative SS-1: Bonel Ranch Substation Site

Siting the substation at Bonel Ranch under Alternative SS-1 would include roughly the same features/components and footprint as the proposed Estrella Substation. As such, it would involve roughly the same amount of excavation work and same construction processes as proposed for the Estrella Substation. As shown in Figure 4.7-2, no faults traverse the Bonel Ranch site, active or otherwise. The Bonel Ranch Substation Site would be further from the potentially active Rinconada Fault compared to the Estrella Substation site but would be closer to the active San Andreas Fault System. Because construction and operation of the Proposed Project is not located on an active fault line delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, the project would not directly or indirectly result in potential substantial adverse effects associated with rupture of a known earthquake fault (criterion A subsection i).

Further, there is no substantial evidence indicating that construction and/or operation of the substation at the Bonel Ranch Substation Site would directly or indirectly exacerbate seismic-related hazards in the area. While construction and operation of Alternative SS-1 could be subject to strong seismic groundshaking, there is no evidence to suggest these facilities would directly or indirectly cause or exacerbate strong seismic ground shaking (criterion A subsection ii), or seismic-related ground failure (criterion A subsection iii). Bonel Ranch Substation Site is located in an area identified as having low potential for liquefaction (see Figure 4.7-4; criterion A subsection ii). The Bonel Ranch Substation Site is located in an area with moderate landslide risk, however there is no evidence to suggest that construction and operation of the substation would cause landslides or exacerbate the existing landslide hazards (see Figure 4.7-3; criterion A subsection iv). Additionally, the substation would be operated remotely and would not place any people in a potentially hazardous area. For these reasons, **no impact** would occur under significance criterion A (subsections i-iv).

Because Alternative SS-1 would disturb more than 1 acre of land, it would require coverage under the Construction General Permit, including preparation and implementation of a SWPPP. As described under Impact GEO-2 above, BMPs likely to be included in the SWPPP would reduce potential for substantial erosion from construction activities as well as migration of sediments off-site and loss of topsoil. Implementation of APM AIR-3, requiring fugitive dust mitigation measures during construction, would also serve to minimize loss of topsoil and reduce erosion. Topsoil reuse is not feasible within the fenced substation area; as with the Proposed Project, topsoil would be conserved at exterior temporary work areas. Overall, impacts under significance criterion B would be **less than significant.**

At this time, there is no indication that the Bonel Ranch Substation Site is located on an unstable geologic unit, or unstable and/or expansive soils such that construction and/or operation of the substation could result in subsequent seismic hazards (e.g., landslide, lateral spreading, subsidence, liquefaction, or collapse) or shrinking or retracting, respectively. As part of the alternatives selection and development process conducted for the PEA, the Applicants evaluated this alternative substation site for feasibility and constructability, including site preparation and grading requirements, and did not identify fatal faults with respect to geologic site conditions (NEET West and PG&E 2017). The Alternative SS-1 site is relatively flat and identified as having moderate liquefaction potential (see Figure 4.7-4), and its location near the Estrella River could increase the likelihood of encountering soft soils during construction. Should construction of the substation encounter soft soils and exacerbate existing stability issues, direct and indirect adverse impacts would be considered a significant impact. However, incorporation of APM GEO-1 would employ other appropriate measures to avoid, accommodate, replace, or improve soft or loose soils if they are encountered during construction, which would help to increase stability of structures in the event of strong seismic ground shaking. Further, design and construction requirements in G.O. 95 and 174, as well as the CBC, would minimize hazards associated with unstable geologic units/soils or expansive soils, ensuring the potential for such impacts would be less than significant. Additionally, there is no evidence that construction and/or operation of the Alternative SS-1 components would exacerbate existing hazards from unstable geologic units/soils or expansive soils. For these reasons, impacts under significance criteria C and D would be **less than significant.**

Alternative SS-1 would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, **no impact** would occur under significance criterion E.

As shown in Figure 4.7-1, the Alternative SS-1 site is underlain by Holocene alluvial gravel, sand, and clay (Qa), which would generally be considered too young to bear fossils. However, a PRTR has not been prepared for the Bonel Ranch Substation Site, so the potential sensitivity of the underlying soils and geology for paleontological resources are not fully known. Under Alternative SS-1, the Applicants would implement APM GEN-1 and APMs PALEO-1 through 4, which would reduce potential for impacts to paleontological resources; however, if these efforts were not informed by a pre-construction survey describing the areas of relative sensitivity within the disturbance area, they may be less effective, resulting in a significant impact. Therefore, **Mitigation Measure GEO-2** would require performance of a paleontological resources survey and preparation of a technical report and monitoring plan to inform paleontological resources avoidance and monitoring during construction of Alternative SS-1. Mitigation Measure GEO-2, further, requires that the Applicants implement any recommendations contained in the PRTR prepared for Alternative SS-1, thereby reducing

potential impacts. Given implementation of this mitigation measure and the APMs described above, impacts under significance criterion F would be **less than significant with mitigation.**

Mitigation Measure GEO-2: Paleontological Resources Survey, Technical Report, and Construction Monitoring.

HWT, PG&E, and/or their contractors shall conduct a paleontological resources survey for any alternative substation sites or 70 kV power line alignments that have not yet been investigated and shall prepare a PRTR documenting the results of the survey. The PRTR shall evaluate the sensitivity of the subject sites or alignments, including identification and review of subsurface geology, literature review and museum records search, and field evaluation of the sites or alignments. The PRTR shall be prepared in accordance with standards provided by the Society for Vertebrate Paleontology and shall assign site sensitivity based on the potential fossil yield classification system utilized by the Bureau of Land Management.

The paleontological resources survey, as documented in the PRTR, shall inform the monitoring, resource protection, and treatment requirements outlined in APM PALEO-1, PALEO-2, PALEO-3, and PALEO-4. HWT, PG&E, and/or their contractors shall implement the recommendations contained in the alternative project's PRTR. Portions of alternative substation sites or 70 kV power line routes identified as having high surface sensitivity for paleontological resources shall receive at least the same level of monitoring as identified for the Proposed Project in APM PALEO-3.

Alternative PLR-1A: Estrella Route to Estrella Substation

Alternative PLR-1A would be similar to the Proposed Project's 70 kV power line but would follow a more northerly route and would be approximately 6.5 miles longer than the proposed 70 kV power line. As shown in Figure 4.7-2, the Alternative PLR-1A route does not traverse any faults, active or otherwise. Because construction and operation of Alternative PLR-1A would not occur on any active fault lines, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, the alternative would not directly or indirectly result in potential substantial adverse effects associated with rupture of a known earthquake fault (criterion A subsection i). Further, there is no substantial evidence indicating that construction and/or operation of Alternative PLR-1A would directly or indirectly exacerbate seismic-related hazards in the area. While construction and operation of Alternative PLR-1A could be subject to strong seismic groundshaking, there is no evidence to suggest these facilities would directly or indirectly cause or exacerbate strong seismic ground shaking (criterion A subsection ii), or seismic-related ground failure (criterion A subsection iii). Alternative PLR-1A is located primarily in areas identified as having low potential for liquefaction (see Figure 4.7-4; criterion A subsection ii). Alternative PLR-1A is located in areas that range between low, moderate, and high landslide risk; however there is no evidence to suggest that construction and operation of the power line would cause landslides or exacerbate the existing landslide hazards (see Figure 4.7-3; criterion A subsection iv). Additionally, the 70 kV power line under Alternative PLR-1A would be operated remotely and would not place any people in a potentially hazardous area. For these reasons, impacts occurring under significance criterion A (subsections i-iv) would be considered **less than significant**.

Because Alternative PLR-1A would disturb more than 1 acre of land, it would require coverage under the Construction General Permit, including preparation and implementation of a SWPPP. As described under Impact GEO-2 above, the BMPs likely to be included in the SWPPP would reduce potential for substantial erosion from construction activities as well as migration of sediments off-site and loss of topsoil. Implementation of APM AIR-3, requiring fugitive dust mitigation measures during construction, would also serve to minimize loss of topsoil and reduce erosion. Overall, impacts under significance criterion B would be **less than significant.**

At this time, there is no indication that the Alternative PLR-1A 70 kV route would be located on an unstable geologic unit or expansive soils, such that construction and/or operation of the Estrella Route would directly or indirectly exacerbate or cause the instability of soils. As part of the alternatives selection and development process conducted for the PEA, the Applicants evaluated this alternative alignment for feasibility and constructability, including site preparation and grading requirements, and did not identify fatal faults with respect to geologic site conditions (NEET West and PG&E 2017). The Alternative PLR-1A route traverses areas of varying topography, including areas with largely low to moderate liquefaction potential (see Figure 4.7-4). Adhering to design and construction requirements in G.O. 95 and 174, as well as the CBC, would ensure hazards associated with unstable geologic units/soils or expansive soils would be minimized. Given that there is no evidence to suggest Alternative PLR-1A would be located on unstable soils, no evidence that construction or operation would result in the instability of soils, and existing design and construction requirements that would be mandated; Alternative PLR-1A components would not exacerbate any existing hazards from unstable geologic units/soils or expansive soils. Therefore, impacts under significance criteria C and D would be **less than significant.**

Alternative PLR-1A would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, **no impact** would occur under significance criterion E.

As described in Table 4.7-4, the Alternative PLR-1A alignment is underlain by Quaternary older alluvium (Qoa) and Paso Robles formation (Qtp), both of which are considered sensitive for paleontological resources. Due to its longer length compared to the proposed 70 kV power line route, Alternative PLR-1A may have increased potential for construction activities to encounter paleontological resources as a result of the increased excavation/ground-disturbance activities. Implementation of APM GEN-1 and APMs PALEO-1 through PALEO-4 would avoid or minimize potential impacts to paleontological resources during construction. Given implementation of the APMs described above, impacts under significance criterion F would be **less than significant.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C would be similar to Alternative PLR-1A, following an identical route for much of its length, but would start at the Bonel Ranch Substation Site. Alternative PLR-1C would be 6 miles longer than the Proposed Project's 70 kV power line. As shown in Figure 4.7-2, the Alternative PLR-1C route does not traverse any faults, active or otherwise; therefore, the alternative would not directly or indirectly result in potential substantial adverse effects associated with rupture of a known earthquake fault (criterion A subsection i). Further, there is no substantial evidence indicating that construction and/or operation of Alternative PLR-1C would directly or indirectly exacerbate seismic-related hazards in the area. While construction and operation of Alternative PLR-1C could be subject to strong seismic groundshaking, there is no evidence to suggest these facilities would directly or indirectly cause or exacerbate strong

seismic ground shaking (criterion A subsection ii), or seismic-related ground failure (criterion A subsection iii). Alternative PLR-1C is located primarily in areas identified as having low potential for liquefaction (see Figure 4.7-4; criterion A subsection ii). Alternative PLR-1C is located in areas that range between low, moderate, and high landslide risk; however there is no evidence to suggest that construction and operation of the substation would cause landslides or exacerbate the existing landslide hazards (see Figure 4.7-3; criterion A subsection iv). Additionally, the 70 kV power line under Alternative PLR-1C would be operated remotely and would not place any people in a potentially hazardous area. For these reasons, impacts occurring under significance criterion A (subsections i-iv) would be considered **less than significant**.

Because Alternative PLR-1C would disturb more than 1 acre of land, it would require coverage under the Construction General Permit, including preparation and implementation of a SWPPP. As described under Impact GEO-2 above, the BMPs likely to be included in the SWPPP would reduce potential for substantial erosion from construction activities as well as migration of sediments off-site and loss of topsoil. Implementation of APM AIR-3, requiring fugitive dust mitigation measures during construction, would also serve to minimize loss of topsoil and reduce erosion. Overall, impacts under significance criterion B would be **less than significant.**

At this time, there is no indication that the Alternative PLR-1C 70 kV route would be located on an unstable geologic unit or expansive soils, or that construction and/or operation of the alternative would directly or indirectly exacerbate or result-in unstable soils. As part of the alternatives selection and development process conducted for the PEA, the Applicants evaluated much of the length of this alternative alignment for feasibility and constructability, including site preparation and grading requirements, and did not identify fatal faults with respect to geologic site conditions (NEET West and PG&E 2017). The Alternative PLR-1C route passes through areas of varying topography and through areas of primarily low to moderate liquefaction potential (see Figure 4.7-4). The Alternative PLR-1C Minor Route Variation 1 segment, in particular, would pass through areas of moderate and high liquefaction potential adjacent to the Estrella River. Adhering to design and construction requirements in G.O. 95 and 174, as well as the CBC, would ensure hazards associated with unstable geologic units/soils or expansive soils are minimized. Given that there is no evidence to suggest Alternative PLR-1C would be located on unstable soils, no evidence that construction or operation would result in the instability of soils, and existing design and construction requirements that would be mandated; Alternative PLR-1C components would not exacerbate any existing hazards from unstable geologic units/soils or expansive soils. Therefore, impacts under significance criteria C and D would be **less than significant.**

Alternative PLR-1C would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, **no impact** would occur under significance criterion E.

As described in Table 4.7-4, the portion of the Alternative PLR-1C alignment evaluated as part of the Estrella Route is underlain by Quaternary older alluvium (Qoa) and Paso Robles formation (Qtp), both of which are considered sensitive for paleontological resources. Due to its longer length compared to the proposed 70 kV power line route, Alternative PLR-1C may have increased potential for construction activities to encounter paleontological resources due to the additional excavation/ground-disturbance activities. Implementation of APM GEN-1 and APMs PALEO-1 through 4 would avoid or minimize potential impacts to paleontological resources during construction, however, if these efforts were not informed by a pre-construction survey

describing the areas of relative sensitivity within the disturbance area, they may be less effective, resulting in a significant impact. Therefore, **Mitigation Measure GEO-2** would require performance of a paleontological resources survey and preparation of a technical report and monitoring plan to inform paleontological resources avoidance and monitoring during construction of Alternative PLR-1C. Mitigation Measure GEO-2, further, requires that the Applicants implement any recommendations contained in the PRTR to be prepared for Alternative PLR-1C, thereby reducing potential impacts. Given implementation of this mitigation measure and the APMs described above, impacts under significance criterion F would be **less than significant with mitigation.**

Alternative PLR-3: Strategic Undergrounding (Both Options)

Alternative PLR-3 would underground an approximately 1.1-mile segment of the proposed 70 kV power line in the area of Golden Hill Road. As shown in Figure 4.7-2, the Alternative PLR-3 alignments (both options) would not cross any active or inactive faults; therefore, the alternative would not directly or indirectly result in potential substantial adverse effects associated with rupture of a known earthquake fault (criterion A subsection i). Further, there is no substantial evidence indicating that construction and/or operation of Alternative PLR-3 would directly or indirectly exacerbate seismic-related hazards in the area. Similar to the Proposed Project, construction and operation of Alternative PLR-3 could be subject to strong seismic groundshaking, however there is no evidence to suggest these facilities would directly or indirectly cause or exacerbate strong seismic ground shaking (criterion A subsection ii), or seismic-related ground failure (criterion A subsection iii). As Alternative PLR-3 follows the same general alignment as the Proposed Project (only undergrounds a segment of the proposed alignment), potential for liquefaction and landslides are the same as the Proposed Project (criterion A subsection ii and iv; see Impact GEO-1 above). Additionally, the underground 70 kV power line under Alternative PLR-3 would be operated remotely and would not place any people in a potentially hazardous area. Therefore, **no impact** would occur under significance criterion A (subsections i-iv).

Construction of Alternative PLR-3, which would be conducted in conjunction with the remainder of the Proposed Project, would disturb more than 1 acre of land. Therefore, it would require coverage under the Construction General Permit, including preparation and implementation of a SWPPP. As described under Impact GEO-2, the BMPs likely to be included in the SWPPP would reduce potential for substantial erosion from construction activities as well as migration of sediments off-site and loss of topsoil. Implementation of APM AIR-3, requiring fugitive dust mitigation measures during construction, would also serve to minimize loss of topsoil and reduce erosion. Overall, impacts under significance criterion B would be **less than significant.**

As noted above, the majority of both Alternative PLR-3 route options would follow, and be installed within, existing roads; therefore, it is unlikely this undergrounding route would encounter unstable geologic/soil conditions or expansive soils such that construction or operation of Alternative PLR-3 could cause the soils beneath to be unstable. The Alternative PLR-3 alignment (both options) is relatively flat and in an area mapped as having low potential for liquefaction. Following the design and construction requirements in G.O. 95 and 174, as well as the CBC, would minimize hazards associated with unstable geologic units/soils or expansive soils. For these reasons, Alternative PLR-3 components would not exacerbate any existing hazards from unstable geologic units/soils or expansive soils. Therefore, impacts under significance criteria C and D would be **less than significant.**

Alternative PLR-3 would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, **no impact** would occur under significance criterion E.

As shown in Figure 4.7-1, both Alternative PLR-3 options are underlain by Paso Robles formation (Qtp) and Quaternary older alluvium (Qoa), both of which are considered sensitive for paleontological resources. As Alternative PLR-3 would involve substantially more excavation and ground disturbance than the same segment of the overhead proposed 70 kV power line, it would have increased potential to encounter paleontological resources during construction compared to the Proposed Project. Nevertheless, implementation of APM GEN-1 and APMs PALEO-1 through PALEO-4 would avoid or minimize potential impacts to paleontological resources during construction, as described in Impact GEO-6. Therefore, impacts under significance criterion F would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – New 230/70 kV Substation

The substation sited at the Templeton Substation Expansion Site under Alternative SE-1A would include roughly the same features/components and footprint as the proposed Estrella Substation. As such, it would involve roughly the same amount of excavation work and same construction processes as proposed for the Estrella Substation. As shown in Figure 4.7-2, no faults traverse the immediate Templeton Substation Expansion site; however, the potentially active Rinconada Fault occurs in fairly close proximity (approximately 1 mile) to the site. While construction and operation of Alternative SE-1A could be subject to strong seismic groundshaking, there is no evidence to suggest these facilities would directly or indirectly cause or exacerbate seismic-related hazards (criterion A subsection i), strong seismic ground shaking (criterion A subsections ii), or seismic-related ground failure (criterion A subsection iii). The Templeton Substation Expansion Site is located in an area identified as having low potential for liquefaction (see Figure 4.7-4; criterion A subsection ii). The Templeton Substation Expansion Site is located in an area designated as having high potential for landslide risk, however there is no evidence to suggest that construction and operation of the substation would cause landslides or exacerbate the existing landslide hazards (see Figure 4.7-3; criterion A subsection iv). Although a rupture of the Rinconada Fault could subject the substation under Alternative SE-1A to strong seismic ground shaking, or subsequent seismic-related hazards such as landslides, construction and operation of the substation would not reasonably cause an earthquake or exacerbate any seismic-related hazards in the area. Additionally, the substation would be operated remotely and would not place any people in a potentially hazardous area. Therefore, **no impact** would occur under significance criterion A (subsections i-iv).

Because Alternative SE-1A would disturb more than 1 acre of land, it would require coverage under the Construction General Permit, including preparation and implementation of a SWPPP. As described under Impact GEO-2, typical BMPs included in a SWPPP would reduce potential for substantial erosion from construction activities as well as migration of sediments off-site and loss of topsoil. Implementation of APM AIR-3, requiring fugitive dust mitigation measures during construction, would also serve to minimize loss of topsoil and reduce erosion. Topsoil reuse is not feasible within the fenced substation area; however, topsoil would be conserved at exterior temporary work areas where applicable. Overall, impacts under significance criterion B would be **less than significant.**

At this time, there is no indication that the Templeton Substation Expansion Site is located on an unstable geologic unit or expansive soils or that construction and operation of the substation

under Alternative SE-1A would cause instability to existing soils. The Alternative SE-1A site is relatively flat and identified as having moderate liquefaction potential (see Figure 4.7-4). Following the design and construction requirements in G.O. 95 and 174, as well as the CBC, would minimize hazards associated with unstable geologic units/soils or expansive soils. Regardless, the Alternative SE-1A components would not exacerbate any existing hazards from unstable geologic units/soils or expansive soils. Therefore, impacts under significance criteria C and D would be **less than significant.**

Alternative SE-1A would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, **no impact** would occur under significance criterion E.

As described in Section 4.7.3, geologic mapping indicates that the Alternative SE-1A site is underlain by Pleistocene-aged older alluvium, and Paso Robles Formation may occur in the subsurface underlying this older alluvium. Based on museum record searches and other information, these geologic units were both assigned PFYC Class 4, indicating they are sensitive for paleontological resources (refer to Table 4.7-5). While this indicates that excavation/ground-disturbing activities for construction of Alternative SE-1A could potentially encounter paleontological resources, implementation of APM GEN-1 and APMs PALEO-1 through PALEO-4 would avoid or substantially reduce potential impacts to such resources. Therefore, impacts under significance criterion F would be **less than significant.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Alternative SE-PLR-2 would be approximately 4.8 miles shorter than the Proposed Project's 70 kV power line and would connect the expanded substation under Alternative SE-1A to Paso Robles Substation. As shown in Figure 4.7-2, the Alternative SE-PLR-2 route would occur in close proximity to the Rinconada Fault for much of its length and would cross the fault line near the intersection of El Pomar Road and South River Road. The Rinconada Fault is not considered active under the Alquist-Priolo Earthquake Zoning Act but is thought to be capable of producing a 7.3 magnitude earthquake. As discussed previously, while the new 70 kV power line under Alternative SE-PLR-2 could be subjected to strong seismic ground shaking from a rupture along the Rinconada Fault, these new facilities would not cause an earthquake or exacerbate the existing seismic-related hazards. There is no substantial evidence indicating that construction and/or operation of Alternative SE-PLR-2 would directly or indirectly exacerbate seismic-related hazards in the area (criterion A subsection i). While construction and operation of Alternative SE-PLR-2 could be subject to strong seismic groundshaking, there is no evidence to suggest these facilities would directly or indirectly cause or exacerbate strong seismic ground shaking (criterion A subsection ii) or seismic-related ground failure (criterion A subsection iii). Alternative SE-PLR-2 is located primarily in areas identified as having low potential for liquefaction (see Figure 4.7-4; criterion A subsection ii). Alternative SE-PLR-2 is located in areas that range between low, moderate, and high landslide risk; however, there is no evidence to suggest that construction and operation of the power line would cause landslides or exacerbate the existing landslide hazards (see Figure 4.7-3; criterion A subsection iv). Additionally, the 70 kV power line under Alternative SE-PLR-2 would be operated remotely and would not place any people in a potentially hazardous area. Therefore, **no impact** would occur under significance criterion A (subsections i-iv).

Because Alternative SE-PLR-2 would disturb more than 1 acre of land, it would require coverage under the Construction General Permit, including preparation and implementation of a SWPPP.

As described under Impact GEO-2 above, the BMPs likely to be included in the SWPPP would reduce potential for substantial erosion from construction activities as well as migration of sediments off-site and loss of topsoil. Implementation of APM AIR-3, requiring fugitive dust mitigation measures during construction, would also serve to minimize loss of topsoil and reduce erosion. Overall, impacts under significance criterion B would be **less than significant.**

At this time, there is no indication that the Alternative SE-PLR-2 route would be located on an unstable geologic unit or expansive soils, such that construction or operation of the alternative alignment would cause direct or indirect adverse impacts to stability. The Alternative SE-PLR-2 route passes through areas of varying topography, including some hilly areas, and through areas of primarily moderate to high landslide potential (see Figure 4.7-3) and low liquefaction potential (see Figure 4.7-4). Following the design and construction requirements in G.O. 95 and 174, as well as the CBC, would minimize hazards associated with unstable geologic units/soils or expansive soils. Given that there is no evidence to suggest Alternative SE-PLR-2 would be located on unstable soils, no evidence that construction or operation would result in the instability of soils, and the adherence required for design and construction requirements; Alternative SE-PLR-2 components would not exacerbate any existing hazards from unstable geologic units/soils or expansive soils. Therefore, impacts under significance criteria C and D would be **less than significant.**

Alternative SE-PLR-2 would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, **no impact** would occur under significance criterion E.

As described in Table 4.7-6, several of the geologic units underlying or in the vicinity of the Templeton Route Alternatives (including Alternative SE-PLR-2) are sensitive for paleontological resources (PFYC Class 4), including Pleistocene-aged older alluvium (Qoa), Pliocene/Pleistocene-aged Paso Robles Formation (Qtp), and Miocene-aged Monterey Formation (Tm). Due to the shorter length of Alternative SE-PLR-2, it could have reduced potential to encounter paleontological resources compared to the Proposed Project (due to the lesser amount of excavation/ground-disturbing work); however, due to the sensitivity of underlying units, paleontological resources could be uncovered and adverse effects could occur if proper protocols are not followed. As described in Impact GEO-6, APM GEN-1 and APMs PALEO-1 through PALEO-4 would be implemented and would avoid or minimize potential impacts to paleontological resources during construction. Therefore, impacts under significance criterion F would be **less than significant.**

Alternative BS-2: Battery Storage to Address the Distribution Objective

The ultimate size of FTM BESS facilities under Alternative BS-2 is not yet determined and would depend on future load growth in the Paso Robles area. In most cases, the FTM BESSs are likely to be substantially smaller than the proposed Estrella Substation. Each of the example FTM sites under consideration is located on vacant parcels or portions of parcels that are relatively flat. Example FTM Sites 1-4 are located within existing development near downtown Paso Robles, while FTM Site 5 is adjacent to the CAL FIRE Air Attack Base and FTM Sites 6-8 are all located adjacent to existing area substations.

Those FTM sites examined as part of the DEIR would have similar proximity to regional faults as the Proposed Project and other alternatives. FTM Site 6 is located at the existing Templeton Substation and would be the same distance to the Rinconada Fault as Alternative SE-1A. As

such, any of the FTM BESSs could experience strong ground shaking due to an earthquake along the Rinconada Fault or one of the other regional faults (e.g., San Andreas, Oceanic). However, there is no indication that construction or operation of FTM BESSs under Alternative BS-2 would cause an earthquake or exacerbate any existing seismic-related hazards in the region, strong seismic ground shaking, seismic-related ground failure, or impacts related to liquefaction and landslide risk. Additionally, the FTM BESSs would be operated remotely and would not place any people in a potentially hazardous area.

Given that the individual FTM BESSs, and cumulative development of FTM BESSs under Alternative BS-2, may not exceed 1 acre of ground disturbance, construction of Alternative BS-2 may not require coverage under the Construction General Permit, which requires development and implementation of a SWPPP, and typically adherence to erosion control and sedimentation measures. It is assumed, however, that all applicable federal, state, and local laws would be followed during BESS construction, including local best management practices related to fugitive dust management. FTM BESS facilities are minimal in size and, therefore, are likely to have less potential to result in adverse impacts related to erosion or the loss of topsoil.

Two of the illustrative FTM sites (5 and 6) are located in areas designated as having high potential for landslides (see Figure 4.7-3), although the sites themselves are relatively flat. The FTM sites also are mapped as having low to moderate potential for liquefaction. In general, following the design and construction requirements in G.O. 95 and 174, as well as the CBC, would minimize hazards associated with unstable geologic units/soils or expansive soils. Further, as explained above, there is no evidence to suggest Alternative BS-2 components would exacerbate existing hazards from unstable geologic units/soils or expansive soils. Alternative BS-2 would not require the use of septic tanks or alternative wastewater disposal systems.

As shown in Figure 4.7-1, several of the illustrative FTM sites are underlain by geologic units that are sensitive for paleontological resources, such Pleistocene-aged older alluvium (Qoa) and Paso Robles Formation (Qtp). Because excavation, grading, and other ground-disturbing activities are required for construction of individual FTM BESS facilities, construction of the FTM facilities could result in direct or indirect impacts to paleontological resources. Once constructed, the BESS facilities under Alternative BS-2 would not require substantial excavation, grading, or other ground-disturbing activities; thus, impacts to paleontological resources during operation or maintenance would not be expected.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

The specific locations of individual BTM solar or BESS facilities are unknown and would depend on which customers choose to participate in a BESS program. Thus, the geologic conditions of individual BTM sites; proximity of BTM facilities to known earthquake faults; susceptibility of sites to landslides, liquefaction, and other geologic hazards, and potential for excavation associated with BTM facility construction to encountered paleontological resources is unknown.

In general, individual BTM facilities under Alternative BS-3 are anticipated to be installed within existing buildings and would be relatively small units in most cases that could fit on a wall or on the roof. In some cases, particularly for commercial or industrial customers that choose to participate in the BESS program, BTM BESSs could be larger units that may require a foundation and could be installed in undeveloped portions of existing parcels. Even in these cases, the potential for substantial adverse effects related to geology, soils, seismicity, and paleontological resources to occur from construction and operation of BTM solar and BESS facilities is considered low because installation would require minimal construction activities that require earthwork, such as grading and excavating. Individual BTM solar and BESS facilities would need to be designed and constructed in accordance with the CBC and generally would not be expected to decrease any existing structure's stability.

There is no evidence to suggest that construction and/or operation of BTM facilities under Alternative BS-3 would directly or indirectly cause earthquakes or exacerbate any seismic-related hazards, strong seismic ground shaking, seismic-related ground failure, or significant impacts related to liquefaction and landslide risk. Additionally, Alternative BS-3 would not require use of septic tanks or alternative wastewater disposal systems. Given the small scale of individual BTM projects, these activities would be unlikely to result in substantial erosion or loss of topsoil. Additionally, BTM facilities would be constructed in accordance with the CBC, thereby minimizing potential hazards from being located on unstable units or expansive soils. There is no evidence to suggest that the construction or operation of BTM facilities would exacerbate existing geologic hazards. Finally, because BTM facilities would be installed on or within existing buildings, or potentially in small unused portions of existing properties, they would be unlikely to uncover or result in significant adverse impacts to paleontological resources.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

4.8 Greenhouse Gas Emissions

4.8.1 Introduction

This section describes the regulatory and environmental setting related to GHG emissions and then evaluates impacts related to the Proposed Project's forecasted GHG emissions. The impacts analysis also considers the GHG emissions impacts associated with the reasonably foreseeable distribution components and alternatives.

4.8.2 Regulatory Setting

Federal Laws, Regulations, and Policies

Corporate Average Fuel Economy and GHG Emissions Standards

As described in Section 4.6, "Energy," the federal government has developed regulations to improve the efficiency of, and reduce GHG emissions from, motor vehicles. The CAFE and GHG emissions standards promulgated by the NHTSA and USEPA have been rolled out in several phases and for different weight classes. On August 9, 2011, USEPA and the NHTSA announced standards to reduce GHG emissions and improve fuel efficiency for heavy-duty trucks and buses. In August 2016, USEPA and the NHTSA jointly finalized Phase 2 Heavy-Duty National Program standards to reduce GHG emissions and improve fuel efficiency of medium- and heavy-duty vehicles for model year 2018 and beyond (USEPA 2020a). In April 2020, NHTSA and USEPA amended the CAFE and GHG emission standards for passenger cars and light trucks and established new less stringent standards, covering model years 2021 through 2026 (USEPA 2020b).

GHG Emissions Reporting

The USEPA has implemented a mandatory GHG emission reporting regulation (40 CFR Part 98), which requires certain industries to report their annual GHG emissions. Electrical utilities are required to report emissions associated with their operations.

State Laws, Regulations, and Policies

Global Warming Solutions Act

In 2006, the California State Legislature enacted Assembly Bill (AB) 32, the Global Warming Solutions Act, which set the overall goals for reducing California's GHG emissions to 1990 levels by 2020. AB 32 required that the CARB develop a Scoping Plan (see below) which lays out California's strategies for meeting the emissions reduction goals. The Scoping Plan must be updated every five years. Since the passage of the Global Warming Solutions Act in 2006, subsequent bills and executive orders have further modified the GHG emission reduction goals to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. Executive Order (EO) S-3-05 established a goal of 80 percent below 1990 levels by 2050. EO B-30-15 established an interim target to reduce California's GHG emissions to 40 percent below 1990 levels by 2030, and the 2030 target has been codified in Senate Bill (SB) 32, which was signed

into law on September 8, 2016. Along with SB 32, AB 197 was also signed into law on September 8, 2016, and requires the state to focus its pollution-reduction efforts on disadvantaged communities and to increase legislative oversight of climate programs.

Climate Change Scoping Plan

In 2008, CARB approved the initial Scoping Plan, developed pursuant to AB 32, which included a suite of measures to sharply cut GHG emissions. The First Update to the AB 32 Scoping Plan was adopted in 2014, which, among other things, highlighted California's progress toward meeting the GHG emission reduction goals and evaluated how to align the State's longer term GHG reduction strategies with other state policy priorities for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014). CARB has subsequently released and adopted a 2017 Scoping Plan Update to reflect the 2030 GHG emissions reduction target (CARB 2020a).

Renewable Portfolio Standard

As described in Section 4.6, *Energy,* the RPS requires electricity suppliers to increase the amount of electricity generated from renewable sources. In 2018, SB 100 updated the RPS to require 50 percent renewable resources by the end of 2026, 60 percent by the end of 2030, and 100 percent renewable energy and zero carbon resources by 2045.

Mandatory GHG Reporting Regulation and California Cap-and-Trade Program

The Mandatory Reporting Regulation requires reporting of GHG emissions by major sources, including electricity generators, industrial facilities, fuel suppliers, and electricity importers. Reported GHG emissions must be verified by a third party. GHG emissions and other key product data required to be reported under this regulation are used to determine of emissions and allowances used in the Cap-and-Trade Program.

The Cap-and-Trade Program is implemented by CARB and is a key element of California's strategy to reduce GHG emissions. The Cap-and-Trade Program requires certain industries, including electrical utilities, to provide emission allowances for their annual GHG emissions (one allowance equals one metric ton of carbon dioxide equivalent [CO_2e] emissions) (CARB 2020b). CARB gives a certain number of free allowances to industries based on their efficiency of operation which decreases over time. Companies participate in allowance auctions to secure any additional GHG allowances that they require to cover their emissions. The price of GHG allowances is set to a minimum and increases over time.

Gas Insulated Switches Regulation

CARB has implemented the gas insulated switches (GIS) regulation to control emissions of sulfur hexafluoride (SF_6). This requires facilities to track the number and type of GIS as well as report any changes in SF_6 levels. There is a maximum allowed threshold for SF_6 emissions from GIS. Changes to the GIS regulation are being considered including future prohibition on SF_6 containing switches but these have not been finalized at this time.

4.8.3 Environmental Setting

Global Climate Change

"Global climate change" and "global warming" are terms that describe changes in the Earth's climate. A global climate change could be, for example, an increase or decrease in temperatures, the start or end of an ice age, or a shift in precipitation patterns. The term global warming is more specific and refers to a general increase in temperatures across the Earth. Although global warming is characterized by rising temperatures, it can cause other climatic changes, such as a shift in the frequency and intensity of rainfall or hurricanes. Global warming does not necessarily imply that all locations will be warmer. Some specific locations may be cooler even though the Earth, on average, is warming. All of these climatic changes fit under the umbrella of global climate change.

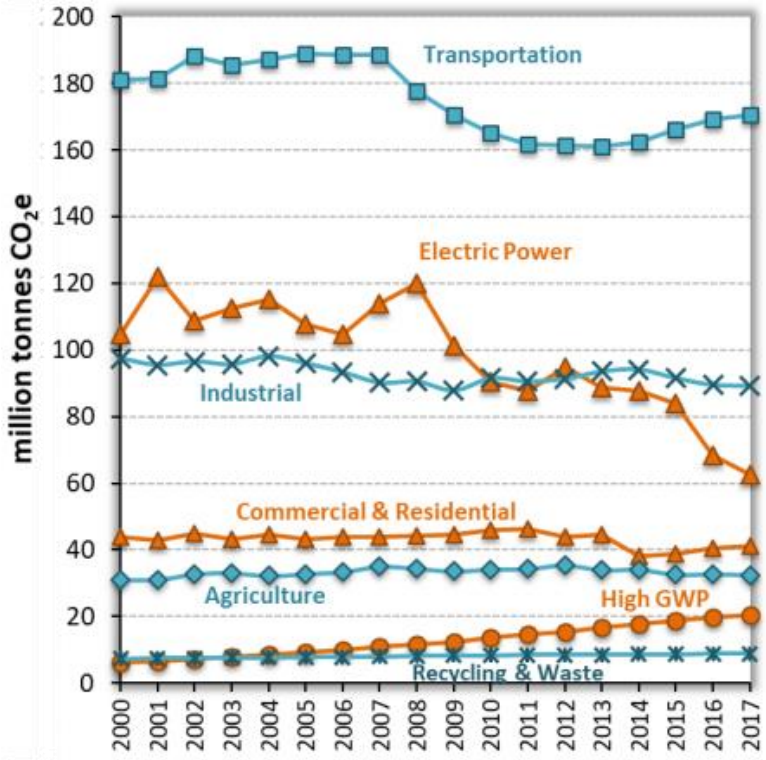
It is widely acknowledged that GHGs play a significant role in the global warming trend that has been observed over the last several decades. GHGs, such as carbon dioxide (CO_2), methane, and nitrogen oxide (N_2O), trap heat that is emitted from the Earth's surface, creating a "greenhouse effect" (National Aeronautics and Space Administration [NASA] 2020). Water vapor is the most abundant GHG, but it functions more as a "feedback" since it changes physically or chemically in response to temperature. By contrast, GHGs such as CO_2, methane, N_2O, and others may remain semi-permanently in the atmosphere and thereby act as a "forcing" of climate change (NASA 2020). In general, about half the light reaching the Earth's atmosphere passes through the air and clouds to the surface, where it is absorbed and then radiated upward in the form of infrared heat (NASA 2020). About 90 percent of this heat is then absorbed by the GHGs and radiated back toward the surface.

The scientific consensus is that present-day global warming is primarily the result of human activity on the planet, and specifically, is the result of increased concentrations of GHGs in the atmosphere due to human activities (International Panel on Climate Change [IPCC] 2014). According to the IPCC's Fifth Assessment Report: Climate Change 2014, the globally averaged combined land and ocean surface temperature data as calculated by a linear trend show a warming of 0.85 degrees Celsius over the period 1880 to 2012. It is extremely likely that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (IPCC 2014).

GHG Emissions

In 2017, total California GHG emissions were 424 million metric tons (MMT) CO_2e (CARB 2019). This represents a decrease from 2016 and a 14 percent reduction compared to peak levels reached in 2004. Declining emissions from the electricity sector were responsible for much of the reduction. The transportation sector continues to be the largest source of emissions in California, accounting for approximately 40 percent of the total (CARB 2019). Figure 4.8-1 shows trends in California GHG emissions since 2000, while Figure 4.8-2 shows a breakdown of GHG emissions by Scoping Plan category.

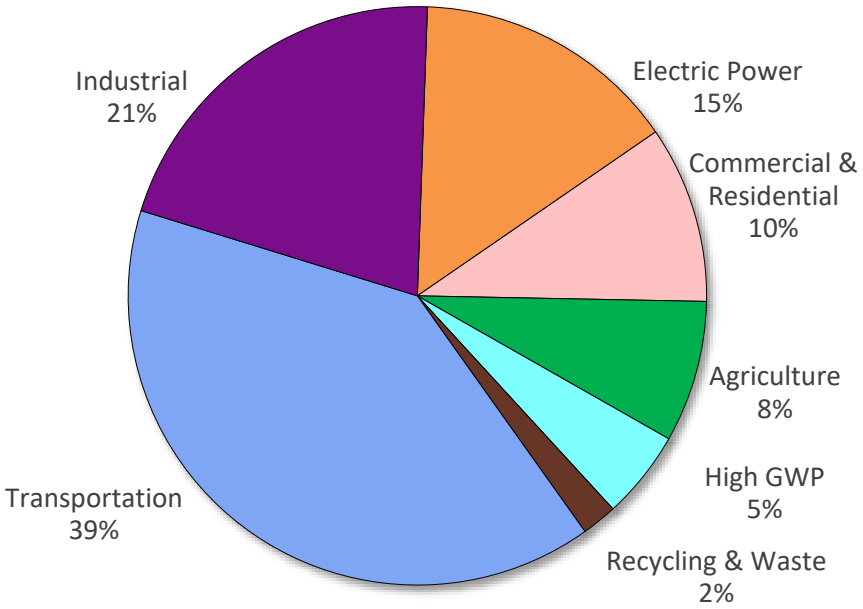
Figure 4.8-1. Trends in California GHG Emissions



Notes: CO2e = carbon dioxide equivalents

Source: CARB 2019

Figure 4.8-2. GHG Emissions by Scoping Plan Category



Notes: GWP = global warming potential

Source: CARB 2019

Emissions trends and distribution by sector in San Luis Obispo County are similar to that in the State as a whole. In 2013, San Luis Obispo County GHG emissions were 1.76 MMT CO_2e, which equated to a decrease of roughly 10 percent from 2006 (San Luis Obisbo County 2016). PG&E, which provides electricity to the county, obtains power from both GHG-emitting and non-GHG-emitting sources (see Table 4.6-1 in Section 4.6, "Energy").

4.8.4 Impact Analysis

Methodology

The impacts analysis used both quantitative and qualitative methods to evaluate the GHG emissions of the Proposed Project, reasonably foreseeable distribution components, and alternatives. Where possible, GHG emissions were estimated as follows:

- Construction emissions were estimated using CalEEMod version 2016.3.2. CalEEMod is an emissions model that estimates GHG emissions for land use development projects but can be used for other types of projects. CalEEMod incorporates both CARB's EMFAC for vehicles and current off-road in-use engine emissions model for construction equipment. Potential overlap in construction phases was considered if it was relevant to making a specific significance determination. Since construction was modeled for work to start in 2021 and changes would be less than 1 percent, no adjustments were made for the recently adopted SAFE Vehicles Rule, which is a joint NHTSA and USEPA rule. Detailed assumptions that informed the modeling and the modeling results are included in Appendix C of this DEIR.

- Helicopter emissions were estimated following the FAA's recommended methods consistent with their AEDT version 3c. A Sikorsky S92A helicopter was used to represent a typical helicopter type used in utility construction projects, as emission factors are readily available for this engine model. The helicopter was assumed to operate for 132 days with up to 10-hour days and it was assumed to have up to 20 LTOs per day. Detailed helicopter emission calculations are available in Appendix C of this DEIR.

- Operational GHG emissions would primarily come from SF_6 GIS and equipment used at the substations and power lines. These emissions were estimated using the volume of SF_6 that would be used in the equipment and assuming the maximum allowed leak rate under current regulations of 1 percent. Other operational emissions such as the transmission line distribution losses and energy used to power the equipment, control, and HVAC systems as part of the project are typically assessed at the larger corporate entity level resulting from the difference between generated and delivered energy. There was not sufficient detail available at this time to estimate the distribution loss and other energy use at the individual substation level. Based on information in PG&E's 2019 Corporate Responsibility and Sustainability Report, the 2017 system-wide percentage for PG&E for the transmission and distribution losses and facility electricity use is 4.5 percent of the total delivered electricity GHG emissions.

- Construction emissions (including helicopter emissions) were amortized over the life of the Proposed Project (assumed to be 30 years) and combined with operational emissions to determine the annual average emissions.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in a significant impact related to GHG emissions if they would:

A. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

B. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.

GHG emissions are, by their nature, cumulative impacts. Consequently, the cumulative analysis is the same as the discussion concerning Proposed Project impacts. The SLOCAPCD has established thresholds of significance for GHG emissions, including a threshold of 10,000 metric ton (MT) CO_2e/yr from industrial/stationary sources. The SLOCAPCD thresholds of significance are used as the SLOCAPCD is the air district in charge of setting air quality and GHG emission thresholds for the air basin that the project is located in. Construction emissions do not have a specific threshold, but are typically amortized over the life of the project and added to the annual emissions. In addition, as a mandatory reporter under the California mandatory reporting regulation and an entity subject to California Cap-and-Trade, the project would not be significant if it is consistent and following these regulations since these regulations are designed to achieve the goals of AB 32 and SB 32 for industrial sources.

Environmental Impacts

Proposed Project

Impact GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment – *Less than Significant*

Construction of the Proposed Project would generate GHG emissions from operation of fossil-fueled construction equipment and vehicles, as well as helicopters. Additionally, use of SF_6 GIS and equipment would result in GHG emissions during the operation phase. These emissions were estimated and are shown in Table 4.8-1 with additional detail shown in Appendix C.

Table 4.8-1. Proposed Project GHG Emissions

Phase	GHG Emissions (Metric Tons CO_2e)
Ground-Based Construction Emissions	2,025
Helicopter Emissions	699
Total Construction Emissions	2,724
Amortized Construction Emissions	91
SF_6 Gas Insulated Switches and Equipment	96
Total Annualized Emissions	187

Notes: CO2e = carbon dioxide equivalents; SF6 = sulfur hexafluoride

As shown in Table 4.8-1, construction of the Proposed Project would result in emissions of 2,724 MT CO_2e over the 18-month construction period. Amortized over the 30-year life of the Proposed Project facilities, this equates to 91 MT CO_2e annually. When added to the quantified GHG emissions associated with GISs and equipment, this results in total annualized emissions of 187 MT CO_2e, which is well below the SLOCAPCD threshold of 10,000 MT CO_2e per year.

Other direct emissions associated with the Proposed Project that could not be quantified include emissions from fossil fuel-powered equipment and motor vehicles used during occasional maintenance and inspection activities.

While any GHG emissions can contribute to global climate change to some degree, the Proposed Project's GHG emissions from operation would be relatively minor and the Proposed Project would not create a substantial permanent source of emissions. Other operational GHG emissions for the substation and transmission lines would be minimal and were not quantified since adequate information is not available to make a reasonable estimate. These emissions include fossil fueled equipment and motor vehicles used for occasional maintenance and inspection, which is estimated to be less than once a month. Transmission and distribution losses as well as equipment energy use to operate the substation and transmission lines are a small percentage of PG&E's total electricity-based operation GHG emissions. The Proposed Project represents a small change to the total amount of substations and transmission lines for PG&E. These operational indirect emissions are not quantified as they are not released locally, but rather represent an overall loss of efficiency and are taken into account in the average carbon intensity of delivered electricity.

The Proposed Project would not generate electricity, but rather would transmit electricity that could be produced either via GHG-emitting or non-GHG-emitting sources. Several APMs would serve to reduce the Proposed Project's GHG emissions during construction and operation, including APMs AIR-1 and GHG-1. For instance, the use of alternatively-fueled construction equipment and limitation of vehicle idling (APM AIR-1) would reduce GHG emissions during construction. Under APM GHG-1, PG&E and HWT would incorporate Estrella Substation into their respective system-wide SF_6 emission reduction programs. Additionally, APM GHG-1 would require that the breakers at Estrella Substation have a manufacturer's guaranteed maximum leakage rate of 0.5 percent per year or less for SF_6. No reduction in emissions were included

since the current regulation allows up to 1 percent leak rate and it is not known how the vendor guarantee leak rate would perform in the field over time or specific information on how this is achieved and would be enforced.

Overall, the Proposed Project's GHG emissions during construction and operation would be below the SLOCAPCD threshold of significance. As a result, neither a significant project-level nor cumulative impact would occur. This impact would be **less than significant.**

Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs – *Less than Significant*

The construction and operation of the project would result in GHG emissions, but these would not impede the implementation of statewide GHG goals and policies specifically outlined in AB 32 and SB 32 which codifies the goals of Executive Orders S-3-05 and B-30-15. The project's emissions would be below the industrial source threshold established by SLOCAPCD and the entity (PG&E) overall is subject to GHG mandatory reporting regulations, cap-and-trade, and other statewide regulations such as SF_6 gas insulated equipment. Cap-and-trade regulation as well as implementation of any adopted industry-specific regulations ensures that GHG emissions associated with electricity and other industrial sources are doing their fair share to reach the statewide goals of AB 32 and SB 32. The project would not impede the regulations and policies aimed at decarbonizing the electricity supply such as the RPS as it does not involve generation of electricity. GHG emissions from construction equipment use are one-time emissions and would cease once construction of the project is complete. Any future regulations that may impact operational emissions that may be implemented as part of the statewide goals of SB 32 must be complied with by the project if applicable. Therefore, the project would not conflict with any applicable plans, policies or regulations adopted for the purpose of reducing GHG emissions, and the impact would be **less than significant.**

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

Construction and operation activities for the reasonably foreseeable distribution components would be similar to the Proposed Project, but on a much smaller scale. Installation of poles would require much less effort and equipment use than that for the 70 kV poles and only 1.7 miles of new distribution line would be constructed. Likewise, installation of the additional 21/12 kV transformers would require minimal site preparation and grading, while the work within the substation would require limited new ground disturbance. Some GIS could be included as part of the reasonably foreseeable distribution components, but these would be far fewer than for the Proposed Project, and thus would have reduced potential for SF_6 emissions. As such, the GHG emissions associated with the reasonably foreseeable distribution components would represent a small fraction of the Proposed Project's emissions. The Applicants would implement APM AIR-1 and GHG-1, which would reduce or minimize emissions, but regardless, the emissions would be well below the SLOCAPCD's significance threshold of 10,000 MT CO_2e. Ultimate buildout of the Estrella Substation similarly would involve activities on a smaller scale than the Proposed Project. Some ground disturbance would be required for constructing the new equipment (e.g., transformer, breakers, switches, etc.) foundations and substation wiring, which would result in some GHG emissions from operation of construction equipment. Construction activities and associated GHG emissions from any additional

distribution feeders or 70 kV power lines that could be facilitated through ultimate substation buildout are speculative at this time as the routes of these lines are unknown. Therefore, impacts under significance criterion A would be **less than significant.**

Like the Proposed Project, the GHG emissions from the reasonably foreseeable distribution components and ultimate substation buildout would be largely one-time, construction-related emissions that would not substantially affect the State's ability to achieve its GHG emissions reductions goals. The reasonably foreseeable distribution components would be below the industrial source threshold established by SLOCAPCD and the entity (PG&E) overall is subject to GHG mandatory reporting regulations, cap-and-trade, and other statewide regulations such as SF6 gas insulated equipment. Cap-and-trade regulation as well as implementation of any adopted industry-specific regulations ensures that GHG emissions associated with electricity and other industrial sources are doing their fair share to reach the statewide goals of AB 32 and SB 32. The project would not impede the regulations and policies aimed at decarbonizing the electricity supply such as the RPS as it does not involve generation of electricity. GHG emissions from construction equipment use are one-time emissions and would cease once construction of the project is complete. Any future regulations that may impact operational emissions that may be implemented as part of the statewide goals of SB 32 must be complied with by the project if applicable. As a result, impacts under significance criterion B would be **less than significant.**

Alternatives

No Project Alternative

Under the No Project Alternative, no new substation or new/reconductored power line would be constructed. Therefore, there would be no construction-related GHG emissions or potential for increased operational emissions during maintenance and operations. There would be no effect regarding conflicts with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Therefore, **no impact** would occur under either significance criteria A or B.

Alternative SS-1: Bonel Ranch Substation Site

Alternative SS-1 would have slightly higher potential for GHG emissions during construction compared to the proposed Estrella Substation due to the slightly longer 230 kV interconnection, necessitating approximately one additional month of construction. Additionally, due to the Bonel Ranch Substation Site's close proximity to the Estrella River, it is possible that soft/unsuitable soils may be encountered, requiring greater excavation, off-haul, and/or import of soils (and associated GHG emissions). The GHG emissions from construction of Alternative SS-1 would need to increase more than four times compared to the Proposed Project, to exceed 10,000 MT per year, before amortization. Thus, it is unlikely even with the increased construction activity that Alternative SS-1's GHG emissions would come close to approaching this level of increase. Apart from these factors, the substation under Alternative SS-1 would be largely similar to the Estrella Substation, and would involve a similar number of vehicle trips during operation and maintenance activities. Even with the additional construction activity, it is unlikely that Alternative SS-1 would result in annualized GHG emissions above the 10,000 MT CO_2e threshold. Like the Proposed Project, APMs AIR-1 and GHG-1 would be implemented to reduce or minimize emissions during construction and operation of Alternative SS-1. Therefore, impacts under significance criterion A would be **less than significant**.

Like the Proposed Project, the GHG emissions from Alternative SS-1 would be largely one-time, construction-related emissions that would not substantially affect the State's ability to achieve its GHG emissions reductions goals. Alternative SS-1 emissions would be below the industrial source threshold established by SLOCAPCD and the entity (PG&E) overall is subject to GHG mandatory reporting regulations, cap-and-trade, and other statewide regulations such as SF6 gas insulated equipment. Cap-and-trade regulation as well as implementation of any adopted industry-specific regulations ensures that GHG emissions associated with electricity and other industrial sources are doing their fair share to reach the statewide goals of AB 32 and SB 32. The alternative would not impede the regulations and policies aimed at decarbonizing the electricity supply such as the RPS as it does not involve generation of electricity. GHG emissions from construction equipment use are one-time emissions and would cease once construction of the alternative is complete. Any future regulations that may impact operational emissions that may be implemented as part of the statewide goals of SB 32 must be complied with by the alternative if applicable. As a result, impacts under significance criterion B would be **less than significant.**

Alternative PLR-1A: Estrella Route to Estrella Substation

Due to its longer length (approximately 6.5 miles longer) and duration of construction (16 months longer), Alternative PLR-1A would have greater construction-related GHG emissions compared to the Proposed Project. The additional construction activity (e.g., site preparation, excavation) for installation of additional 70 kV poles would involve use of fossil fuel-power equipment that would emit GHGs, while the longer construction duration would equate to additional worker commute trips, each of which would emit some amount of GHGs. However, the GHG emissions from construction of Alternative PLR-1A would need to increase more than four times compared to the Proposed Project to exceed 10,000 MT per year before amortization. Thus, it is unlikely even with the increased construction activity that Alternative PLR-1A's GHG emissions would come close to approaching this level of increase. Once constructed, operation and maintenance of Alternative PLR-1A would involve a similar number and frequency of vehicle trips compared to the Proposed Project's 70 kV power line. Even with the increased construction activities, it is unlikely that Alternative PLR-1A would result in annualized GHG emissions above the 10,000 MT CO_2e threshold. Like the Proposed Project, APMs AIR-1 and GHG-1 would be implemented, which would reduce or minimize GHG emissions during construction and operation of Alternative PLR-1A. As a result, impacts under significance criterion A would be **less than significant**.

Like the Proposed Project, the GHG emissions from Alternative PLR-1A would be largely one-time, construction-related emissions that would not substantially affect the State's ability to achieve its GHG emissions reductions goals. Alternative PLR-1A emissions would be below the industrial source threshold established by SLOCAPCD and the entity (PG&E) overall is subject to GHG mandatory reporting regulations, cap-and-trade, and other statewide regulations such as SF6 gas insulated equipment. Cap-and-trade regulation as well as implementation of any adopted industry-specific regulations ensures that GHG emissions associated with electricity and other industrial sources are doing their fair share to reach the statewide goals of AB 32 and SB 32. The alternative would not impede the regulations and policies aimed at decarbonizing the electricity supply such as the RPS as it does not involve generation of electricity. GHG emissions from construction equipment use are one-time emissions and would cease once construction of the alternative is complete. Any future regulations that may impact operational emissions that

may be implemented as part of the statewide goals of SB 32 must be complied with by the alternative if applicable. As a result, impacts under significance criterion B would be **less than significant.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C would be similar in length to Alternative PLR-1A and would require a similarly extended construction duration compared to the Proposed Project. As such, the alternative would similarly result in increased construction-related GHG emissions compared to the Proposed Project. The additional construction activity (e.g., site preparation, excavation) for installation of additional 70 kV poles would involve use of fossil fuel-power equipment that would emit GHGs, while the longer construction duration would equate to additional worker commute trips, each of which would emit some amount of GHGs. However, the GHG emissions from construction of Alternative PLR-1C would need to increase more than four times compared to the Proposed Project to exceed 10,000 MT per year before amortization. Thus, it is unlikely even with the increased construction activity that Alternative PLR-1A's GHG emissions would come close to approaching this level of increase. Once constructed, operation and maintenance of Alternative PLR-1C would involve a similar number and frequency of vehicle trips compared to the Proposed Project's 70 kV power line. Even with the increased construction activities, it is unlikely that Alternative PLR-1C would result in annualized GHG emissions above the 10,000 MT CO_2e threshold. Like the Proposed Project, APMs AIR-1 and GHG-1 would be implemented, which would reduce or minimize GHG emissions during construction and operation of Alternative PLR-1C. As a result, impacts under significance criterion A would be **less than significant**.

Like the Proposed Project, the GHG emissions from Alternative PLR-1C would be largely one-time, construction-related emissions that would not substantially affect the State's ability to achieve its GHG emissions reductions goals. Alternative PLR-1C emissions would be below the industrial source threshold established by SLOCAPCD and the entity (PG&E) overall is subject to GHG mandatory reporting regulations, cap-and-trade, and other statewide regulations such as SF6 gas insulated equipment. Cap-and-trade regulation as well as implementation of any adopted industry-specific regulations ensures that GHG emissions associated with electricity and other industrial sources are doing their fair share to reach the statewide goals of AB 32 and SB 32. The alternative would not impede the regulations and policies aimed at decarbonizing the electricity supply such as the RPS as it does not involve generation of electricity. GHG emissions from construction equipment use are one-time emissions and would cease once construction of the alternative is complete. Any future regulations that may impact operational emissions that may be implemented as part of the statewide goals of SB 32 must be complied with by the alternative if applicable. As a result, impacts under significance criterion B would be **less than significant.**

Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)

Alternative PLR-3 would involve a longer construction duration compared to the same segment of the Proposed Project's 70kV power line and would involve additional excavation activities (e.g., trenching). The type of construction equipment used for trenching the power line underground is different from equipment used to construct overhead lines. Generally, the underground power line construction would be expected to be more intensive, resulting in additional GHG emissions. However, the GHG emissions from construction of Alternative PLR-3

would need to increase more than four times to exceed 10,000 MT per year before amortization. Thus, it is unlikely even with the increased construction that Alternative PLR-3's GHG emissions would come close to approaching this level of increase. Once constructed, operation and maintenance of Alternative PLR-3 would involve similar number and frequency of vehicle trips compared to the Proposed Project's 70 kV power line. Even with additional or more intensive underground power line construction, it is unlikely that Alternative PLR-3 would result in annualized GHG emissions above the 10,000 MT CO_2e threshold. Like the Proposed Project, APMs AIR-1 and GHG-1 would be implemented, which would reduce or minimize GHG emissions during construction and operation of Alternative PLR-3. As a result, impacts under significance criterion A would be **less than significant**.

Like the Proposed Project, the GHG emissions from Alternative PLR-3 would be largely one-time, construction-related emissions that would not substantially affect the State's ability to achieve its GHG emissions reductions goals. Alternative PLR-3 emissions would be below the industrial source threshold established by SLOCAPCD and the entity (PG&E) overall is subject to GHG mandatory reporting regulations, cap-and-trade, and other statewide regulations such as SF6 gas insulated equipment. Cap-and-trade regulation as well as implementation of any adopted industry-specific regulations ensures that GHG emissions associated with electricity and other industrial sources are doing their fair share to reach the statewide goals of AB 32 and SB 32. The alternative would not impede the regulations and policies aimed at decarbonizing the electricity supply such as the RPS as it does not involve generation of electricity. GHG emissions from construction equipment use are one-time emissions and would cease once construction of the alternative is complete. Any future regulations that may impact operational emissions that may be implemented as part of the statewide goals of SB 32 must be complied with by the alternative if applicable. As a result, impacts under significance criterion B would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

Similar to Alternative SS-1, Alternative SE-1A would have slightly higher potential for GHG emissions during construction compared to the proposed Estrella Substation due to the slightly longer 230 kV interconnection, necessitating approximately one additional month of construction. The longer construction duration would result in an increased number of worker commute trips, which would result in increased GHG emissions. However, the GHG emissions from construction of Alternative SE-1A would need to increase more than four times to exceed 10,000 MT per year before amortization. Thus, it is unlikely even with the increased construction activity that Alternative SE-1A's GHG emissions would come close to approaching this level of increase. Apart from the longer 230 kV interconnection, the substation under Alternative SE-1A would be largely similar to the Estrella Substation, and would involve a similar number of vehicle trips during operation and maintenance activities. Even with the additional construction activity, it is unlikely that Alternative SE-1A would result in annualized GHG emissions above the 10,000 MT CO_2e threshold. Like the Proposed Project, APMs AIR-1 and GHG-1 would be implemented to reduce or minimize emissions during construction and operation of Alternative SE-1A. Therefore, impacts under significance criterion A would be **less than significant**.

Like the Proposed Project, the GHG emissions from Alternative SE-1A would be largely one-time, construction-related emissions that would not substantially affect the State's ability to achieve its GHG emissions reductions goals. Alternative SE-1A emissions would be below the industrial

source threshold established by SLOCAPCD and the entity (PG&E) overall is subject to GHG mandatory reporting regulations, cap-and-trade, and other statewide regulations such as SF6 gas insulated equipment. Cap-and-trade regulation as well as implementation of any adopted industry-specific regulations ensures that GHG emissions associated with electricity and other industrial sources are doing their fair share to reach the statewide goals of AB 32 and SB 32. The alternative would not impede the regulations and policies aimed at decarbonizing the electricity supply such as the RPS as it does not involve generation of electricity. GHG emissions from construction equipment use are one-time emissions and would cease once construction of the alternative is complete. Any future regulations that may impact operational emissions that may be implemented as part of the statewide goals of SB 32 must be complied with by the alternative if applicable. As a result, impacts under significance criterion B would be **less than significant.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Alternative SE-PLR-2 would be approximately 4.8 miles shorter in length than the Proposed Project's 70 kV power line and would require a reduced construction schedule (9 months shorter). As such, it would result in fewer total construction-related GHG emissions due to the reduced construction activity associated with installation of fewer 70 kV poles and fewer construction worker commute trips. Once constructed, operation and maintenance of Alternative SE-PLR-2 would involve a similar number and frequency of vehicle trips compared to the Proposed Project's 70 kV power line. Given the reduced construction activities, Alternative SE-PLR-2 would not result in annualized GHG emissions above the 10,000 MT CO_2e threshold. Additionally, APMs AIR-1 and GHG-1 would be implemented, which would further reduce or minimize GHG emissions during construction and operation of Alternative SE-PLR-2. As a result, impacts under significance criterion A would be **less than significant**.

Like the Proposed Project, the GHG emissions from Alternative SE-PLR-2 would be largely one-time, construction-related emissions that would not substantially affect the State's ability to achieve its GHG emissions reductions goals. Alternative SE-PLR-2 emissions would be below the industrial source threshold established by SLOCAPCD and the entity (PG&E) overall is subject to GHG mandatory reporting regulations, cap-and-trade, and other statewide regulations such as SF6 gas insulated equipment. Cap-and-trade regulation as well as implementation of any adopted industry-specific regulations ensures that GHG emissions associated with electricity and other industrial sources are doing their fair share to reach the statewide goals of AB 32 and SB 32. The alternative would not impede the regulations and policies aimed at decarbonizing the electricity supply such as the RPS as it does not involve generation of electricity. GHG emissions from construction equipment use are one-time emissions and would cease once construction of the alternative is complete. Any future regulations that may impact operational emissions that may be implemented as part of the statewide goals of SB 32 must be complied with by the alternative if applicable. As a result, impacts under significance criterion B would be **less than significant.**

Alternative BS-2: Battery Storage to Address the Distribution Objective

The sizes of FTM BESSs under Alternative BS-2 are not yet known and would depend on future load growth in the Paso Robles area; however, it is likely that GHG emissions associated with BESS construction would be similar or reduced compared to the proposed Estrella Substation. With the exception of a possible flow battery at example FTM Site 6 (i.e., Templeton

Substation), individual BESSs would likely be substantially smaller than the Estrella Substation and would involve less earthwork and heavy equipment, thereby resulting in fewer GHG emissions. Once constructed, BESSs under Alternative BS-2 would be operated remotely and GHG emissions would largely be limited to those from vehicles and equipment used in periodic inspections, maintenance, and repairs, which would not be substantial. No GIS would be included in the FTM BESSs; thus, no emissions of SF_6 would occur during operation. Overall, given that FTM BESSs under Alternative BS-2 would likely involve similar or reduced construction-related GHG emissions compared to the Proposed Project, and would have reduced emissions during operation, it is unlikely that Alternative BS-2 would result in annualized GHG emissions above the 10,000 MT CO_2e threshold.

In many ways, Alternative BS-2 would serve to implement State plans and policies related to GHG emissions reductions. While construction of FTM BESSs under Alternative BS-2 would result in GHG emissions, operation of the BESSs could reduce GHG emissions associated with the electrical grid over the long-term. Specifically, use of battery stored power during high demand periods will reduce the need for higher carbon intensity sources of electricity generation, such as the use of peaker plants, which are fossil-fuel-based. The alternative would not impede the regulations and policies aimed at decarbonizing the electricity supply such as the RPS as it does not involve generation of electricity (only storage of already generated electricity). GHG emissions from construction equipment use are one-time emissions and would cease once construction of the alternative is complete. Any future regulations that may impact operational emissions that may be implemented as part of the statewide goals of SB 32 must be complied with by the alternative if applicable.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Battery Storage with Solar Power

Construction activities under Alternative BS-3 would include deliveries of individual BESS units to customers' properties, installation of the units on-site, and wiring work to connect the BESS to existing electrical systems. BESS units for larger commercial properties could be heavy, may require larger/specialized trucks for delivery, and may require use of a small crane for installation. These activities would be considerably smaller in scale than the Proposed Project and would therefore likely result in fewer GHG emissions. Depending on the size of solar power installations, it is unknown how the construction emissions would compare to the Proposed Project. However, it is unlikely that amortized GHG emissions would be above the 10,000 MT CO_2e threshold. Once installed, BESS and solar facilities under Alternative BS-3 would require minimal operation and maintenance.

Like Alternative BS-2, Alternative BS-3 would largely function to implement the State's plans and policies for GHG emissions reduction. Deployment of BTM BESSs would result in an overall energy efficiency savings as energy stored in BESSs could be released to the grid or used directly by customers during peak periods, thereby avoiding or reducing the need for peaker plant generation (which is typically fossil fuel-based). Likewise, BTM solar units would generate renewable energy that may be stored on-site or discharged to the grid, potentially decreasing

the amount of new conventional generating facilities needed in the future to supply the local area's energy needs, and thereby reducing overall GHG emissions. The alternative would not impede the regulations and policies aimed at decarbonizing the electricity supply such as the RPS as it would potentially generate renewable electricity which would assist in reaching the RPS goals. GHG emissions from construction equipment use are one-time emissions and would cease once construction of the alternative is complete. Any future regulations that may impact operational emissions that may be implemented as part of the statewide goals of SB 32 must be complied with by the alternative if applicable.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

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4.9 Hazards and Hazardous Materials

4.9.1 Introduction

This section presents the environmental setting and potential impacts related to hazards and hazardous materials that may occur from the Proposed Project, reasonably foreseeable distribution components, and alternatives. Hazardous materials are chemical and non-chemical substances that can pose a threat to the environment or human health if misused or released. Hazardous materials occur in various forms and can cause death, serious injury, long-lasting health effects, and damage to buildings, homes, and other property. Hazardous materials can include explosives, flammable and combustible substances, poisons, radioactive materials, pesticides, petroleum products, and other materials defined as hazardous under the Resource Conservation and Recovery Act of 1976 (RCRA) in 40 CFR 261.

Potential impacts from the Proposed Project, reasonably foreseeable distribution components, and alternatives are evaluated in light of existing laws and regulations governing hazards and hazardous materials and the existing physical environmental setting.

4.9.2 Regulatory Setting

Hazardous materials are regulated by numerous agencies whose jurisdictions and responsibilities sometimes overlap. Federal agencies that regulate hazardous materials include the USEPA and the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). At the state level, agencies such as the California Department of Industrial Relations, California Occupational Safety and Health Administration (Cal/OSHA), and the California Emergency Management Agency (Cal EMA) govern the use of hazardous materials. State and local agencies have either parallel or more stringent rules than federal agencies.

Federal Laws, Regulations, and Policies

Resource Conservation and Recovery Act

RCRA (42 USC Section 6901 et seq.), as amended by the Hazardous and Solid Waste Amendments of 1984, is the primary federal law for the regulation of solid waste and hazardous waste in the United States. RCRA provides for the "cradle-to-grave" regulation of hazardous wastes, including generation, transport, treatment, storage, and disposal. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed.

The USEPA has primary responsibility for implementing RCRA, but individual states are encouraged to seek authorization to implement some or all RCRA provisions. California received authority to implement the RCRA program in August 1992. The California Department of Toxic Substances Control (DTSC) is responsible for implementing the RCRA program in addition to California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also called the Superfund Act; 42 USC Section 9601 et seq.) is intended to protect the public and the environment from the effects of past hazardous waste disposal activities and new hazardous material spills. Under CERCLA, the USEPA has the authority to seek the parties responsible for hazardous materials releases and to ensure their cooperation in site remediation. CERCLA also provides federal funding (through the "Superfund") for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499) amended some provisions of CERCLA and provided for a Community Right-to-Know program.

Spill Prevention, Control, and Countermeasure Rule

The USEPA's Spill Prevention, Control, and Countermeasure (SPCC) Rule (40 CFR Part 112) applies to facilities with a single above-ground storage tank (AST) with a storage capacity greater than 660 gallons, or multiple tanks with a combined capacity greater than 1,320 gallons. The rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans. The SPCC rule applies to oil-filled equipment, including transformers that store in excess of the threshold quantities of oil described above.

Occupational Safety and Health Administration

OSHA is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for the handling of hazardous substances (as well as other hazards). These standards, codified in 29 CFR Part 1910, address issues that range in scope from walking and working surfaces, to exit routes and emergency planning, to hazardous materials and personal protective equipment (PPE). They include exposure limits for a wide range of specific hazardous materials, as well as requirements that employers provide PPE to their employees wherever it is necessary (29 CFR Section 1910.132).

Federal Aviation Administration Regulations

The FAA regulates aviation at regional, public, private, and military airports. Navigable airspace regulations at 14 CFR Part 77 establish the standards for determining obstructions in navigable airspace. The FAA issues the airspace hazard determinations using FAA Form 7460. In addition, 14 CFR Part 133 establishes helicopter loading regulations.

State Laws, Regulations, and Policies

Safe Drinking Water and Toxic Enforcement Act of 1986 – Proposition 65

The Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65, protects the State's drinking water sources from contamination with chemicals known to cause cancer, birth defects, or other reproductive harm. Proposition 65 also requires businesses to inform the public about exposure to such chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. In

accordance with Proposition 65, the California Governor's Office publishes, at least annually, a list of such chemicals. The Office of Environmental Health Hazard Assessment (OEHHA), an agency under the California Environmental Protection Agency (CalEPA), is the lead agency for implementation of the Proposition 65 program. Proposition 65 is enforced through the California Attorney General's Office; however, district and city attorneys and any individual acting in the public interest may also file a lawsuit against a business alleged to be in violation of Proposition 65 regulations.

California Public Utilities Commission General Order 95: Rules for Overhead Electric Line Construction

The CPUC's G.O. 95 specifies requirements for overhead transmission line design, construction, and maintenance, including a number of requirements to avoid or minimize potential safety hazards. These requirements include standards related to vegetation management and maintenance of minimum vegetation clearances from high-voltage lines to minimize potential fire hazard.

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 PRC Sections 4292 and 4293 in State Fire Responsibility Areas (SRAs).

Hazardous Materials Business Plans

Hazardous materials business plans (HMBPs) are required for businesses that handle hazardous materials in quantities equal to or greater than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas, or extremely hazardous substances above the threshold planning quantity (40 CFR Part 355, Appendix A) (Cal OES 2014). HMBPs are required to include an inventory of the hazardous materials used/stored by the business, a site map, an emergency plan, and a training program for employees. In addition, business plan information is provided electronically to a statewide information management system, verified by the applicable Certified Unified Program Agency (CUPA), and transmitted to agencies responsible for the protection of public health and safety (i.e., local fire department, hazardous material response team, and local environmental regulatory groups).

California Occupational Safety and Health Administration

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations pertaining to the use of hazardous materials in the workplace (CCR Title 8) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, warnings about exposure to hazardous substances, and preparation of emergency action and fire prevention plans. Hazard communication program regulations that are enforced by Cal/OSHA require workplaces to maintain procedures for identifying and labeling hazardous substances; inform workers about the hazards associated with hazardous substances and their handling; and prepare health and safety plans to protect workers at hazardous waste sites. Employers also must make material safety data sheets available to employees and document employee information and training programs.

California Accidental Release Prevention

The purpose of the California Accidental Release Prevention (CalARP) program is to prevent accidental releases of substances that can cause serious harm to the public and the environment, to minimize the damage if releases do occur, and to satisfy community right-to-know laws. In accordance with this program, businesses that handle more than a threshold quantity of a regulated substance are required to develop a risk management plan (RMP). The RMP must provide a detailed analysis of potential risk factors and associated mitigation measures that can be implemented to reduce accident potential. CUPAs implement the CalARP program through review of RMPs, facility inspections, and public access to information that is not confidential or trade secret.

Emergency Planning and Community Right-to-Know Act – Toxic Release Inventory

Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) established the Toxic Release Inventory (TRI). TRI is a publicly available database containing information on disposal and other releases of toxic chemicals from industrial facilities. As stipulated in 40 CFR Part 372, owners or operators of facilities that release toxic chemicals above a certain threshold (25,000 pounds or more per year) are required to submit information about (1) on-site releases and other disposals of toxic chemicals; (2) on-site recycling, treatment, and energy recovery associated with TRI chemicals; (3) off-site transfers of toxic chemicals from TRI facilities to other locations; and (4) pollution prevention activities at facilities.

Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) (California Health and Safety Code Chapter 6.5, Section 25100 et seq.) authorizes Cal/EPA and DTSC, a department within Cal/EPA, to regulate the generation, transport, 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.

California Health and Safety Code, Management of Used Oil

Sections 25250-25250.30 of the California Health and Safety Code specify requirements related to management of used oil, which is typically considered a hazardous waste. The regulations prohibit the disposal of used oil by discharge to sewers, drainage systems, surface water or groundwater, or by deposit on land; and include reporting requirements for transport of used oil to recycling facilities. However, Section 25250.4 identifies an exemption for “dielectric fluid removed from oil-filled electrical equipment that is filtered and replaced, onsite, at a restricted access electrical equipment area, or that is removed and filtered at a maintenance facility for reuse in electrical equipment and is managed in accordance with the applicable requirements of Part 279 (commencing with Section 279.1) of Subchapter I of Chapter 1 of Title 40 of the Code of Federal Regulations.” This section clarifies that “oil-filled electrical equipment” includes, but is not limited to, transformers, circuit breakers, and capacitors.

California Health and Safety Code, Hazardous Waste Utility Exemption

Section 25143.1.5 of the California Health and Safety Code establishes an exemption from hazardous waste control requirements and fees for wood waste, including any wood waste previously treated with a preservative that has been removed from electric, gas, or telephone service, as long as the following conditions are met:

1. The wood waste is not subject to regulation as a hazardous waste under the federal act.

2. The wood waste 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.

3. The solid waste landfill used for disposal is authorized to accept the wood waste under waste discharge requirements issued by the RWQCB pursuant to Division (commencing with Section 13000) of the Water Code.

The Unified Program

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. CalEPA and other State agencies set the standards for their programs while local governments implement the standards. These local implementing agencies are called CUPAs. For each county, the CUPA regulates/oversees the following:

- HMBPs;
- CalARP plans or federal risk management plans;
- The operation of underground storage tanks (USTs) and ASTs;
- Universal waste and hazardous waste generators and handlers;
- On-site hazardous waste treatment;
- Inspections, permitting, and enforcement;
- Proposition 65 reporting; and
- Emergency response.

The CUPA for San Luis Obispo County is the County of San Luis Obispo Department of Environmental Health.

California Emergency Services Act

The California Emergency Services Act (California Government Code, Chapter 7) established Cal EMA and created requirements for emergency response training and planning. Under this act, the State is required to develop a statewide toxic disaster contingency plan that can facilitate an

effective, multi-agency response to a situation in which toxic substances are dispersed in the environment so as to cause, or potentially cause, injury or death to a substantial number of persons or substantial harm to the natural environment (7 California Government Code, Section 8574.18). The California Emergency Services Act also requires the agency to develop and manage the California Hazardous Substances Incident Response Training and Education Program, which provides classes in hazardous substance response (7 California Government Code 8574.20). Under the California Emergency Services Act, Cal EMA would have the ability to provide an effective response to a catastrophic hazardous materials release.

California Fire Code

The California Fire Code (24 CCR Part 9) establishes minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. Chapter 33 of the Code contains requirements for fire safety during construction and demolition activities, such as development of a pre-fire plan in coordination with the fire chief; maintaining vehicle access for firefighting at construction sites, and requirements related to safe operation of internal combustion engine construction equipment.

Specifically, the California Fire Code requires that smoking only be conducted in approved areas (Section 3304.1), materials susceptible to spontaneous ignition, such as oily rags, be stored in a listed disposal container (Section 3304.2.4), sources of ignition and smoking be prohibited in flammable and combustible liquid storage areas (Section 3305.4), and that structures under construction be provided with not less than one approved portable fire extinguisher, including one in every storage and construction shed and additional portable fire extinguishers where special hazards exist including where flammable and combustible liquids are stored and used (Section 3315.1), among other requirements. Chapter 35 of the California Fire Code governs welding and other hot work and imposes numerous safety requirements to minimize the risk of fire ignition from these activities.

CAL FIRE Wildland Fire Management

The Office of the State Fire Marshal and CAL FIRE administer State policies regarding wildland fire safety. Construction contractors must comply with the following requirements in the PRC during construction activities at any sites with forest-, brush-, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (PRC Section 4442).

- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (PRC Section 4428).

- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire-suppression equipment (PRC Section 4427).

- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines must not be used within 25 feet of any flammable materials (PRC Section 4431).

California Highway Patrol

The California Highway Patrol (CHP), along with Caltrans, enforces and monitors hazardous materials and waste transportation laws and regulations in California. These agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads. All motor carriers and drivers involved in transportation of hazardous materials must apply for and obtain a hazardous materials transportation license from CHP.

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

CARB has established the 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. Under the ATCM, 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 the SLOCAPCD before construction begins.

Porter-Cologne Water Quality Control Act

As discussed in more detail in Section 4.10, “Hydrology and Water Quality”, the Porter-Cologne Water Quality Control Act (California Water Code, Division 7), also known as the Porter-Cologne Act, is the provision of the California Water Code that regulates water quality in California and authorizes the SWRCB and RWQCBs to implement and enforce the regulations.

RWQCBs regulate discharges under the Porter-Cologne Act primarily through the issuance of waste discharge requirements (WDRs). Anyone discharging or proposing to discharge materials that could affect water quality must file a report of waste discharge. The SWRCB and applicable RWQCBs can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Proposed Project, reasonably foreseeable distribution components, and alternatives are in areas under the jurisdiction of the Central Coast RWQCB (CCRWQCB).

4.9.3 Environmental Setting

Regional Setting and Existing Land Use

The Proposed Project, reasonably foreseeable distribution components, and alternatives are located in the north-central portion of San Luis Obispo County, California, within and around Paso Robles. The Estrella Substation would be located on approximately 15 acres of land that is currently under agricultural cultivation as a vineyard. The Proposed Project new and reconductored 70 kV power line segments would traverse lands primarily under agricultural

production or undeveloped, as well as rural residential and dense residential (reconductoring segment) land uses. The reasonably foreseeable distribution components would similarly traverse agricultural lands as well as follow existing road rights-of-way.

The alternatives would be located on generally similar types of existing land uses, although this would vary by alternative. Alternatives PLR-1A and PLR-1C would pass through largely agricultural areas and more rural areas north of the Paso Robles Airport in comparison to the Proposed Project, although the reconductoring segment for these routes would pass through the same dense residential land uses towards the Paso Robles Substation. The alternative substation sites under Alternative SS-1 and SE-1A are both located in areas of current or former agricultural production. The 70 kV power line route for Alternative SE-PLR-2 would pass through primarily rural residential areas, as well as some denser residential development nearer to the Paso Robles Substation.

The example FTM battery storage sites considered in this DEIR for Alternative BS-2 are primarily undeveloped with differing surrounding land uses. FTM Sites 1-4 are located in industrial, commercial, and residential areas of Paso Robles relatively close to downtown, whereas FTM Site 5 is located adjacent to Paso Robles Airport and FTM Sites 6-8 are located adjacent to existing regional substations.

Figure 2-7 in Chapter 2, *Project Description,* and multiple figures in Chapter 3, *Alternatives Description,* show aerial imagery depicting the existing land cover/land uses at Proposed Project, reasonably foreseeable distribution components, and alternative sites.

Airports

The primary public airport in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives is the Paso Robles Municipal Airport, which is a two-runway airport located at 4912 Wing Way, Paso Robles. This airport is located approximately 2.2 miles northwest of the proposed Estrella Substation and about 1.25 miles northeast of the northernmost portion of the new Proposed Project 70 kV power line segment. Portions of the new 70 kV power line segment are within the airport land use plan (ALUP) area (refer to Figure 4.11-3 in Section 4.11, “Land Use and Planning”). Portions of the reasonably foreseeable distribution components (including the entirety of the northern new distribution line segment) would also be located within the ALUP area.

The Estrella Route variations (Alternatives PLR-1A and PLR-1C) pass relatively close (approximately 1 mile north) to the Paso Robles Municipal Airport and are within the ALUP area for approximately 4 miles of their respective routes. The Bonel Ranch Substation Site (Alternative SS-1) would be 4.5 miles from this airport. Alternatives SE-1, SE-PLR-2, and all of the example FTM battery storage sites (with the exception of FTM Site 5) would be more than 4 miles from the airport. As noted above, FTM Site 5 would be located immediately adjacent to the CAL FIRE Air Attack Base, which is adjacent to the Paso Robles Municipal Airport.

Other airports in the area include the Bonel Airport, which is a small private airport, located approximately 0.7-mile from the Bonel Ranch Substation Site (Alternative SS-1) and the Alternative PLR-1C 70 kV power line route. The Oak Country Ranch Airport, located at 5161 Vineyard Drive in Paso Robles is approximately 6.7 miles west of Alternative SE-1A and 7.4 miles southwest of the reconductoring segment for the Proposed Project. The Santa Margarita Ranch

Airport, located between Highway 101 and El Camino Real (north of Santa Margarita) is approximately 5.5 miles southeast of the example FTM Site 7 at the Atascadero Substation.

Airports in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives are shown on Figure 4.9-1.

Schools

Numerous schools are located in Paso Robles and the surrounding area, as shown in Figure 4.9-1. None of these schools are located within 0.25-mile of the proposed Estrella Substation, the Proposed Project new or reconductored 70 kV power line route segments, or the reasonably foreseeable distribution components. The nearest school to the Proposed Project is Kermit King Elementary School, which is located at 700 Schoolhouse Circle, Paso Robles, approximately 0.3 mile east of the reconductoring segment.

With the exception of the example FTM Site 4, none of the alternatives would be located within 0.25 mile of a school. FTM Site 4 would be located on property owned by the Paso Robles Joint Unified School District and would be directly adjacent to the existing Paso Robles High School. Table 4.9-1 lists the schools nearest to the Proposed Project components, as well as the reasonably foreseeable distribution components and each respective alternative.

Table 4.9-1. Schools in the Vicinity of the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives

Proposed Project or Alternative Component		Nearest School(s)	Proximity (miles)
ID / No.	Name		
PP	70 kV Power Line	▪ Kermit King Elementary School, 700 Schoolhouse Circle, Paso Robles	0.3
PP	Estrella Substation	▪ The Children's Academy Montessori Preschool, 711 Rolling Hills Rd, Paso Robles	3.7
RFDC	Reasonably Foreseeable Distribution Components	▪ The Children's Academy Montessori Preschool, 711 Rolling Hills Rd, Paso Robles	2.7
SS-1	Bonel Ranch Substation Site	▪ Pleasant Valley Elementary School, 2025 Ranchita Canyon Rd, San Miguel	4.5
PLR-1A	Estrella Route to Estrella Substation	▪ Pleasant Valley Elementary School, 2025 Ranchita Canyon Rd, San Miguel	1
PLR-1C	Estrella Route to Bonel Ranch, Option 1	▪ Pleasant Valley Elementary School, 2025 Ranchita Canyon Rd, San Miguel	1
PLR-3A	Strategic Undergrounding, Option 1	▪ Cuesta College North County Campus, 2800 Buena Vista Dr, Paso Robles	0.6
PLR-3B	Strategic Undergrounding, Option 2	▪ Cuesta College North County Campus, 2800 Buena Vista Dr, Paso Robles	0.6
SE-1A	Templeton Substation Expansion – 230/70 kV Substation	▪ Templeton Middle School, 925 Old County Rd, Templeton	1.8
SE-PLR-2	Templeton-Paso South River Road Route	▪ Paso Robles High School, 801 Niblick Rd, Paso Robles ▪ Paso Robles Independent Study Center, 812 Niblick Rd, Paso Robles ▪ Liberty High School, 810 Niblick Rd, Paso Robles	0.4
BS-2	Battery Storage to Address the Distribution Objective		

Proposed Project or Alternative Component		Nearest School(s)	Proximity (miles)
ID / No.	Name		
FTM Site #1		▪ Paso Robles High School, 801 Niblick Rd, Paso Robles ▪ Paso Robles Independent Study Center, 812 Niblick Rd, Paso Robles ▪ Liberty High School, 810 Niblick Rd, Paso Robles	0.3
FTM Site #2		▪ Paso Robles High School, 801 Niblick Rd, Paso Robles ▪ Paso Robles Independent Study Center, 812 Niblick Rd, Paso Robles ▪ Liberty High School, 810 Niblick Rd, Paso Robles	0.6
FTM Site #3		▪ Pat Butler Elementary School, 700 Nicklaus St, Paso Robles	0.5
FTM Site #4		▪ Paso Robles High School, 801 Niblick Rd, Paso Robles	0
FTM Site #5		▪ Pleasant Valley Elementary School, 2025 Ranchita Canyon Rd, San Miguel ▪ Cuesta College North County Campus, 2800 Buena Vista Dr, Paso Robles	2.7
FTM Site #6		▪ Templeton Middle School, 925 Old County Rd, Templeton, CA	1.8
FTM Site #7		▪ Atascadero Cooperative Preschool, 8935 Amapoa Ave, Atascadero, CA	0.7
FTM Site #8		▪ Lillian Larsen Elementary School, 1601 L St, San Miguel, CA	0.7

Notes: PP = Proposed Project; RFDC = Reasonably Foreseeable Distribution Components; SS = Substation Site; PLR = Power Line Route; SE = Substation Expansion; BS = Battery Storage; FTM = front-of-the-meter

Naturally Occurring Asbestos

Serpentine rock is a source of NOA and is known to occur in portions of San Luis Obispo County. 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. As noted in Section 4.9.2 above, CARB has identified asbestos as a toxic air contaminant. However, serpentine soils in the county are generally limited to the coastal and inland mountain ranges and are not typically found in the inland valleys. No serpentine soils are mapped in Paso Robles or in the areas of the Proposed Project, reasonably foreseeable distribution components, or alternatives (SLOCAPCD 2020).

Agricultural Pesticide Use

As discussed above, many segments/portions of the Proposed Project (including the Estrella Substation site and much of the new 70 kV power line route) pass through, or are located on, areas currently under agricultural production. Similarly, many of the alternatives are located on agricultural lands. These areas may be subject to pesticide applications, which can contaminate the soils. Many different types of pesticides are used in commercial agriculture, some of which degrade more quickly than others. In general, pesticide use is assumed to occur on a regular basis in all vineyards and crop fields on and adjacent to the Proposed Project site, reasonably foreseeable distribution components, and alternatives (for alternatives located on or near agricultural lands) according to individual crop needs during the growing season.

Existing Hazardous Materials Sites

In general, hazardous materials contamination sites in urban and suburban areas are typically associated with historic or current light industrial uses, such as auto repair shops, gas stations, and dry-cleaning facilities. Hazardous materials contamination in rural areas is more typically associated with activities such as agricultural processing and mining sites.

A number of documented hazardous materials contamination/clean-up sites exist in the greater Paso Robles area, as shown in Figure 4.9-1. None of these sites are located on or immediately adjacent to the proposed Estrella Substation site. Four permitted underground storage tanks (USTs), including one closed clean-up site, are located approximately 900 feet south of the proposed 70 kV power line at Golden Hill Road just north of SR 46 (SWRCB 2019). Additionally, two permitted USTs and one closed leaking underground storage tank (LUST) clean-up site are located approximately 300 feet west/southwest of the Paso Robles Substation, which is the southern terminus of the Proposed Project's reconductoring segment (as well as the reconductoring segments for several alternatives power line routes [i.e., Alternative PLR-1A and PLR-1C]) (SWRCB 2019). No known existing hazardous materials sites are located in proximity to the reasonably foreseeable distribution components.

Several of the example FTM sites (1-4) are located relatively near the USTs and LUST clean-up site noted above. FTM Site 5 at the CAL FIRE Air Attack Base is located approximately 0.35 mile northeast of an inactive military cleanup site (SWRCB 2019). No existing hazardous materials sites are located near Alternatives SE-1A or SS-1, or FTM Sites 6, 7, or 8.

Fire Hazard

As shown on Figure 4.9-2, the proposed Estrella Substation site and the entirety of the proposed 70 kV power line, as well as the reasonably foreseeable distribution components, would be located in an LRA not designated as a very high fire hazard severity zone (VHFHSZ); however, the substation site would be located close (adjacent across Union Road) to an SRA designated high fire hazard severity zone (HFHSZ) (CAL FIRE 2009, 2007). The Estrella Substation site would be located within an irrigated agricultural field (vineyard row crops), which generally would have low wildfire hazard potential. Much of the new power line segment would pass through irrigated lands with similarly low ignition potential. Portions of the new and reconductored 70 kV power line segments would pass through rural residential and undeveloped areas that would have greater amounts of vegetation and dry brush with consequently elevated wildfire hazard. The reasonably foreseeable new distribution line segments would be installed in irrigated agricultural areas and within the SR 46 right-of-way.

Several of the alternatives would be located wholly or partly within the SRA HFHSZ, as shown on Figure 4.9-2. Specifically, the entirety of the Bonel Ranch Substation Site (Alternative SS-1) and Templeton Substation Expansion site (Alternative SE-1A) would be located in the HFHSZ. Portions of Alternatives PLR-1A and PLR-1C (including Minor Route Variation 1) and the majority of the length of Alternative SE-PLR-2 would be located within the HFHSZ. Additionally, the example FTM Sites 6 and 8 would be within the HFHSZ.

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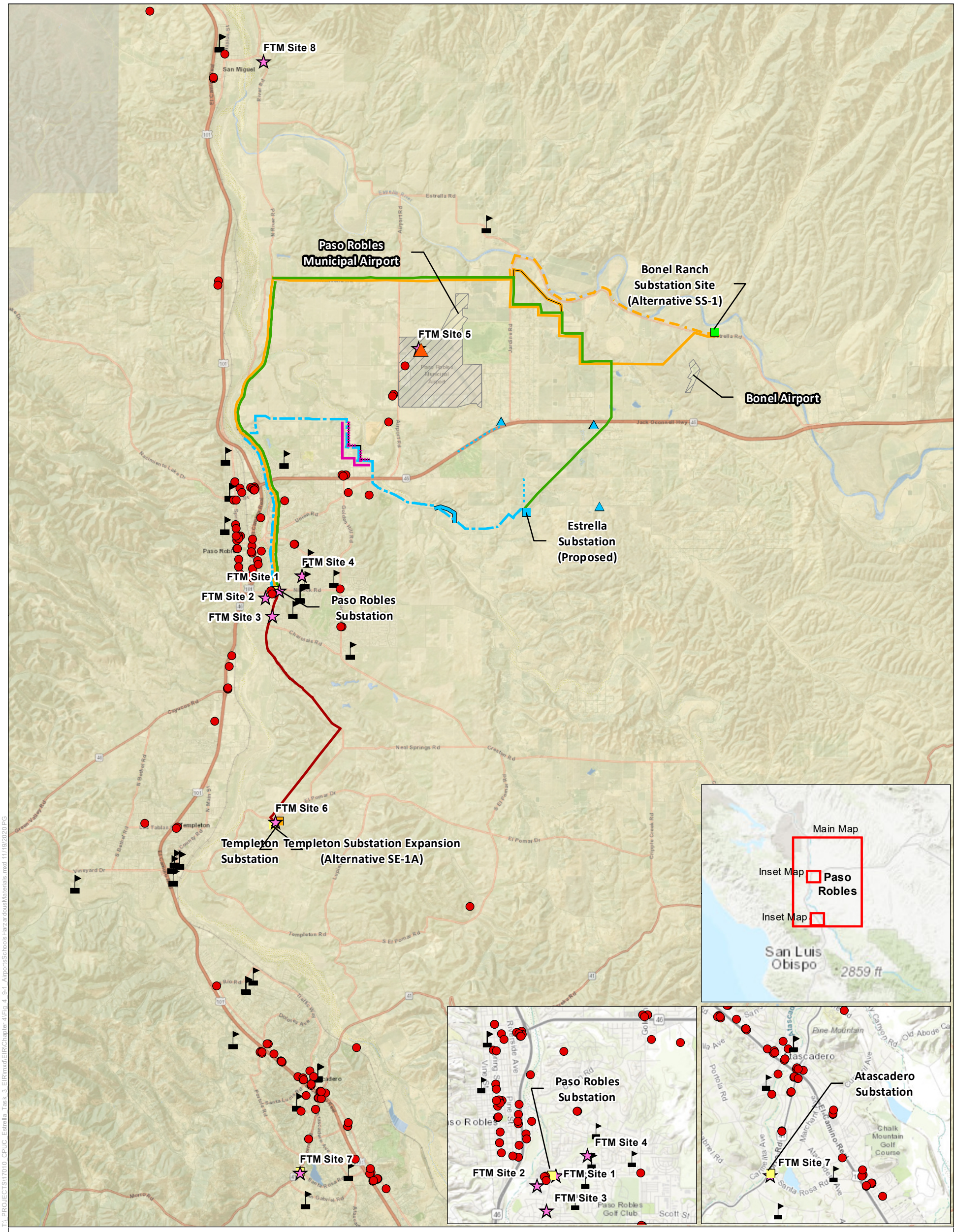

Figure 4.9-1
Airports, Schools, and Hazardous Material Sites

Source: ESRI 2020, PG&E 2019, SCWA 2017, EnviroStar 2019

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

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Bonel Ranch Substation Site (Alternative SS-1)

FTM Site 5

Estrella Substation (Proposed)

Paso Robles Substation

FTM Site 4

FTM Site 2

FTM Site 1

FTM Site 3

Templeton Substation

Templeton Substation Expansion (Alternative SE-1A)

FTM Site 6

San Miguel Substation

FTM Site 8

FTM Site 7

Atascadero Substation

San Miguel

Inset Map

Main Map

Paso Robles

Atascadero

Inset Map

San Luis Obispo

2859 ft

Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Fire Hazard Areas

- High Fire Hazard Zone State Responsibility Area
- Local Responsibility
- Local Responsibility Area Very High Fire Hazard Severity Zone

- CAL FIRE Air Attack Base

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.9-2
Fire Hazard Severity Map

Source: ESRI 2018, PG&E 2019, SCWA 2017, CAL FIRE 2020

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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4.9.4 Impact Analysis

Methodology

Potential impacts related to hazards and hazardous materials from the Proposed Project, reasonably foreseeable distribution components, and alternatives were evaluated with respect to the applicable CEQA Guidelines Appendix G significance criteria, described below. Potential impacts also were considered in light of existing federal, state, and local laws and regulations related to hazards and hazardous materials, as well as the existing physical environment in the area of the Proposed Project, reasonably foreseeable distribution components, and alternatives, including proximity to sensitive receptors.

Criteria for Determining Significance

According to Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in a significant effect related to hazards and hazardous materials if they would:

A. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

B. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

C. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes within 0.25 mile of an existing or proposed school.

D. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5 and, as a result, 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, result in a safety hazard or excessive noise for people residing or working in the project area.

F. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

G. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Environmental Impacts

Proposed Project

Impact HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials – *Less than Significant*

Construction

Construction of the Proposed Project would involve routine transport, use, and disposal of hazardous materials, such as diesel fuel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, lubricating grease, and cement slurry. These materials would primarily be contained within construction equipment, but may also be stored on site or transported to the site, and may be replenished or disposed of periodically. Table 4.9-2, from the Applicants' PEA, provides the hazardous materials typically used for construction, and which may be encountered during the Proposed Project.

Table 4.9-2. Hazardous Materials Typically Used in Construction

Hazardous Material	Hazardous Material
ABC fire extinguisher	Gasoline treatment
Acetylene gas	Hot stick cleaner (cloth treated with polydimethylsiloxane)
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)

Hazardous Material	Hazardous Material
Diesel fuel	Wasp and hornet spray (1,1,1-trichloroethene)
Diesel fuel additive	WD-40
Eyeglass cleaner (contains methylene chloride)	ZEP (safety solvent)
Gasoline	

Source: NEET West and PG&E 2017

Routine transport, use, and disposal of hazardous materials during Project construction could potentially expose persons or the environment to hazards if adequate precautions are not taken. Because parts of the Proposed Project are located in or adjacent to inhabited areas, routine transport, use, and disposal of hazardous materials during Project construction could affect the general public, construction workers, or the environment. Such adverse effects could include illness from exposure to toxic substances or soil or groundwater contamination from inappropriate disposal practices.

The Proposed Project would be subject to several existing federal and state laws and regulations related to hazardous materials, which would include protective requirements designed to limit potential impacts to workers, the public, and the environment. In accordance with OSHA and Cal/OSHA requirements, the Applicants and/or their contractor(s) would be required to implement workplace training, safety procedures for the handling of hazardous substances, and ensure that workers are not exposed to hazardous materials above exposure limits. Additionally, the Applicants would implement APM HAZ-1, which would include hazardous substance control and emergency response procedures. The Applicants have committed in the PEA that wood poles removed from the project area during construction would be managed under the utility exemption of the California Health and Safety Code (Hazardous Waste Fee Health and Safety Code). The poles would be placed in containers and transported off site to an appropriate licensed Class I or Class II landfill or solid waste landfill.

Because the Proposed Project would disturb greater than 1 acre of land, it also would be subject to the Construction General Permit. As described in detail in Section 4.10, “Hydrology and Water Quality,” this permit requires preparation and implementation of a SWPPP, which includes good site housekeeping measures, including protocols for proper storage and disposal of hazardous materials.

Compliance with these existing laws and regulations, as well as implementation of APM HAZ-1, would minimize potential for the Proposed Project to create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials during construction. Therefore, this impact would be **less than significant**.

Operation

Operation of the Proposed Project would involve relatively minimal transport, use, and disposal of hazardous waste, as the facilities would be operated remotely and would only require periodic maintenance and repair activities. Nevertheless, although infrequent, transport, use, and disposal of materials that could be used during operation and maintenance activities such

as transformer oil, solvents, and paints could potentially expose workers or the environment to adverse effects if adequate precautions are not taken.

The Proposed Project would be required to comply with applicable federal, state, and local laws and regulations related to hazardous materials management. As described in Section 4.9.2, "Regulatory Setting," hazardous materials use, storage, transport, and disposal during Proposed Project operation would be subject to OSHA and Cal/OSHA regulations, which include requirements for the protection of worker health and safety (e.g., providing PPE to employees to ensure they are not exposed to hazardous substances above acceptable limits). The Proposed Project also would be required to comply with USEPA's SPCC rule, as described further in Impact HAZ-2, and the Applicants would implement APM HAZ-1, which would include procedures that identify methods and techniques to minimize the exposure of the public and site workers to potential hazardous materials during all phases of Project construction and operation.

Given adherence to applicable laws and regulations, and implementation of APM HAZ-1, potential impacts associated with the routine storage, use, transport, and disposal of hazardous waste would be **less than significant**.

Impact HAZ-2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions – *Less than Significant*

Construction

As described in Impact HAZ-1, construction of the Proposed Project would involve use, transport, storage, and disposal of hazardous materials, including, but not limited to, diesel fuel, gasoline, and lubrication oil (see Table 4.9-2 for a full list of materials). These materials would primarily be contained within construction equipment, but may also be stored on-site and/or transported to and from the site. Use of these materials could potentially result in accidental spills that could release hazardous materials into the environment. Such potential releases could harm plants, soil-dwelling microorganisms, or contaminate groundwater rendering it unfit for designated beneficial uses. Because portions of the Proposed Project area are inhabited, potential releases of hazardous materials due to upset or accident conditions would have the potential to affect the general public, as well as construction workers and the environment.

As described in Impact HAZ-1 and in Section 4.10, "Hydrology and Water Quality", the Proposed Project would be required to obtain coverage under the Construction General Permit, which requires preparation and implementation of a SWPPP. The SWPPP would include good site housekeeping measures for proper storage and management of hazardous materials, as well as spill prevention, control, and counter-measures. Implementation of the SWPPP would greatly reduce the potential for Proposed Project construction activities to result in accidental releases of hazardous materials. In addition to the SWPPP, the Applicants would implement APM HAZ-1, which would include a number of measures designed to prevent or minimize the effects of potential releases of hazardous materials, including establishing site-specific buffers around construction vehicles and equipment located near sensitive resources and implementing emergency response and reporting procedures to address hazardous materials spills.

Given implementation of the above measures, accidental releases of hazardous materials during construction of the Proposed Project would be unlikely to occur. Should a release occur,

potential impacts on the public, construction workers, or the environment would be minimized. Therefore, this impact would be **less than significant.**

Operation

As described in Impact HAZ-1, operation of the Proposed Project would involve infrequent use, transport, and disposal of hazardous materials (e.g., fuel, paints, solvents, transformer oil, or similar substances). These materials could potentially create a significant hazard for workers, the public, or environment if they were to spill or otherwise be accidentally released.

Because the Proposed Project would store approximately 15,290 gallons of oil in the 230/70 kV transformer, it would be subject to the USEPA's SPCC rule, which requires preparation and implementation of an SPCC plan, including identification and implementation of appropriate spill containment structures and countermeasures. As described in Chapter 2, *Project Description,* the Proposed Project would include secondary containment structures designed to contain the oil volume of the transformers plus the 25-year 24-hour storm; this would be anticipated to, in part, satisfy the SPCC requirements and would minimize potential for a transformer oil spill to create a significant hazard to the public or the environment.

The Applicants also would prepare and implement a HMBP, which would include emergency and spill contingency-related requirements, such as the following (San Luis Obispo County Department of Environmental Health 2011a, 2011b):

- designating individuals responsible for verifying calls to appropriate authorities (911, San Luis Obispo County CUPA, and the State Office of Emergency Services) in the event of a spill;
- specifying the location of available equipment at the facility (e.g., fire extinguishing systems, spill control equipment, and decontamination equipment), and
- providing a training program for employees including training on the use of emergency response equipment and supplies for spills, fire, disposal, and first aid.

Implementation of the HMBP would further reduce potential for adverse impacts from hazardous materials during Proposed Project operation. Operation and maintenance of the new and reconductored power line, as well as the new and reconductored distribution line segments, would require minimal, if any, use of hazardous materials, but the measures included in APM HAZ-1 would reduce the potential for significant releases of such materials.

With adherence to applicable laws and regulations pertaining to hazardous materials and implementation of APM HAZ-1, the potential for operation of the Proposed Project to create a significant hazard to the public or environment through upset or accident conditions would be **less than significant.**

Impact HAZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within 0.25 mile of an existing or proposed school – *No Impact*

No schools exist within 0.25 mile of the Estrella Substation or the new or reconductored 70 kV power line segments and no schools are proposed within 0.25 mile of these Proposed Project

components. As described in Section 4.9.3, the nearest school is approximately 0.3 mile from the reconductoring segment. Therefore, construction and operation of the Proposed Project would not emit hazardous emissions within 0.25 mile of a school. **No impact** would occur**.**

Impact HAZ-4: 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, create a significant hazard to the public or the environment – *Less than Significant*

As described in Section 4.9.3 and shown in Figure 4.9-1, no identified hazardous materials sites are located on or in close proximity to the proposed Estrella Substation site, although several sites are identified in proximity to the proposed 70 kV power line. However, the Estrella Substation and a number of the new 70 kV poles would be located in an agricultural area with a history of chemical fertilizer and pesticide use. Construction of these Proposed Project features would involve soil excavation, and thus could encounter soil contaminants that may have migrated from the LUST sites located near the new 70 kV power line alignment or soil contaminated from the past chemical use. This could potentially expose construction workers, the public, or the environment to hazards; however, APM HAZ-1 would include measures for detection, testing, and proper handling and disposal of potentially contaminated soils encountered during construction. The measures in APM HAZ-1 would avoid or substantially minimize any potential impacts from contaminated soils resulting from the Proposed Project features being located on or near known or unknown hazardous materials sources. As a result, this impact would be **less than significant**.

Impact HAZ-5: 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, result in a safety hazard or excessive noise for people residing or working in the project area – *Less than Significant*

As noted in 4.9.3, a portion of the new 70 kV power line would be located within 2 miles of the Paso Robles Municipal Airport and within the ALUP area. Section 4.11, "Land Use and Planning", discusses ALUP compatibility in more detail and Figure 4.11-3 shows the ALUP safety zones in relation to the proposed power line.

Under Federal Aviation Regulations Part 77, permanent structures that penetrate certain height restrictions for natural and artificial objects will endanger pilots and passengers of aircraft operating at the airport and will pose a hazard to persons occupying those structures. Federal regulations allow utility line facilities within prescribed height limits, and the Proposed Project's facilities would be within these prescribed limits. Specifically, the LDSPs and/or TSPs comprising the new 70 kV power line within the ALUP area would be from 68 to 133 feet tall, which would be within the maximum limit of 200 feet above ground level established under 14 CFR Section 77.17. As described in the Applicants' PEA, the Applicants filed a Notice of Proposed Construction and Alteration Application for the Proposed Project and the FAA determined that the new power line segment does not exceed FAA obstruction standards and no marking and/or lighting is required (NEET West and PG&E 2017).

Additionally, CAL FIRE has indicated that the new power line in the area of Golden Hill Road and Circle B Road would not pose a substantial hazard to helicopters that may access the pond within the Circle B Homeowners Association (HOA) for water supply to fight fires (Tully, pers. comm., 2020). CAL FIRE would likely use agricultural ponds in the area prior to using the Circle B

HOA pond, and would not typically use the Circle B HOA pond if people or animals (e.g., horses that may be frightened by helicopters) are in the area unless it is a severe emergency. However, in the event that CAL FIRE were forced to access the Circle B HOA pond or no other good options were available, the presence of the 70 kV power line approximately 400-500 feet from the pond should not pose a substantial hazard to aircraft (Tully, pers. comm., 2020).

The Proposed Project's reconductoring segment would not substantially change the height of the existing structures, although poles would be replaced, and is not expected to exceed obstruction standards or require any marking or lighting. The proposed substation would not pose a hazard to aircraft, as the substation would be outside of the ALUP area and would not include structures significantly taller than its surroundings (the substation would be located adjacent to existing 500 kV and 230 kV transmission lines, with structures up to 65 feet tall).

Given that the Proposed Project's 70 kV power line would be operated remotely and no staff would be permanently stationed on site, it would not subject any project occupants to safety hazards or noise from being located within the ALUP area. Construction activities for the portion of the Proposed Project 70 kV power line within the ALUP area also would not subject workers to substantial safety hazards. As noted above, although the Golden Hill Industrial Park, Cava Robles RV Resort, and surrounding land uses are within the ALUP area, these areas are well-traveled, populated areas. Construction workers would be present in the ALUP area temporarily. While conducting activities within the ALUP area would create some elevated risk for construction workers and equipment being impacted by a plane crash from an aircraft taking off or attempting a landing at the Paso Robles Airport, this risk would be extremely small. As a result, overall, the impacts associated with being within an ALUP area or within 2 miles of an airport during Proposed Project construction and operation would be **less than significant.**

Impact HAZ-6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan – *Less than Significant with Mitigation*

Construction of the Proposed Project would involve operation and temporary storage of large construction equipment, excavation and hauling of excavated material, and transport and storage of construction materials (e.g., conduit, conductor cables, electrical/SVC equipment, etc.). All of these activities would have the potential to disrupt traffic flow along roads adjacent to the Estrella Substation site and/or along the 70 kV power line alignment, which could potentially impede emergency response or evacuation procedures. The presence of large construction equipment and haul trucks on local roadways could potentially impede movement and access of emergency response vehicles or cause localized congestion and thereby interfere with evacuation procedures.

Union Road, on which the proposed substation would be located, is located in a relatively rural area of San Luis Obispo County, but it is the main thoroughfare for the area. As such, it could be used by emergency vehicles and may be used as an evacuation route by residents in the event of an emergency. As noted above, construction traffic entering and exiting the substation may cause short-duration traffic delays or stoppage. Construction of the 70 kV power line would have similar effects in areas where poles would be located close to public roadways. Much of the power line alignment would traverse agricultural areas, but portions would cross or follow along various roadways, such as SR 46, Union Road, Germaine Way, Golden Hill Road, Buena Vista Drive, River Road, and others. Although most construction activities would not severely

impact traffic movement, and construction vehicles and equipment would only be operated on public roadways for short periods, it is possible that short-duration road or lane closures may be required. If local roadways were to be substantially impacted from construction activities such that emergency response and evacuation procedures would be substantially hindered, this would be a significant impact.

As described in Section 4.17, "Transportation and Traffic," **Mitigation Measure TR-1** would require implementation of traffic control measures during construction, such as signage and flaggers, maintenance of two-way traffic flow on all impacted streets or identification of detour routes, and notification of emergency response agencies in advance of lane or road closures. Implementation of these measures would ensure that emergency response vehicles could still access all areas affected by the construction activities and/or could plan alternate routes to certain areas. Likewise, implementation of traffic control measures would ensure that evacuation routes are passable or alternate routes are available to allow residents to evacuate an affected area. The Applicants have committed in the PEA that crossing structure installation would generally be conducted during low-volume traffic times to the extent practicable; regardless, implementation of the traffic control measures under Mitigation Measure TR-1 described above would minimize impacts on emergency response and evacuation from crossing structure installation.

Following completion of construction activities, the Proposed Project would be operated remotely and no staff would typically be on-site during Proposed Project operation. No permanent Proposed Project structures or equipment would interfere with vehicle movement on public roadways. Site maintenance and inspections would be sporadic and would occur only a few times per year. Overall, implementation of Mitigation Measure TR-1 would minimize potential impacts during construction, and no impacts to emergency vehicle access or evacuation procedures would occur during operation. Therefore, this impact would be **less than significant with mitigation**.

Impact HAZ-7: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires – *Less than Significant*

Construction

Proposed Project construction activities would involve use of combustion-engine construction equipment, as well as storage of potentially flammable materials, such as fuel or lubricating oil. Construction activities could potentially provide a spark or ignition source, or introduce materials that could combust or burn at high intensity if exposed to a heat source. Heat or sparks from vehicles or hot work activities also could ignite dry vegetation and cause fires. As such, construction activities could increase the risk of initiating a wildland fire.

As shown in Figure 4.9-2, the proposed substation and power line route are located adjacent to (across the road from) a HFHSZ; however, the proposed substation site and much of the power line route are currently developed for viticulture and devoid of brush or dry grass, reducing their ignition potential. Some parcels within 0.25 mile of the substation site are either ruderal grasslands or rangelands that, if left unmaintained under critical fire conditions, could present a fire hazard. Likewise, portions of the power line route and reconductoring segment would traverse some areas of oak woodlands, non-native grasslands, and other potentially flammable habitat types.

Other than initial vegetation clearing activities, Proposed Project construction activities would be confined to areas that have been cleared of vegetation, including access roads and work areas. Vehicles and equipment would primarily use existing roads to access work areas, all of which would be cleared of brush to reduce fire potential. New access roads or access roads needing improvement would be cleared of vegetation when constructed. Initial vegetation clearing activities would be subject to CAL FIRE Wildland Fire Management requirements included in the PRC for activities on sites with forest-, brush- or grass-covered lands, which include measures for reducing wildfire risk. As described in Section 4.9.2, this would include:

- equipping earthmoving and portable equipment with internal combustion engines with a spark arrestor (PRC Section 4442);
- maintaining fire suppression equipment during high fire danger periods (April 1 to December 1) (PRC Section 4428);
- removing flammable materials from potential ignition sources (e.g., construction equipment) on days when a burning permit is required (PRC Section 4427), and
- not using portable tools powered by gasoline-fueled internal combustion engines within 25 feet of flammable materials on days when a burning permit is required (PRC Section 4431).

Compliance with these requirements would reduce potential for accidental ignition of vegetative materials during the initial Proposed Project vegetation clearing activities, particularly on high fire risk days and during high fire danger times of the year.

Additionally, the Applicants and/or their contractors would be required to comply with the California Fire Code, including smoking only in designated areas, limiting ignition sources, and keeping appropriate fire-fighting equipment on site (see Section 4.9.2). Other sections of the California Fire Code would apply to any welding and hot work performed as part of the substation and power line construction. These requirements would serve to reduce ignition risks during construction activities and potentially allow for construction workers to quickly extinguish any incipient fires. Per the California Fire Code, Proposed Project construction activities also would need to provide for fire-fighting vehicle access to all construction sites, which would enable firefighters to effectively respond to and combat any fires at the construction sites.

Adherence to the above-described requirements would limit the potential for the Proposed Project to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, this impact would be **less than significant.**

Operation

During operation, the Proposed Project would not involve activities that would be anticipated to create a wildfire risk. Proposed Project operations may involve routine maintenance and repair activities involving use of internal-combustion engine construction equipment or flammable materials, but these activities would primarily be conducted within the fence line of the Estrella Substation, along maintained roadways, and within other paved areas. Routine operation and maintenance activities, per G.O. 95, would include vegetation clearing as needed to provide

defensible space while minimizing potential impacts from fires. In addition, the PG&E and HWT Wildfire Mitigation Plans prepared pursuant to California Public Utilities Code Section 8386 would be implemented. Refer to Section 4.20, "Wildfire," for further information about the wildfire mitigation plans.

The addition of an electrified substation and new overhead 70 kV power lines to the Paso Robles area would increase wildfire hazards to some degree above baseline conditions. With any electrified equipment, there is potential for accidental ignition of nearby vegetation, particularly during high fire hazard conditions/times of the year. In accordance with G.O. 95, the Proposed Project Applicants would be required to maintain acceptable clearances between the new/reconductored 70 kV power lines and any nearby trees or other vegetation to minimize the risk of the energized lines igniting wildfires. As noted above, the Estrella Substation would be located within an agricultural field not designated as a VHFHSZ or HFHSZ, where wildfire hazard would not be expected to be high, and the proposed 70 kV power line also would not pass through a VHFHSZ or HFHSZ. In addition, a CAL FIRE Air Attack Base is located adjacent to the Paso Robles Municipal Airport (Figure 4.9-2), which would help ensure quick response time should a wildfire occur. Given these mitigating factors, the additional wildfire risk/hazards from the creation of new electrified facilities through the Proposed Project, while difficult if not impossible to quantify, would be reasonably considered less than significant.

Because the Proposed Project would be operated remotely with no staff typically present on-site, a wildfire not caused by the Proposed Project but impacting the Proposed Project facilities would be unlikely to expose people to injury or death due to their presence on the Project site. The substation and power line facilities could be damaged by exposure to a wildfire in the area, but adherence to defensible space requirements would reduce the potential for damage. Therefore, this impact would be **less than significant.**

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

The construction activities for the reasonably foreseeable distribution components and ultimate substation buildout would be similar to those for the Proposed Project, but on a much smaller scale. Construction of the reasonably foreseeable distribution components and ultimate substation buildout would require use, storage, and disposal of hazardous materials (e.g., fuel, oil, lubricants, etc.). Like the Proposed Project, APM HAZ-1 would be implemented during construction of the facilities; further, applicable federal, state and local laws would be adhered to during construction, which would reduce the potential to create a significant hazard to the public or the environment from use of these materials. As described in Chapter 2, the reasonably foreseeable distribution components would include a 70/21 kV distribution transformer that would include mineral oil and secondary containment. Ultimate substation buildout would similarly include an additional 230/70 kV transformer, assumed to include the same amount of mineral oil (16,000 to 18,000 gallons) as described for the Proposed Project's 230/70 kV transformer, and the same secondary containment structure (i.e., designed to allow sufficient freeboard to include the oil volume of the transformer plus the precipitation from a 25-year, 24-hour storm event). Like the Proposed Project, the additional 230/70 kV transformer would be subject to the USEPA's SPCC rule, which requires preparation and implementation of an SPCC plan, including identification and implementation of appropriate spill containment structures and countermeasures. With adherence to applicable laws and regulations pertaining

to hazardous materials and implementation of APM HAZ-1, impacts under significance criteria A and B would be rendered **less than significant.**

No schools exist, nor are any proposed, within 0.25 mile of the reasonably foreseeable distribution components and ultimate substation buildout components (which would be located primarily within the already-constructed Estrella Substation site); therefore, **no impact** would occur under significance criterion C. Construction of the reasonably foreseeable distribution components would have limited potential to encounter soils contamination because the distribution poles would be direct embedded with relatively minimal excavation and ground disturbance. Also, the reasonably foreseeable distribution components would be installed primarily along existing roads. Likewise, some ground disturbance would be required for constructing the ultimate substation buildout equipment, specifically equipment foundations and substation wiring; however, this would occur within the fence line of the already-constructed Estrella Substation. As shown on Figure 4.9-1, no known hazardous sites are located on or in close proximity to the reasonably foreseeable distribution components. If contaminated soils or groundwater are encountered during construction of the reasonably foreseeable distribution components and/or for ultimate substation buildout, implementation of APM HAZ-1 would reduce adverse effects to a less than significant level. Therefore, impacts under significance criterion D would be **less than significant.**

Portions of the reasonably foreseeable distribution components, in particular the northern new distribution line segment, would be located within the ALUP area for the Paso Robles Municipal Airport. However, the reasonably foreseeable distribution components would be no taller than the existing distribution service lines in the area (the new distribution line segments would simply fill gaps in the existing distribution line network) and therefore would not pose a hazard to aircraft. With respect to ultimate substation buildout, equipment and facilities would primarily be placed within the fence line of the already-constructed Estrella Substation. Installation of additional transmission and distribution transformers and associated equipment within the 70 kV and 230 kV substations is assumed to not result in any increase in height of the substation. The LSTs installed for an additional 230 kV interconnection would be similar in height to the LSTs for the 230 kV interconnection included as part of the Proposed Project. Therefore, impacts under significance criterion E would be **less than significant.**

Construction of the reasonably foreseeable distribution components and ultimate substation buildout would be unlikely to substantially impact emergency response or evacuation procedures (especially the southern new distribution line segment, which would be installed along existing dirt roads within agricultural fields), but if traffic control measures were not implemented for activities within the roadway (e.g., SR 46), this could result in a significant impact. Implementation of **Mitigation Measure TR-1** would avoid or minimize any potential impacts on emergency response vehicle movement and evacuation procedures, ensuring that impacts under significance criterion F are **less than significant with mitigation.**

As shown in Figure 4.9-2, one additional pad-mounted transformer would be installed on the border of a HFHSZ, while the remainder of the reasonably foreseeable distribution components would be installed outside of the HFHSZ. Facilities proposed as part of ultimate substation buildout would be located within the fence line of the already-constructed Estrella Substation, outside of the HFHSZ. During construction, compliance with PRC and California Fire Code requirements (see discussion under Impact HAZ-7) would minimize potential for accidental

ignitions and limit the potential for an accidental ignition to evolve into a large and destructive fire. The addition of the pad-mounted transformer and other reasonably foreseeable distribution and ultimate substation buildout components would not substantially increase wildfire hazards in these areas above baseline conditions, as distribution lines, transformers, and associated equipment are already present in the area. Therefore, impacts under significance criterion G would be **less than significant.**

Alternatives

No Project Alternative

Under the No Project Alternative, no new substation or 70 kV power line would be constructed or operated. Thus, there would be no potential for hazardous materials exposure, accidental releases or related impacts from these activities. Potential hazardous materials impacts to the public and the environment would be the same as under baseline conditions. Therefore, **no impact** would occur under significance criteria A through E or G.

However, the No Project Alternative also would continue the status quo, where the regional transmission system would be susceptible to a N-1 or N-1-1 contingency (refer to Chapter 2 for discussion). It is reasonably expected that an N-1 or N-1-1 contingency would result in the loss of power to portions of Paso Robles for an extended period of time. Such a scenario could hinder emergency response and evacuation efforts generally (e.g., by preventing some electronic communications to residents). No feasible mitigation would be available to address this adverse effect. As a result, impacts under significance criterion F would be **significant and unavoidable.**

Alternative SS-1: Bonel Ranch Substation Site

Construction and operation of Alternative SS-1 would be similar to the proposed Estrella Substation. Thus, potential impacts from routine transport, use, and disposal of hazardous materials, and the potential to expose persons or the environment to such hazards would be the same. Like the Proposed Project, under Alternative SS-1, APM HAZ-1 would be implemented; a secondary containment structure would be included for transformer oil at the substation, and applicable federal, state and local laws related to hazardous materials would be followed during construction and operation. These measures would reduce the potential to create a significant hazard to the public or the environment. Therefore, impacts under significance criteria A and B would be **less than significant.**

No schools exist, nor are any schools proposed, within 0.25 mile of Alternative SS-1; therefore, **no impact** would occur under significance criterion C. Environmental databases do not identify any hazardous sites on or within 0.25 mile of the alternative substation site. While the agricultural nature of the Alternative SS-1 site indicates potential for pesticide soil contamination, implementation of APM HAZ-1 would reduce adverse effects on workers or the environment if contaminated soil were to be encountered during construction. As such, impacts under significance criterion D would be **less than significant.**

While Alternative SS-1 would be outside the ALUP area for the Paso Robles Municipal Airport, the alternative substation site is located roughly 4,000 feet northeast of a private air facility, Bonel Airport. Despite the close proximity, it is unlikely that Alternative SS-1 would pose a

hazard to aircraft because the substation would not include structures significantly taller than its surroundings (the substation would be located adjacent to existing 500 kV and 230 kV transmission lines). Therefore, impacts under significance criterion E would be **less than significant.**

Alternative SS-1 is located in a more rural location than the proposed Estrella Substation and construction is unlikely to substantially disrupt traffic flow along Estrella Road; however, if traffic control measures are not implemented for activities conducted within the roadway or for any temporary lane closures, this could result in a significant impact. Implementation of **Mitigation Measure TR-1** would minimize any potential impacts on emergency response and evacuation procedures from construction of Alternative SS-1, thereby ensuring that impacts under significance criterion F are **less than significant with mitigation**.

Compared to the Proposed Project, Alternative SS-1 would have elevated potential for wildfire hazard impacts. As shown in Figure 4.9-2, the Alternative SS-1 site would be located in a HFHSZ. While the site is currently used to grow alfalfa and is devoid of brush or dry grass, the Estrella River corridor and ruderal grasslands/rangelands are located nearby, increasing wildfire hazards and accidental ignition potential. Compliance with PRC and California Fire Code requirements (see discussion under Impact HAZ-7) would reduce the potential for accidental ignition of materials during construction activities and would minimize the potential for any accidental ignitions to evolve into uncontrolled wildfires. However, due to the elevated risk from being located in the HFHSZ, additional planning and care with respect to fire safety is warranted, as any careless actions during construction activities in this location could result in a significant impact by exposing people or structures to significant risk of loss, injury, or death involving wildland fires.

Therefore, **Mitigation Measure HAZ-1** would be implemented, which would require preparation and implementation of a project-specific fire prevention and management plan, including daily tracking of site-specific risk conditions and red flag warnings, coordination with CAL FIRE / San Luis Obispo County Fire Department officials, design and implementation of defensible space around the substation subject to CAL FIRE review, and other measures to further reduce potential wildfire impacts. Implementation of Mitigation Measure HAZ-1 would reasonably reduce the potential risks associated with constructing and operating Alternative SS-1 to a level that is less than significant. As such, impacts under significance criterion G would be **less than significant with mitigation.**

> **Mitigation Measure HAZ-1: Prepare and Implement a Fire Prevention and Management Plan.**
>
> For project or alternative components located within a very high or high fire hazard severity zone, HWT and PG&E shall prepare and implement a fire prevention and management plan. The document will address fire prevention measures that will be employed during the construction phases, identifying potential sources of ignition and detailing the measures, equipment, and training that will be provided to all site contractors. The fire prevention and management plan shall also address potential ignition risks during operation of the project or alternative components. Coordination with state and local fire agencies is required, as specified below, and the plan shall be submitted to the CPUC for final review and approval prior to start of construction. Where applicable, overlap with the HWT and PG&E Wildfire Mitigation Plans prepared

pursuant to California Public Utilities Code Section 8386 shall be highlighted in the fire prevention and management plan. Specifically, the plan will include, at a minimum, the following:

Construction Fire Hazard Avoidance and Minimization

- Responsibilities and duties;
- Preparedness training and drills for HWT, PG&E, and contractor personnel;
- Procedures for fire reporting, response and prevention, including:
    - Identification of daily site-specific risk conditions;
    - The appropriate tools and equipment needed on vehicles and on hand at the construction site(s);
    - Reiteration of fire prevention and safety considerations during tailboard meetings; and
    - Daily monitoring of the red-flag warning system with appropriate restrictions on types and levels of permissible activity.
- Coordination procedures with CAL FIRE / San Luis Obispo County Fire Department officials;
- Crew training, including fire safety practices and restrictions; and
- Methods for verifying that the plan protocols and requirements are being followed during construction.

Design and Operation Considerations to Minimize Fire Hazard

- Design and implementation of defensible space around substation components;
- Vegetation management activities and schedules for ensuring CPUC G.O. 95 clearance requirements are met for transmission line components;
- Coordination with the CAL FIRE / San Luis Obispo County Fire Department to provide any needed training and technical support to fire personnel regarding electrical fires and firefighting at energized facilities;
- Appropriate design of driveways and access roads to substation components to allow for safe and efficient fire personnel and equipment access;
- Development and implementation of protocols for de-energizing the substation and/or transmission line components in the event of a wildfire; and
- Inclusion of any needed water storage facilities on-site at the substation accessible to firefighters.

The fire prevention and management plan shall be reviewed by the San Luis Obispo County Fire Department. After Fire Department review, the plan shall be submitted to the CPUC for approval a minimum of 40 days prior to commencement of construction activities.

Alternative PLR-1A: Estrella Route to Estrella Substation

Due to its longer length (6.5 miles longer) and the longer duration of construction (16 months longer), Alternative PLR-1A would have greater potential for construction-related hazards and hazardous materials impacts than the Proposed Project 70 kV power line. In other words, due to the additional construction activity required for this alternative, there would be more opportunity for improper handling or disposal of hazardous materials, as well as leaks or accidental releases of hazardous materials from construction equipment or storage containers. However, like the Proposed Project, under Alternative PLR-1A, APM HAZ-1 would be implemented and applicable federal, state and local laws would be adhered to during construction, which would reduce the potential to create a significant hazard to the public or the environment. As a result, impacts under significance criteria A and B would be **less than significant.**

No schools exist within 0.25 mile of the Alternative PLR-1A alignment; therefore, no impact would occur under significance criterion C. Alternative PLR-1A would have similar or reduced potential to encounter soils contamination as the Proposed Project 70 kV power line given the predominantly agricultural land uses along the alignment (and potential for pesticide soil contamination). Fewer known hazardous sites exist within 0.25 mile of Alternative PLR-1A compared to the Proposed Project's 70 kV power line alignment, as shown in Figure 4.9-1. If contaminated soils or groundwater is encountered during construction of this alternative, implementation of APM HAZ-1 would reduce adverse effects to a less than significant level. Therefore, impacts under significance criterion D would be **less than significant.**

Portions of the Alternative PLR-1A alignment are within the ALUP area for the Paso Robles Municipal Airport. The Alternative PLR-1A structures would be of similar height to those under the Proposed Project, which the FAA determined would not exceed FAA obstruction standards. Like the Proposed Project 70 kV power line, the reconductoring segment for Alternative PLR-1A would not substantially change the height of structures and would be relatively far from the airport. As such, impacts under significance criterion E would be **less than significant**. Construction of Alternative PLR-1A is less likely to disrupt traffic flow compared to the Proposed Project since the alternative alignment runs through largely rural, agricultural lands and then eventually along Wellsona Road, which is not a main thoroughfare. Nevertheless, if construction activities within roadways in these areas or temporary lane or road closures were to be conducted without implementation of traffic control measures, this could result in a significant impact. Implementation of **Mitigation Measure TR-1** would require implementation of traffic control measures during construction of Alternative PLR-1A and would ensure that impacts to emergency response and evacuation procedures are less than significant. As a result, impacts under significance criterion F would be **less than significant with mitigation.**

A portion of Alternative PLR-1A is within the HFHSZ, which could increase wildfire risk for this alternative compared to the Proposed Project. Compliance with PRC and California Fire Code requirements (see discussion under Impact HAZ-7) would reduce the potential for accidental ignitions during construction activities and limit the potential for any accidental ignitions to

grow into uncontrolled wildfires. However, due to the elevated risk from being partially located in the HFHSZ, additional planning and care with respect to fire safety is warranted, as any careless actions during construction activities in this location could result in a significant impact by exposing people or structures to significant risk of loss, injury, or death involving wildland fires.

Therefore, **Mitigation Measure HAZ-1** would be implemented, which would require preparation and implementation of a fire prevention and management plan. Once constructed, Alternative PLR-1A would be maintained to achieve the vegetation clearances under G.O. 95. Compliance with applicable laws and implementation of Mitigation Measure HAZ-1 would reasonably reduce the potential wildfire hazards from Alternative PLR-1A to a level that is less than significant. Therefore, impacts under significance criterion G would be **less than significant with mitigation.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C would be similar in length to Alternative PLR-1A and would require a similarly extended construction duration compared to the Proposed Project. As such, the alternative would have the same potential for increased construction-related impacts from hazards and hazardous materials as Alternative PLR-1A (see above). Nevertheless, with implementation of APM HAZ-1 and compliance with existing hazardous materials laws and regulations, impacts under significance criteria A and B would be **less than significant.**

No schools exist, nor are any proposed, within 0.25 mile of the Alternative PLR-1C alignment; therefore, **no impact** would occur under significance criterion C. Alternative PLR-1C would have similar potential to encounter soils contamination given the predominantly agricultural land uses along the alignment (and potential for pesticide soil contamination). Fewer known hazardous sites exist within 0.25 mile of Alternative PLR-1C compared to the proposed 70 kV power line alignment (and no hazardous materials sites exist immediately on/within the Alternative PLR-1C alignment), as shown in Figure 4.9-1. If contaminated soils or groundwater are encountered during construction of this alternative, implementation of APM HAZ-1 would reduce adverse effects to a less than significant level. As such, impacts under significance criterion D would be **less than significant.**

As described in Section 4.9.3, portions of the Alternative PLR-1C alignment are within the ALUP area for the Paso Robles Municipal Airport (see Figure 4.11-3). The Alternative PLR-1C structures would be of similar height to those under the Proposed Project, which the FAA determined would not exceed FAA obstruction standards. Additionally, like the Proposed Project 70 kV power line, the reconductoring segment for Alternative PLR-1C would not substantially change the height of structures and would be relatively far from the airport. Therefore, impacts under significance criterion E would be **less than significant.** Construction of Alternative PLR-1C is less likely to disrupt traffic flow compared to the Proposed Project since the alternative alignment runs through largely rural, agricultural lands and then eventually along Wellsona Road, which is not a main thoroughfare. Nevertheless, if construction activities within roadways in these areas or temporary lane or road closures were to be conducted without implementation of traffic control measures, this could result in a significant impact. Implementation of **Mitigation Measure TR-1** would require implementation of traffic control measures during construction of Alternative PLR-1C and would ensure that impacts to emergency response and evacuation procedures are less than significant. As a result, impacts under significance criterion F would be **less than significant with mitigation.**

A greater proportion of Alternative PLR-1C, including Minor Route Variation 1, is located within or along the HFHSZ. This would increase potential wildfire hazards compared to Alternative PLR-1A and the Proposed Project. Compliance with PRC and California Fire Code requirements and G.O. 95 power line vegetation clearance requirements would reduce potential for accidental ignitions and adverse wildfire impacts during construction and operation of Alternative PLR-1C. However, due to the elevated risk from being partially located in the HFHSZ, additional planning and care with respect to fire safety is warranted, as any careless actions during construction activities in this location could result in a significant impact by exposing people or structures to significant risk of loss, injury, or death involving wildland fires. Therefore, **Mitigation Measure HAZ-1** would be implemented, which would further reduce potential wildfire impacts to a level that is less than significant. As a result, impacts under significance criterion G would be **less than significant with mitigation.**

Alternative PLR-3: Strategic Undergrounding, Option 1 & 2

Alternative PLR-3 would underground an approximately 1.2-mile portion of the proposed 70 kV power line. Thus, construction of Alternative PLR-3 (both Alternative PLR-3A [Option 1] and Alternative PLR-3B [Option 2]) would involve trenching along the length of the alignment, as well as construction of transition stations at each end of the underground alignment. Altogether, this would involve additional construction activity and associated hazardous materials use, transport, and disposal compared to the Proposed Project overhead 70 kV power line. As a result, Alternative PLR-3 would create additional opportunities for improper handling/management of hazardous materials or accidental releases of hazardous materials compared to the Proposed Project. However, implementation of APM HAZ-1, along with adherence to existing federal and state laws, would eliminate the potential for significant impacts (see Impact HAZ-1 and -2 for discussion). As such, impacts under significance criteria A and B would be **less than significant.**

No existing or proposed schools are located within 0.25 mile of Alternative PLR-3A or PLR-3B; therefore, **no impact** would occur under significance criterion C. Like the Proposed Project route, both Alternative PLR-3 route options would pass through developed areas with residential, commercial and industrial land uses just east of and along Golden Hill Road. Construction of Alternative PLR-3 may have increased potential to encounter subsurface contaminants from known hazardous materials sites in the area of Golden Hill Road; however, implementation of APM HAZ-1 would reduce these potential adverse effects to a level that is less than significant. As a result, impacts under significance criterion D for both Alternative PLR-3 options would be **less than significant.**

Alternative PLR-3 would be within the ALUP area for the Paso Robles Municipal Airport, but the majority of the alternative components (with the exception of the riser poles and associated facilities at the transition stations) would be underground and would not pose a hazard to aircraft. The riser poles and above-ground features at the transition stations would be of similar height to the overhead Proposed Project 70 kV power line, which were found by FAA to not pose a substantial hazard to aircraft. Therefore, impacts under significance criteria E would be **less than significant.** Construction of Alternative PLR-3 would require prolonged lane closures for trenching and related activities (refer to Chapter 3, *Alternatives Description*). If these activities were to substantially hinder emergency vehicle movement and evacuation procedures (e.g., residents attempting to leave the area during an emergency), this would result in a

significant impact. **Mitigation Measure TR-1** would require implementation of traffic control plan (e.g., signage and flaggers, maintenance of two-way traffic flow on all impacted streets or identification of detour routes, and notification of emergency response agencies in advance of lane or road closures), which would minimize potential adverse effects to a level that is less than significant. Therefore, the impacts on Alternative PLR-3 under significance criterion F would be **less than significant with mitigation.**

Like the Proposed Project, Alternative PLR-3 would not be located in a VHFHSZ or HFHSZ, although portions of the Alternative PLR-3 alignment (the northern portion) traverse areas of ruderal grasslands and oak woodland, which could provide fuel for a wildfire and be susceptible to ignition from construction activities. Compliance with PRC and California Fire Code requirements (see Impact HAZ-7 for discussion) would reduce the potential for accidental ignitions from construction activities under Alternative PLR-3 and limit the potential for any accidental ignitions to grow into uncontrolled wildfires. Once constructed, the Alternative PLR-3 components would be largely underground (with the exception of the transition stations) and would not pose a wildfire hazard. The transition stations would need to be maintained in accordance with G.O. 95 vegetation clearance requirements, which would minimize potential fire hazards. As a result, impacts under significance criterion G would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

Construction and operation of Alternative SE-1A would be similar to the proposed Estrella Substation. Thus, potential impacts from routine transport, use, and disposal of hazardous materials and the potential to expose persons or the environment to such hazards would be the same as the Proposed Project. Like the Proposed Project, APM HAZ-1 would be implemented, a secondary containment structure would be included for transformer oil, and existing federal, state, and local laws would be adhered to, thereby reducing the potential for construction or operation of Alternative SE-1A to create a significant hazard to the public or the environment. As a result, impacts under significance criteria A and B would be **less than significant.**

No schools exist, nor are any proposed, within 0.25 mile of the Alternative SE-1A site; therefore, **no impact** from hazardous emissions near schools would occur (significance criterion C). The Alternative SE-1A site is located in an agricultural area with a history of chemical fertilizer and pesticide use, and as such there is potential for encountering these contaminants in soil and groundwater. No known hazardous materials sites on or in the vicinity of the Alternative SE-1A site were identified in environmental databases. If contaminated soils or groundwater are encountered within the site footprint during construction of Alternative SE-1A, implementation of APM HAZ-1 would reduce adverse effects. Therefore, impacts under significance criterion D would be **less than significant.**

The Alternative SE-1A site is not located within the ALUP area for the Paso Robles Municipal Airport and is not located within 2 miles of any airport. Therefore, **no impact** would occur in regard to significance criterion E. Alternative SE-1A is located in a relatively rural location along El Pomar Drive. Nevertheless, if construction activities within roadways in this area or temporary lane or road closures were to be conducted without implementation of traffic control measures, this could result in a significant impact. Implementation of **Mitigation Measure TR-1** would require implementation of traffic control measures during construction of Alternative SE-1A and would ensure that impacts to emergency response and evacuation procedures are less than

significant. As a result, impacts under significance criterion F would be **less than significant with mitigation.**

The entirety of Alternative SE-1A would be located in a HFHSZ and potentially ignitable vegetation is present on and adjacent to the site, which would increase wildfire hazards compared to the proposed Estrella Substation. Compliance with PRC and California Fire Code requirements (see Impact HAZ-7 for discussion) would reduce potential for accidental ignitions during construction of Alternative SE-1A and for any accidental ignitions to grow into an uncontrolled wildfire. However, due to the elevated risk from being located in the HFHSZ, additional planning and care with respect to fire safety is warranted, as any careless actions during construction activities in this location could result in a significant impact by exposing people or structures to significant risk of loss, injury, or death involving wildland fires. Therefore, **Mitigation Measure HAZ-1** would be implemented, which would require preparation and implementation of a fire prevention and management plan. As described above under the Alternative SS-1 impact discussion, the fire prevention and management plan would further reduce potential wildfire impacts to a level that is less than significant. Therefore, impacts under significance criterion G would be **less than significant with mitigation.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Due to its shorter length (4.8 miles shorter) and shorter construction duration, Alternative SE-PLR-2 would have less potential for construction-related hazards and hazardous materials impacts compared to the Proposed Project. Construction of Alternative SE-PLR-2 would involve use of the same types of hazardous materials as the proposed 70 kV power line, but the reduced construction activity/schedule would result in fewer opportunities for accidental releases of materials or improper storage, transport, or disposal. Like the Proposed Project, APM HAZ-1 would be implemented during construction of Alternative SE-PLR-2 and federal, state and local laws related to hazards and hazardous materials would be followed, which would reduce potential impacts. As a result, impacts under significance criteria A and B would be **less than significant.**

No existing or proposed schools are located within 0.25 mile of the Alternative SE-PLR-2 alignment; therefore, **no impact** would occur from hazardous emissions near schools (significance criterion C). Environmental databases identified several existing hazardous sites within 0.25 mile of the northern terminus of the Alternative SE-PLR-2 route (although none are directly within the alignment), including two permitted USTs and one closed LUST clean-up site, located off Niblick Road, just west of South River Road (SWRCB 2019). If contaminated soils or groundwater were encountered during excavation of pole foundations or other ground-disturbing construction activities for the alternative, implementation of APM HAZ-1 would reduce potential adverse effects to construction workers, the public, and the environment. Therefore, impacts under significance criterion D would be **less than significant.**

Alternative SE-PLR-2 would not be within the ALUP area for the Paso Robles Municipal Airport and would not be within 2 miles of any airport. Therefore, there would be no potential for adverse effects on aircraft or for exposing persons to hazards from placing facilities within proximity to an airport. As a result, **no impact** would occur under significance criterion E. Construction activities for Alternative SE-PLR-2 could cause temporary disturbances to South River Road, which may be used as an evacuation route by residents in the area. Additionally, lane and/or road closures may be required for Alternative SE-PLR-2 in areas where the

alignment crosses County roadways (see crossing structure locations on Figure 3-15). If construction activities were to obstruct emergency vehicle access or cause significant congestion such as to limit the ability of residents to evacuate the area, this would be a significant impact. **Mitigation Measure TR-1** would be implemented, which would require implementation of traffic control measures and notification of emergency services departments of any planned lane or road closures. Implementation of Mitigation Measure TR-1 would reduce potential impacts on emergency response and evacuation to a level that is less than significant. Therefore, impacts under significance criterion F would be **less than significant with mitigation.**

The majority of the Alternative SE-PLR-2 route (south of Charolais Road) would be located in an HFHSZ. Much of the alignment traverses areas of grasslands and oak woodland, which could be highly susceptible to wildfire. As a result, any accidental ignition from construction equipment or the electrified 70 kV power line once operational could have significant effects on the surrounding rural residential community along South River Road and surrounding areas. As described in Impact HAZ-7, compliance with PRC and California Fire Code requirements would reduce the potential for accidental ignitions during construction and limit the potential for any accidental ignitions to develop into uncontrolled wildfires. However, due to the elevated risk from being partially located in the HFHSZ, additional planning and care with respect to fire safety is warranted for Alternative SE-PLR-2, as any careless actions during construction activities in this location could result in a significant impact by exposing people or structures to significant risk of loss, injury, or death involving wildland fires.

Therefore, **Mitigation Measure HAZ-1** would be implemented, which would require preparation and implementation of a fire prevention and management plan. Once constructed, Alternative SE-PLR-2 would be maintained to achieve the vegetation clearances under G.O. 95. Overall, compliance with applicable laws and implementation of Mitigation Measure HAZ-1 would reasonably reduce the potential wildfire hazards from Alternative SE-PLR-2 to a level that is less than significant. Therefore, impacts under significance criterion G would be **less than significant with mitigation.**

Alternative BS-2: Battery Storage to Address the Distribution Objective

Construction of BESSs under Alternative BS-2 would involve use of hazardous materials contained in construction equipment, including many of the same materials that would be used for construction of the Proposed Project. Improper use, storage, transport, or disposal of these materials, as well as accidental releases of such materials through upset or accident conditions, could potentially cause impacts to the public or the environment. It is assumed that all applicable federal, state, and local laws would be followed during BESS construction.

Of the example FTM BESS sites identified for analysis in the DEIR, FTM Site 4 is the only site within 0.25 mile of a school (Paso Robles High School). While construction of a BESS at FTM Site 4 would likely involve some hazardous emissions from operation of diesel equipment (e.g., diesel particulate matter), these emissions would be short-term, lasting the duration of the construction period, and would be similar in nature to any type of construction project. These emissions would not result in substantial health risks to students or staff at the school. Once operational, a potential BESS at FTM Site 4, which would likely be a lithium-ion battery installation, would not generate hazardous emissions.

Example FTM Sites 1-3 are located within 0.25 mile of three permitted USTs, although no hazardous materials sites are located on any of the FTM sites. Ground-disturbing activities for construction of BESS facilities under Alternative BS-2 at FTM Sites 1-3 (e.g., grading and excavation for BESS equipment foundations) could encounter contaminants that have migrated from the nearby hazardous sites; however, compliance with OSHA requirements would minimize potential impacts to workers, the public, and the environment in the event of such an occurrence.

With the exception of FTM Site 5, none of the example FTM sites would be located within an ALUP or within 2 miles of an airport. FTM Site 5 is located directly adjacent to the CAL FIRE Air Attack Base, which is adjacent to the Paso Robles Airport. Although a potential BESS at FTM Site 5 would be located very close to the airport, it would not pose a significant hazard to aircraft given that it would be no taller than surrounding buildings and airport facilities. Additionally, a BESS, if installed, would not include any employees permanently on-site, and thus would not expose persons to hazards from being located within an ALUP area.

Construction activities for Alternative BS-2 may require use of heavy construction equipment and would involve truck trips for delivery of materials to BESS sites. Lane closures or road closures are not anticipated to be necessary, but construction equipment and truck movement around sites could temporarily cause congestion or limit emergency vehicle movement. Example FTM Sites 1-4 would have greater potential for impacts than example FTM Sites 5-8 due to their location in more densely developed areas within the city limits of Paso Robles. It is assumed that encroachment permits would be obtained for any construction activities under Alternative BS-2 that may substantially impact the roadway.

Example FTM Sites 1-5 and 7 would be located within the LRA not mapped as VHFHSZ; therefore, these sites would have reduced potential for wildfire impacts. Example FTM Sites 6 and 8 would both be within the SRA HFHSZ, and thus would have elevated fire risk. Fire risk is a concern with BESS installations (particularly lithium-ion BESSs) and could pose a hazard to fire fighters and other first responders due to their chemical components. Fires associated with electric vehicles and various consumer electronics have shown that lithium-ion batteries have the potential to catch fire (Business Insider 2019; CNET 2016). Lithium-ion batteries contain a flammable electrolyte and have the potential for “thermal runaway,” which is a self-perpetuating cascade process where one compromised battery cell ignites adjacent cells, potentially resulting in a large-scale fire (SP Global 2019). Fires have occurred at utility-scale lithium-ion BESS installations, including one at the 2 MW BESS in Surprise, Arizona in April of 2019; however, utility-scale lithium-ion BESSs have been widely deployed in the U.S. (SP Global 2019; U.S. Energy Information Administration 2019). Improved safety standards are in development and safety certifications have been developed to reduce fire safety risk from lithium-ion BESSs as much as possible (SP Global 2019). Flow battery technology, which could be deployed at FTM Site 6, would have reduced fire risk because the electrolyte material is not flammable.

For construction activities at all FTM site examples, compliance with PRC and California Fire Code requirements (see Impact HAZ-7 for discussion) would reduce potential for accidental ignitions and for any accidental ignitions that do occur to develop into uncontrolled wildfires. Compliance with these existing laws and regulations would reduce wildfire hazard impacts during construction of BESSs. Once constructed, BESSs (in particular, lithium-ion BESSs) may

present a fire risk. UL 9540 is a safety standard specifically designed for electrochemical BESSs and includes, among other things, size and separation requirements to prevent a fire originating in one BESS unit from propagating to adjacent units (i.e., thermal runaway) (UL, LLC 2020). Implementation of this standard, along with compliance with local laws and regulations for fire safety, would reduce potential impacts from BESSs related to fire risk.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third-Party, Behind-the-Meter Solar and Battery Storage

Construction of BTM solar and battery storage facilities would involve use of relatively small amounts of hazardous materials from operation of construction equipment. BTM solar and storage facilities also would contain hazardous materials (e.g., earth metals), which could pose a hazard primarily during their disposal or recycling at the end of the usable life of the equipment. Compliance with existing laws and regulations related to hazardous materials, including OSHA and Cal/OSHA requirements and RCRA requirements as implemented through the Unified Program, would reduce potential hazards to workers installing BTM facilities, members of the public, and the environment.

The specific locations of development sites under Alternative BS-3 are unknown; therefore, it is unknown whether they would occur in close proximity to schools, known hazardous materials sites, or airports. In general, however, BTM solar and storage facilities would be installed primarily within, or on, existing buildings and would consist of relatively small products that would not pose a hazard to surrounding land uses. While installation of BTM facilities may use equipment that could generate hazardous emissions (e.g., diesel particulate matter), these emissions would be short-lived, relatively minor in scale, and not dissimilar from emissions generated by any other type of construction project. Once installed, BTM solar and battery storage facilities would not generate hazardous emissions. Given that BTM facilities would be installed primarily within or on existing buildings, it is unlikely that such BTM facilities would be located on existing hazardous materials clean-up sites. Even if located on known hazardous sites, substantial excavation and ground-disturbance would not typically be needed for BTM facility installation, thereby reducing the potential for adverse effects. Rooftop solar arrays could increase the height of existing buildings by a small amount (less than 10 feet), but this would not pose a substantial hazard to aircraft above existing conditions.

Given the relatively small scale of BTM facility construction projects, substantial disruptions to existing traffic conditions during construction, such as to significantly adversely affect emergency response and evacuation procedures, are unlikely. In particular, installation of residential solar and battery storage facilities would involve localized effects from delivery trucks and construction worker vehicles accessing the premises. Similarly, most commercial and industrial BTM solar and battery storage facilities would not substantially affect roadways or emergency vehicle movement due to deliveries of materials at the site, and none of these projects would require lane or road closures.

Lithium-ion BTM storage facilities could pose a fire safety hazard (see discussion under Alternative BS-2 above), but, when installed properly, this risk can be greatly mitigated. It is assumed that all applicable local codes and requirements would be followed for the permitting, siting, and installation of third-party BTM facilities that may result from procurement via the DIDF.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

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4.10 Hydrology and Water Quality

4.10.1 Introduction

This section evaluates impacts to hydrology and water quality from the Proposed Project, reasonably foreseeable distribution components, and alternatives. The impact analysis considers potential impacts in light of existing laws and the hydrologic conditions found in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives.

4.10.2 Regulatory Setting

Federal Laws, Regulations and Policies

Clean Water Act

The CWA is the primary federal law that protects the quality of the nation's surface waters. Relevant sections of the CWA are described below.

Section 303(d)

Under CWA Section 303(d), states are required to identify and make a list of water bodies that are polluted. In California, this responsibility falls to the SWRCB and its nine RWQCBs. In addition to identifying impaired water bodies, states must identify the pollutants causing the impairments; establish priority rankings for waters on the list, and develop a schedule for development of control plans to improve water quality, including development of total maximum daily loads (TMDLs).

Section 402

CWA Section 402 regulates facilities that discharge pollutants into waters of the U.S. through the National Pollutant Discharge Elimination System (NPDES). Under the NPDES, all facilities discharging pollutants from any point source into waters of the U.S. must obtain a NPDES permit. While originally focused on municipal and industrial discharges from pipes or other point sources, Section 402 of the CWA was amended in 1987 to include stormwater discharges which may be non-point source in nature. Phase I of the NPDES Storm Water Program imposed permitting requirements on several types of stormwater discharges, including certain industrial activities, medium (i.e., serving 100,000 to 250,000 people) and large (serving greater than 250,000 people) municipal separate sanitary sewer systems (MS4s), and construction sites disturbing 5 or more acres. Phase II of the Storm Water Program regulations, issued in 1999, expanded permitting requirements to include small (serving less than 100,000 people) MS4s, construction sites of 1 to 5 acres, and other certain previously exempt industrial facilities.

Construction General Permit

Most construction projects that disturb 1 acre or more of land are required to obtain coverage under the SWRCB's *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* ("Construction General Permit") (Order 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ), in accordance with CWA Section 402. The

general permit requires the applicant to file a public notice of intent to discharge stormwater and prepare and implement a SWPPP. The SWPPP must include a site map and a description of the proposed construction activities; demonstrate compliance with relevant local ordinances and regulations, and present a list of BMPs that will be implemented to prevent soil erosion and protect against discharge of sediment and other construction-related pollutants to surface waters. Enrollees in the Construction General Permit are further required to conduct monitoring and reporting to ensure that BMPs are correctly implemented and are effective in controlling the discharge of construction-related pollutants.

Municipal Stormwater Permitting Program

The SWRCB regulates stormwater discharges from MS4s, in accordance with Section 402 of the CWA, through its Municipal Storm Water Permitting Program. As described above, the MS4 permitting requirements were developed in two phases: Phase I and II. MS4 permits continue to be issued under Phase I or Phase II depending on the size of the MS4 seeking authorization. Phase II permits are issued pursuant to SWRCB Order No. 2003-0005-DWQ, NPDES General Permit No. CAS000004. SWRCB has determined that the following unincorporated communities located in San Luis Obispo County are subject to NPDES Phase II requirements:

1. Baywood-Los Osos;
2. San Luis Obispo urban fringe;
3. Nipomo;
4. Atascadero urban fringe;
5. Paso Robles urban fringe;
6. Templeton;
7. Santa Margarita;
8. Garden Farms;
9. Cambria; and
10. Oceano.

This would include portions of the Proposed Project area, which would fall within the Paso Robles urban fringe. To comply with the Phase II NPDES order, San Luis Obispo County has prepared a Storm Water Program, which is discussed further under Section 10.2.3 below. The City of Paso Robles also is subject to the Phase II permit, and has developed a stormwater program, as described in Appendix A of this DEIR.

Spill Prevention, Control, and Countermeasure Rule

The USEPA's SPCC Rule (40 CFR Part 112) applies to facilities with a single AST with a storage capacity greater than 660 gallons, or multiple tanks with a combined capacity greater than 1,320 gallons. The rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans. The SPCC rule applies to oil-filled equipment, including transformers, which store in excess of the threshold quantities of oil described above.

State Laws, Regulations, and Policies

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act (also known as the Porter-Cologne Act), passed in 1969, established the SWRCB and divided the state into nine hydrogeologic regions, each overseen by an RWQCB. In conjunction with the federal CWA, the Porter-Cologne Act is the principal law governing water quality regulation in California. The Porter-Cologne Act requires that each RWQCB develop a water quality control plan (also known as a Basin Plan) to identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. Waters of the State are defined differently than waters of the U.S., described above under CWA Section 404, and include any surface water or groundwater, including saline waters, which are within the boundaries of the state.

The Porter-Cologne Act also implements many provisions of the CWA, such as the NPDES permitting program, described above under "Federal Laws, Regulations, and Policies." Any entity discharging or proposing to discharge materials that could affect water quality must file a report of waste discharge with the applicable RWQCB.

Water Quality Control Plan for the Central Coast Basin

The purpose of the Water Quality Control Plan for the Central Coast Basin (Basin Plan) is to show how the quality of the surface and ground waters in the central coast region should be managed to provide the highest water quality reasonably possible (Central Coast RWQCB 2016). Specifically, the Basin Plan (1) designates beneficial uses for surface waters and groundwater; (2) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's antidegradation policy; (3) describes implementation programs to protect the beneficial uses of all waters in the region; and (4) describes surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan. The Central Coast RWQCB 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.

Designated beneficial uses for water bodies in the central coast basin potentially affected by the Proposed Project, reasonably foreseeable distribution components, and alternatives are shown in Table 4.10-1 in Section 4.10.3, "Environmental Setting."

Central Coast Post-Construction Requirements

On July 12, 2013, the Central Coast RWQCB 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, based on common key watershed processes and receiving water type (e.g., creek, marine nearshore waters, lake).

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).

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), passed in 2014, became law in 2015 and created a legal and policy framework to locally manage groundwater sustainably. The SGMA allows local agencies to customize groundwater sustainability plans to their regional economic and environmental conditions and needs, and establish new governance structures, known as Groundwater Sustainability Agencies (GSAs). The SGMA is intended to prevent undesirable results, which are defined as the following:

- Chronic lowering of groundwater levels (not including overdraft during a drought if a basin is otherwise managed).
- Significant and unreasonable reduction of groundwater storage.
- Significant and unreasonable seawater intrusion.
- Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.
- Significant and unreasonable land subsidence that substantially interferes with surface land uses.
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

The portion of the Proposed Project, reasonably foreseeable distribution components, and alternatives within the City of Paso Robles limits would be located within the City of Paso Robles GSA planning area (DWR 2019). The portion of the Proposed Project, reasonably foreseeable distribution components, and alternatives located outside of the City limits would be primarily within the County of San Luis Obispo GSA planning area (DWR 2019).

California Statewide Groundwater Elevation Monitoring Program

In 2009, the California State Legislature amended the California Water Code with SBx7-6, which mandates a statewide groundwater elevation monitoring program to track seasonal and long-term trends in groundwater elevations in California. Pursuant to this amendment, DWR established the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. The CASGEM Program establishes the framework for regular, systematic, and locally managed monitoring in all of California's groundwater basins. To facilitate implementation of the CASGEM Program and focus limited resources, as required by the California Water Code, DWR ranked all

of California's basins by priority: high, medium, low, and very low based on the following factors (DWR 2015):

1. Population overlying the basin;
2. Rate of current and projected growth of the population overlying the basin;
3. Number of public supply wells that draw from the basin;
4. Total number of wells that draw from the basin;
5. Irrigated acreage overlying the basin;
6. Degree to which persons overlying the basin rely on groundwater as their primary source of water;
7. Any documented impacts on the groundwater within the basin, including overdraft, subsidence, saline intrusion, and other water quality degradation; and
8. Any other information determined to be relevant by DWR.

DWR classifies the Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin as a high-priority basin, with noted nitrate and total dissolved solids impacts to groundwater (DWR 2014).

Storm Water Strategy

The SWRCB's Strategy to Optimize Resource Management of Storm Water (Storm Water Strategy) (SWRCB 2016) identifies the goals, objectives, and actions needed for the SWRCB and RWQCBs to improve the regulation, management, and utilization of California's stormwater resources. The overarching intent of the Storm Water Strategy is to establish the value of stormwater as a resource in California and encourage its application to beneficial uses (SWRCB 2016). Goals and objectives in the Storm Water Strategy potentially applicable to the Proposed Project include management of stormwater to preserve watershed processes and increasing source control to prevent pollution.

4.10.3 Environmental Setting

Regional and Watershed Setting

The Proposed Project, reasonably foreseeable distribution components, and alternatives are 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 Proposed 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 Huer Huero Creek sub-watershed to the east (CDOC 2010; San Francisco Estuary Institute 2016), as shown on Figure 4.10-1. Portions of Alternatives PLR-1A and PLR-1C are also located within the Estrella Subbasin (HUC 8), as well as the Salinas Subbasin, whereas Alternatives SE-1A and SE-PLR-2 are entirely located within the Salinas Subbasin; Paso Robles Creek-Salinas River sub-watershed (see Figure 4.10-1). Alternative SS-1 is located in the Estrella River Subbasin; Estrella River sub-watershed. Alternatives PLR-3A and PLR-3B are located within the Salinas Subbasin; Huer Huero Creek sub-watershed. The example FTM battery storage sites under Alternative BS-2 would primarily be located within the Salinas Subbasin; Paso Robles Creek-Salinas River sub-watershed.

Topography and Climate

The Proposed Project site elevation ranges from approximately 650 to 1,000 feet above mean sea level (msl). The surface topography ranges from flat (0 percent) to gently sloping rolling hills (0–20 percent) to steep slopes (>45 percent) along roadside cuts. The majority of the Proposed Project site (i.e., proposed Estrella Substation and new/reconductored 70 kV power line) parallels city and county roads and consists of agricultural land as well as suburban residential and commercial development. The reasonably foreseeable distribution components are located in areas of similar terrain.

The alternatives generally have similar elevation and topography characteristics. The substation sites under Alternatives SS-1 and SE-1A are generally flat, with the Alternative SS-1 site adjacent to the Estrella River. Much of the lengths of the new power line routes under Alternatives PLR-1A and PLR-1C traverse relatively flat agricultural land, whereas the reconductoring segment for these alternatives is similar in nature to the Proposed Project (although longer); which is to say it traverses hilly, at times, residential areas, as well as rural/agricultural areas further to the north. The lengths of the undergrounded routes under Alternative PLR-3 (both options) would have similar elevation and topography characteristics as the Proposed Project 70 kV power line in the area of Golden Hill Road. The Alternative SE-PLR-2 route traverses some hilly areas through mostly rural residential developments. Example FTM battery storage sites considered under Alternative BS-2 are typically flat and several are within areas of existing urban development.

San Luis Obispo County, within which the Proposed Project, reasonably foreseeable distribution components, and all alternatives are located, 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°F to 70°F. Inland temperatures are much more variable with average temperatures ranging from 35°F to 93°F. Precipitation in the region varies spatially and temporally with increasing precipitation typically occurring near the coast. Average annual rainfall in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives is 15.2 inches with approximately 90 percent of the rain falling between October and April.

Surface Water Hydrology and Quality

Drainage in the Proposed Project area has been affected by agriculture and development such that some natural watercourses no longer exist and some drainage in the area follows human-made channels or diversions. In particular, surface runoff at the Estrella Substation site drains downslope south toward Union Road and into a tributary of Huer Huero Creek. The greater substation vicinity has an overall northwest slope that follows the parallel Huer Huero Creek and Dry Canyon corridors. The proposed 70 kV power line segment crosses Huer Huero Creek and a number of unnamed drainages and swales, which flow into receiving waters, such as Huer Huero Creek, Dry Creek, and Salinas River.

The surface water hydrologic characteristics in the area of the reasonably foreseeable distribution components and alternatives have also generally been impacted by agriculture and development. The reasonably foreseeable distribution components would primarily be installed along existing roads in agricultural areas and/or within the SR 46 right-of-way. The proposed substation sites under Alternatives SS-1 and SE-1A are currently under agricultural production, whereas the example FTM battery storage sites under Alternative BS-2 for the most part have either been disced, graded, or planted over with grass. As noted above, Alternatives PLR-1A and PLR-1C mostly traverse agricultural lands, as well as some rural residential areas. Alternative SE-PLR-2 passes through generally less developed areas following South River Road, which parallels the Salinas River. As noted above, Alternative SS-1 would be located adjacent to the Estrella River, while the reconductoring segments for Alternatives PLR-1A and PLR-1C would cross Huer Huero Creek near North River Road and the confluence with the Salinas River (refer to Figures 3-5 and 3-7 in Chapter 3, *Alternatives Description*, for a detailed view of these alternatives in relation to surface waters).

Surface waters in the area of the Proposed Project, reasonably foreseeable distribution components, and alternatives are described further below. Beneficial uses for water bodies in this area are shown in Table 4.10-1**.**

Salinas River

The Salinas River is the largest river of the central coast, running 170 miles from Santa Margarita and flowing north-northwest through the central California Coast Ranges to Monterey Bay. The 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. As shown on Figure 4.10-1, the Proposed Project reconductoring segment generally follows the river for 3 miles, but never crosses it. The reconductoring segments for Alternatives PLR-1A and PLR-1C also generally follow the river, as does the alignment under Alternative SE-PLR-2, which follows South River Road south of the Paso Robles Substation.

The Upper Salinas River (from Nacimiento River to Santa Margarita Reservoir; approximately 13.5 miles downstream of the Proposed Project) is listed as impaired by SWRCB on the most recently approved CWA 303(d) listing (SWRCB 2017). Pollutant categories include salinity (chloride and sodium) and pH (miscellaneous pollutants). Although SWRCB has not identified the sources for these pollutants, salinity pollution is typically caused by excessive runoff from 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).

Huer Huero Creek

Huer Huero Creek flows over 14 miles in a northwest direction from the Coast Range south of Creston to Salinas River in Paso Robles. The creek is divided into two main drainages, bisected by 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 Proposed Project 70 kV Power Line spans Huer Huero Creek approximately 1,000 feet east of the intersection of Union Road and Kit Fox Lane. The 70 kV Minor Route Variation 1 is under consideration at roughly the location where the new 70 kV power line would cross Huer Huero Creek along Union Road in the event that an active golden eagle nest is located in this area. As noted above, the reconductoring segments for Alternatives PLR-1A and PLR-1C also cross Huer Huero Creek near the confluence with the Salinas River. Huer Huero Creek is not designated as impaired for any pollutants pursuant to CWA Section 303(d).

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 Proposed Project, at its nearest point, is approximately 1,500 feet south of Dry Creek and does not cross the drainage. Alternative PLR-1A would cross Dry Creek northeast of the proposed Estrella Substation. Dry Creek is not identified as impaired for any pollutants pursuant to CWA Section 303(d).

Estrella River

The Estrella River and some of its tributaries carry perennial underground flows that form a tributary of the Salinas River. The Estrella River forms from the confluence of San Juan Creek and Cholame Creek near Shandon, in the foothills of the Coast Ranges. The confluence of the Salinas and Estrella Rivers occurs in Northern San Luis Obispo County, within the town of San Miguel (US-LT RCD 2014). Alternative SS-1 would be located approximately 200 feet south of the Estrella River. Alternative PLR-1C, Minor Route Variation 1 would route the 70 kV line along Estrella Road west (adjacent to the river), until turning south down Jardine Road. Segments of the Estrella River are listed as impaired by SWRCB on the most recently approved CWA 303(d) listing, including for toxicity, boron, chloride, sodium, conductivity, pH, dissolved oxygen, turbidity, and indicator bacteria (SWRCB 2017). Beneficial uses for the Estrella River are shown in Table 4.10-1.

Table 4.10-1. Beneficial Uses of Surface Waters Potentially Affected by the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives

Water Body	Beneficial Use																				
	MUN	AGR	PRO	IND	GWR	REC1	REC2	WILD	COLD	WARM	MIGR	SPWN	BIOL	RARE	EST	FRESH	NAV	POW	COMM	AQUA	SAL	SHELL
Salinas River, Reservoir - Headwaters	X	X			X	X	X	X	X		X	X				X			X			
Huerhuero Creek	X	X			X	X	X	X		X				X					X			
Estrella River	X	X			X	X	X	X		X		X							X			

Notes: MUN = Municipal and Domestic Supply; AGR = Agricultural Supply; PRO = Industrial Process Supply; IND = Industrial Service Supply; GWR = Ground Water Recharge; REC1 = Contact Water Recreation; REC2 = Non-contact Water Recreation; WILD = Wildlife Habitat; COLD = Cold Freshwater Habitat WARM = Warm Freshwater Habitat; MIGR = Migration of Aquatic Organisms; SPWN = Spawning, Reproduction, and/or Early Development; BIOL = Preservation of Biological Habitats of Special Significance; RARE = Rare, Threatened, or Endangered Species; EST = Estuarine Habitat; FRSH = Freshwater Replenishment; NAV = Navigation; POW = Hydropower Generation; COMM = Commercial and Sport Fishing; AQUA = Aquaculture; SAL = Inland Saline Water Habitat; SHELL = Shellfish Harvesting.

Source: Central Coast RWQCB 2019

Wetlands and Other Drainages

SWCA Environmental Consultants (SWCA) performed reconnaissance-level surveys for the Proposed Project substation site and 70 kV power line and reconductoring segment route to identify waters, wetlands, and riparian areas that may be subject to regulatory jurisdiction. 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 the Estrella Substation were surveyed. These surveys identified 12 unnamed ephemeral drainages (likely to be considered jurisdictional) within the study 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 Huer Huero Creek and/or Salinas River.

Wetlands are also discussed in Section 4.4, "Biological Resources." SWCA identified five potentially jurisdictional wetlands in its Biological Study Area, although only two of these occurred within the Proposed Project area: two seasonal wetlands approximately 200 feet east of Buena Vista Drive. SWCA also observed several non-jurisdictional drainage swales near the proposed Estrella substation, but outside of the Proposed Project footprint. Along the new 70 kV power line segment, SWCA identified various swale features which convey overland sheet flow and agricultural runoff; however, these features lack a defined bed, bank, or ordinary high water mark and, therefore, were not considered to be jurisdictional.

SWCA subsequently mapped wetlands, drainages, vernal pools, and other waters for Alternatives PLR-1A, SE-1A, and SE-PLR-2, as described in response to CPUC Data Request #2 (HWT and PG&E 2019). SWCA did not map features for Alternatives PLR-1C and SS-1 due to lack of property access. SWCA's findings confirmed the presence of many of the unnamed features shown on Figure 4.10-1, as well other unmapped features that occur in proximity to the alternative alignments. No surface waters were identified within the footprint of Alternative SE-1A.

In the vicinity of Alternative PLR-3A and PLR-3B (as well as the Proposed Project 70 kV route), two man-made drainage features were identified, as follows:

1. A rip-rapped swale located along the east side of Golden Hill Road, which receives runoff from the road, directing it to a low-lying grassy area. The low-lying grassy area also receives runoff from the east from the Cava Robles RV Park via a culvert (Sagrafena, pers. comm., 2020).

2. An earthen stormwater detention basin located immediately south of the Cava Robles RV Park driveway/access road, east of Golden Hill Road, and north of San Antonio Winery. Approximately 4 acres in size, this basin receives stormwater runoff from surrounding residential and commercial areas along Golden Hill Road. During a February 2020 survey, the feature did not exhibit ordinary high water marks, bed or banks, hydrophytic vegetation, or connectivity to waters of the United States (SWCA 2020).

Groundwater

The Proposed Project, reasonably foreseeable distribution components, and Alternatives SS-1, PLR-1A, PLR-1C, PLR-3 (both options) and example FTM Sites 1, 2, 3, 4, 5, and 8 would be located within the Salinas Valley Groundwater Basin, Paso Robles Area Subbasin (DWR Basin No.

3-4.06). The Paso Robles Area 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. 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). Figure 4.10-2 shows the Paso Robles Area Subbasin.

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. 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 Area Subbasin supplies water for 29 percent of San Luis Obispo County's population and an estimated 40 percent 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 percent 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 Area Subbasin 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 percent of the total annual yield. Approximately 66 percent of basin outflows occurred as a result of agriculture pumping, while 19 percent was pumped for urban municipal use, 12 percent was pumped for domestic water use in rural areas, and 3 percent 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 Robles 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.

Although the Central Coast RWQCB reports indicate that groundwater levels have remained steady (DWR 2003), long-term County observation of groundwater levels has found a large area of drawdown. The Proposed 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 percent of the area of the groundwater basin but approximately 40 percent 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 indicate that spring groundwater levels declined more than 70 feet between 1997 and 2009 in the most affected area (County of San Luis Obispo 2011a).

Alternative SE-1A and example FTM Site 6 lie within the Atascadero Subbasin, while Alternative SE-PLR-2 lies within both the Atascadero Subbasin and the Paso Robles Area Subbasin (see Figure 4.10-2). FTM Site 7 lies outside of both subbasins. The Atascadero Subbasin has had stable groundwater levels over a period of more than 30 years, even as the Paso Robles Area Subbasin (Estrella Subarea) has shown a trend of significant water level decline (see discussion above). For the period from 1997 to 2013, water level changes in wells within the Atascadero Subbasin remained relatively steady, with a small area in the northern part of the basin showing minor declines, and some areas of the basin showing water level increases over the time period. Wells located in the central portion of the Atascadero Subbasin show that water elevations were generally stable at approximately 770 feet msl until about 2012 to 2013, when slight declines were observed due to the ongoing drought (Templeton Community Services District 2016).

Floodplains, Tsunamis, Seiches, and Mudslides

The 100-year flood hazard zones for several water bodies (Salinas River, Estrella River, Huer Huero Creek) are shown in relation to the Proposed Project, reasonably foreseeable distribution components, and alternatives on Figure 4.10-3. As shown on Figure 4.10-3, a portion of the Proposed Project 70 kV power line route would cross the flood hazard zone for Huer Huero Creek. Portions of the reconductoring segment for the Proposed Project also would overlap with the Salinas River 100-year flood hazard zone.

The Bonel Ranch Substation Site (Alternative SS-1) would not be located within the 100-year flood hazard zone for the Estrella River. Alternative PLR-1A would cross the flood hazard zone for Dry Creek, while portions of Alternative PLR-1C would be located within the 100-year flood hazard zone for the Estrella River (primarily Minor Route Variation 1). Both Alternatives PLR-1A and PLR-1C would also cross the 100-year flood hazard zones for Huer Huero Creek and Salinas River in places. Portions of Alternative SE-PLR-2 also would be located within the 100-year flood hazard zone for the Salinas River. Neither the Templeton Substation Expansion site (Alternative SE-1A), Strategic Undergrounding routes (Alternatives PLR-3A and PLR-3B) or any of the example

FTM battery storage sites would be located in a 100-year flood hazard zone. Example FTM Sites 1, 3, and 4 would be located in the 0.2 percent annual chance (500-year) flood hazard zone.

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. 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 2003).

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 Proposed Project, reasonably foreseeable distribution components, and alternatives are located at 650 to 1,000 feet above msl more than 15 miles away from the Pacific coastline and are not in a tsunami inundation zone (CDOC 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 Proposed Project site is not located near a lake or reservoir and is not susceptible to seiche.

As described in Section 4.7, "Geology, Soils, Seismicity, and Paleontological Resources," the Proposed Project, reasonably foreseeable distribution components, and alternatives are located in areas of low to high 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.

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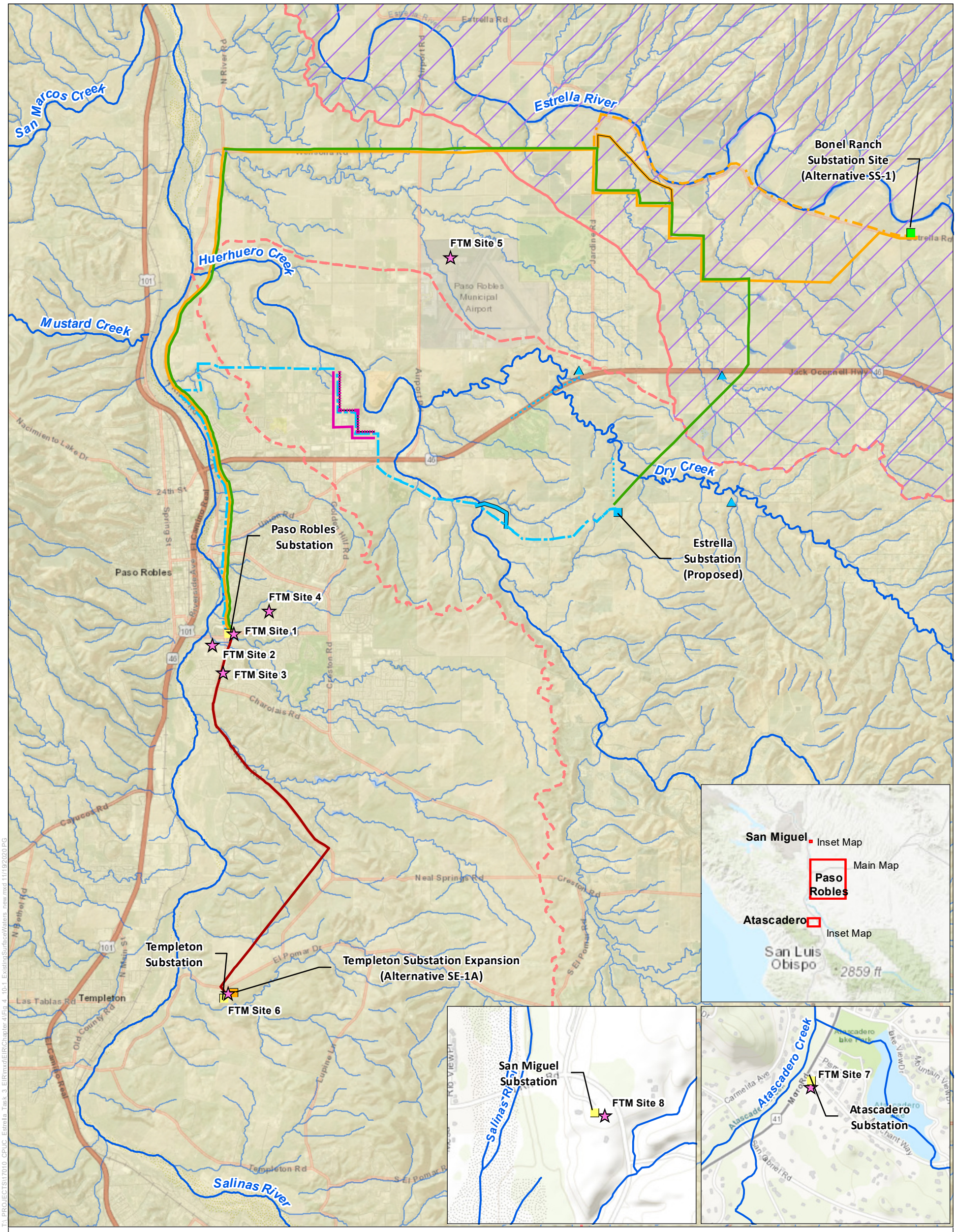

Figure 4.10-1
Existing Surface Waters

Source: ESRI 2018, PG&E 2019, SCWA 2017, USGS NHD 2019

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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San Miguel Substation
FTM Site 8
SALINAS VALLEY - PASO ROBLES AREA
Bonel Ranch Substation Site (Alternative SS-1)
FTM Site 5
Estrella Substation (Proposed)
FTM Site 4
FTM Site 1
FTM Site 2
FTM Site 3
Paso Robles Substation
SALINAS VALLEY - ATASCADERO AREA
Templeton Substation
FTM Site 6
Templeton Substation Expansion (Alternative SE-1A)
Atascadero Substation
FTM Site 7
Main Map
Paso Robles
San Luis Obispo
2859 ft

Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Groundwater Features

- Groundwater Basin
- Atascadero Basin GSA
- City of Paso Robles GSA
- County of San Luis Obispo GSA - Paso Robles Area
- San Miguel Community Services District GSA
- Shandon-San Juan GSA

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.10-2
Groundwater Basins

Source: ESRI 2018, PG&E 2019, DWR 2019, SLO 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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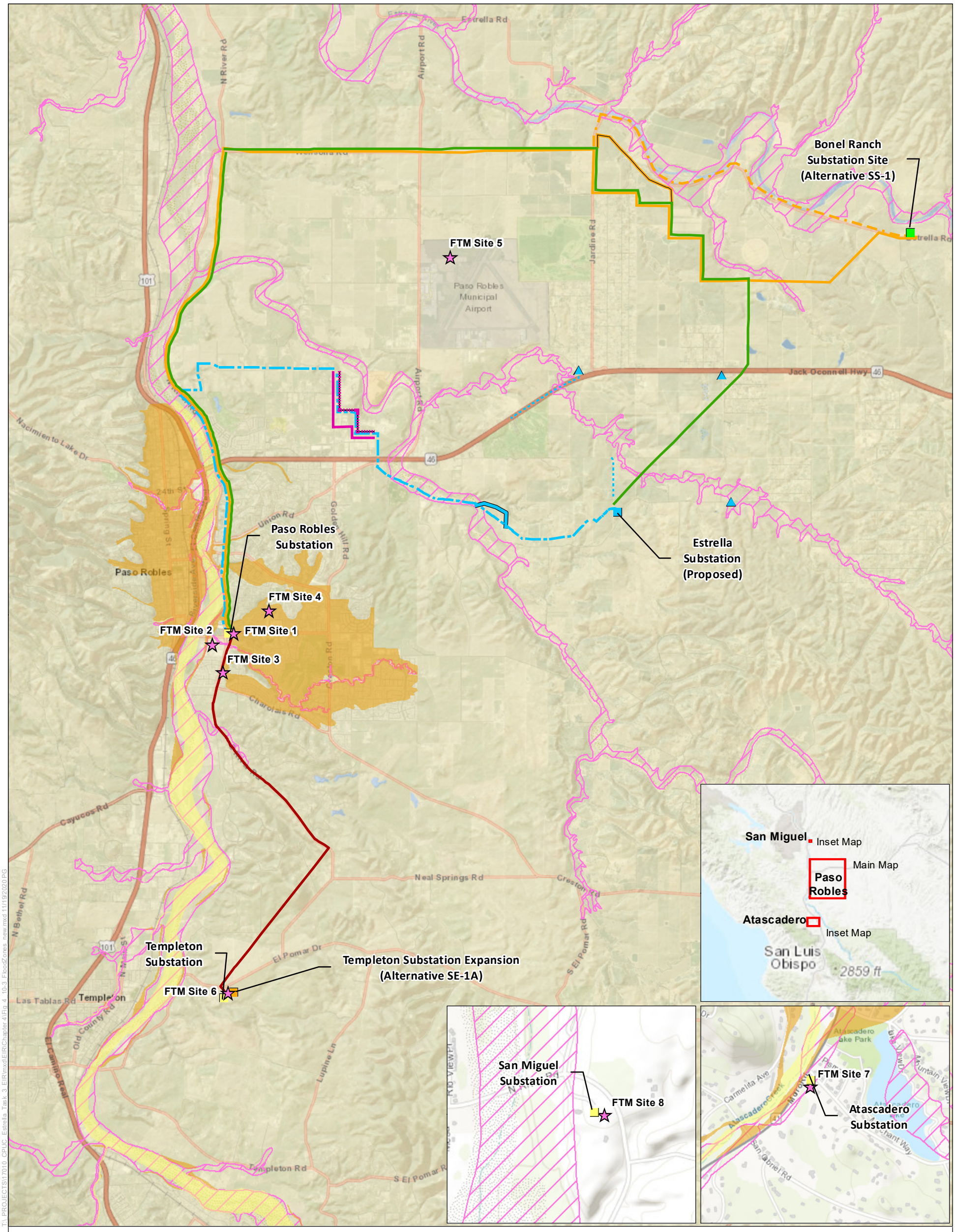

Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Flood Zone Features

- 0.2% Annual Chance Flood Hazard
- Regulatory Floodway
- 1% Annual Chance Flood Hazard

N

0 1 Miles

Source: ESRI 2018, PG&E 2019, FEMA 2012

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Horizon WATER and ENVIRONMENT

Figure 4.10-3
Flood Zones

Estrella Substation and
Paso Robles Area Reinforcement Project

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4.10.4 Impact Analysis

Methodology

Impacts related to hydrology and water quality were evaluated qualitatively by considering aspects of the Proposed Project, reasonably foreseeable distribution components, and alternatives as they relate to applicable CEQA Guidelines Appendix G significance criteria (identified below) and the existing regulatory and environmental settings.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, and the alternatives would result in a significant impact on hydrology and water quality if they would:

A. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;

B. Substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

C. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

   i. result in substantial erosion or siltation on- or off-site;

   ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

   iii. 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; or

   iv. impede or redirect flood flows.

D. Risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.

E. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Environmental Impacts

Proposed Project

Impact HYD/WQ-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality – *Less than Significant*

Applicable water quality standards would include the beneficial uses identified for waters potentially affected by the Proposed Project (see Table 4.10-1). The Proposed Project would not constitute a point-source of pollution and would not be subject to individual WDRs; however, construction of the Proposed Project would be subject to the Construction General Permit (see further discussion below). The Proposed Project also would be subject to stormwater standards and requirements under the Phase II NPDES permits for the City of Paso Robles and County of San Luis Obispo.

Construction

Construction of the Estrella Substation and new and reconductored 70 kV power line segments would involve substantial grading and excavation, and use of construction equipment containing hazardous materials, such as fuel, oil, and grease. Without adequate preventative measures during construction of the Proposed Project elements, erosion of loosened soils or spills of hazardous materials could result in transport of such materials to waterbodies, resulting in adverse water quality impacts. Accidental releases of hazardous materials from construction equipment also could leach through the soil and into the groundwater below, thereby adversely affecting water quality and beneficial uses.

Because the Proposed Project would disturb greater than 1 acre of land, it would be subject to the Construction General Permit. As described in Section 4.10.2, this permit would require development of a SWPPP, which would include BMPs to prevent soil erosion and protect against discharge of sediment and other construction-related pollutants to surface waters. Typical BMPs for erosion and sedimentation control that may be implemented during Proposed Project construction would include scheduling or limiting activities to certain times of the year (i.e., during the dry season); installing sediment barriers (e.g., silt fence and fiber rolls) along the perimeter of the construction area; and implementing sediment-tracking controls, such as stabilizing entrances to the construction site. These BMPs would limit potential for precipitation to wash loose soils and dirt from off the construction site, physically capture and detain sediment that may attempt to wash off the site, and/or stabilize key areas of the construction site to prevent loose soils from being tracked off-site.

The SWPPP also would include good housekeeping measures to prevent spills of fuel and other hazardous materials in construction equipment and vehicles and to ensure proper storage and disposal of materials on the construction site. Implementation of the SWPPP would prevent the vast majority of potential water quality impacts during Proposed Project construction. In addition to the SWPPP, implementation of APM HAZ-1, which would include hazardous materials spill response measures, would further decrease potential for adverse water quality impacts during construction of the proposed substation and power line. As described in Chapter 2, *Project Description,* APM HAZ-1 would provide training to construction workers appropriate to the site worker's role in hazardous substance control and emergency response, including

protocols for stopping work at a location and contacting the County Fire Department Hazardous Materials Unit immediately if visual contamination or chemical odors are detected. Quick identification of hazardous materials spills by construction site workers and awareness of proper emergency response protocols would minimize the potential for construction-related hazardous materials spills to cause uncontrolled, substantial damage to surface or groundwater quality.

In general, the Proposed Project is designed to avoid direct impacts on surface water bodies in the area. As shown in Figure 2-7 (see Chapter 2, *Project Description*), pole locations for the new and reconductored power line segments would avoid mapped waters, and there are no existing drainages within the proposed substation footprint. Implementation of APM HYDRO-1 would further avoid sensitive aquatic features during final project design and final siting/establishment of temporary disturbance areas, including staging areas. APM HYDRO-1, among other things, would require that the Applicants (refer to Chapter 2 for full text of the APM):

- site permanent structures in uplands outside of existing drainage features;
- site staging areas, pole/tower work areas, pull sites, and other temporary staging/materials storage areas in uplands outside of existing drainage features/riparian areas, and
- select access roads and overland travel routes in uplands while avoiding other sensitive features (e.g., steep slopes, rare plant localities, and sensitive wildlife habitats).

Additionally, APM HYDRO-1 would require that sensitive aquatic features slated for avoidance be identified and marked for avoidance in the field (e.g., using flagging tape, fencing, and/or high-visibility signage) and that construction personnel be trained in feature avoidance marking and associated restrictions. Implementation of this APM would reduce potential for impacts on existing aquatic features.

Given compliance with the Construction General Permit and implementation of APMs HAZ-1 and HYDRO-1, construction of the Proposed Project would not violate or degrade any of the beneficial uses identified for waters in proximity to the Proposed Project areas. By complying with the Construction General Permit, construction of the Proposed Project also would not violate any applicable WDRs or otherwise substantially degrade surface or ground water quality. Therefore, this impact would be **less than significant**.

Operation

During operation, the Proposed Project could potentially degrade surface or groundwater quality from discharge of polluted stormwater, accidental releases of hazardous materials, or erosion-related impacts from use of access roads during operations and maintenance activities. The new Estrella Substation would create approximately 2 acres of new impervious surface (the new and reconductored 70 kV power line segments would create minimal isolated impervious surfaces associated with the pole foundations). Compared to the current ground cover at the substation site, this new surface would generate greater quantities of stormwater (i.e., less precipitation during storm events would infiltrate into the soil), some of which could be polluted. Hazardous materials, such as transformer oil, would be stored on the substation site, and routine maintenance activities at the substation could involve use of solvents and paints, which could adversely affect water quality if discharged from the site in stormwater.

As described in Chapter 2, *Project Description,* the new Estrella Substation would include stormwater and hazardous materials management features, which would minimize potential for discharges of contaminated stormwater or releases of hazardous materials. This would include a concrete skimmer and weir device for settling and collection of sediment washed down by stormwater at the 70 kV substation, as well as a secondary containment structure for the transformer oil stored at the 230 kV substation. Additionally, as noted under "Construction" above, the Applicants would implement APM HAZ-1, which would include worker training, proper hazardous materials storage and handling, and spill prevention and control procedures. The Applicants also would prepare an HMBP in accordance with the California Hazardous Waste Control Act (see Section 4.9, "Hazards and Hazardous Materials"), which would describe materials storage, management, and disposal protocols required during operation. Preparation and implementation of the HMBP would be subject to oversight and enforcement by the San Luis Obispo County Department of Environmental Health Services. Inclusion of the stormwater management and spill containment features in the substation design, as well as implementation of APM HAZ-1 and the HMBP, would minimize potential for adverse water quality effects from stormwater or hazardous materials releases.

Routine maintenance of the power line structures and conductors would require travel overland on access roads or off-road and may require use of helicopters to access the site. Travel over rough terrain and unpaved roads could result in erosion or disturbance of loose soils, which could result in sediment being transported to downstream water bodies in precipitation events. Routine maintenance activities for the power line segments also could involve use of hazardous materials, which could accidentally spill, resulting in water quality impacts. Implementation of APM HYDRO-1 would reduce potential for water quality impacts by 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). By utilizing access routes and travel routes in uplands and avoiding sensitive features, including aquatic features, this would reduce the potential for erosion and sedimentation to degrade downstream water bodies, potentially resulting in violations of water quality objectives supporting designated beneficial uses.

Additionally, implementation of APM HAZ-1 would minimize potential for accidental discharges of hazardous materials and reduce impacts should a spill occur (i.e., through a quick and effective spill cleanup response) during routine maintenance activities. As described under "Construction" above, APM HAZ-1 would provide training to workers appropriate to the site worker's role in hazardous substance control and emergency response, including protocols for stopping work at a location and contacting the County Fire Department Hazardous Materials Unit immediately if visual contamination or chemical odors are detected. This would apply to workers conducting operation and maintenance activities as well as site construction workers. Quick identification of hazardous materials spills by maintenance workers and awareness of proper emergency response protocols would minimize the potential for hazardous materials spills to cause uncontrolled, substantial damage to surface or groundwater quality.

Overall, with incorporation of stormwater management and spill containment design features and implementation of applicable APMs, operation of the substation and new and reconductored power line segments would not violate or degrade any designated beneficial uses for waters in proximity to the Proposed Project features. Given the substation's remote location (lack of connection to the municipal stormwater system) and inclusion of on-site

stormwater management features, it also would not violate requirements in the Phase II NPDES permit for San Luis Obispo County. Therefore, this impact would be **less than significant.**

Impact HYD/WQ- 2: Substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin – *Less than Significant*

Water required for Proposed Project construction may come from several sources, including a private well located adjacent to the western edge of the Estrella Substation site; a municipal water source, delivered by water trucks; or Lake Nacimiento, which is located northwest of Paso Robles. It is estimated that construction of the substation and 70 kV power line will require approximately 10.3 million gallons (roughly 32 acre-feet) of water, the majority of which would be used for dust control.

As described in Section 4.10.3, the estimated perennial yield of the Paso Robles Area Subbasin is approximately 97,700 afy, while annual groundwater pumping in this subbasin is roughly 88,150 afy. As such, in any given year, there is approximately 9,550 acre-feet of available water in the Paso Robles Area Subbasin (i.e., difference between estimated perennial yield and annual groundwater pumping) that can be obtained without overdrawing the basin. The estimated 32 acre-feet-plus needed for construction of the Proposed Project would be well within the perennial yield of the Paso Robles Subbasin taking into account other users. Thus, even if all of the construction water was obtained from groundwater, it would not substantially impact supplies or impede sustainable management of the basin.

Over the long term, the new impervious surface (approximately 2 acres) from the Estrella Substation would reduce groundwater recharge in the immediate area (the minor additional impervious surface from new power line pole foundations would have a negligible effect on groundwater recharge). Existing groundcover at the proposed substation site is pervious (vineyard row crops); therefore, rain falling on the site currently may infiltrate into soil down to the groundwater table below. Following development of the substation, rain falling on the site would not be able to infiltrate into the soil immediately, but instead may flow off the substation pad onto adjacent undeveloped surfaces. Once discharged from the substation site, however, captured stormwater would still have the opportunity to infiltrate into soil and groundwater, thereby minimizing potential impacts to groundwater recharge.

Overall, given the size of the new substation relative to the surrounding undeveloped area (the substation would occupy a 15-acre site within a 98.6-acre agricultural parcel, which itself is located within a tract of hundreds of acres of agricultural land on the north side of Union Road), development of the Proposed Project would be unlikely to substantially affect recharge rates in the Paso Robles Subbasin. As described in Section 4.10.2, groundwater sustainability planning efforts are underway for the Paso Robles Area Subbasin and, while Groundwater Sustainability Plans (GSPs) are not yet completed, the Proposed Project components would not conflict with or obstruct sustainable management of the groundwater basin. As such, this impact would be **less than significant.**

Impact HYD/WQ-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site – *Less than Significant*

Construction of the Proposed Project would involve ground clearing, excavation, and other ground-disturbing activities at the substation site and along the proposed 70 kV power line route and reconductoring segment. These activities would temporarily alter existing drainage patterns at these locations. During the construction period, open excavations may collect rainwater while loosened soil denuded of vegetation may increase rates of erosion. New access roads and temporary work areas and staging areas also may change the topography of existing sites (i.e., typically by flattening or reducing slope). Generally, existing topography of disturbed sites would be restored following completion of construction. As described in Chapter 2, all areas temporarily disturbed by the Proposed Project would be restored to the extent practicable, including returning areas to their original contours and drainage patterns (this would be accomplished through re-grading or other earthmoving processes).

As described in Impact HYD/WQ-1, the Proposed Project would be required to obtain coverage under the Construction General Permit, including implementing a SWPPP. The SWPPP would include construction BMPs for erosion prevention and to control site runoff (e.g., scheduling or limiting construction activities to the dry season, installing silt fence or fiber rolls around the perimeter of the construction area, and stabilizing construction site entrances), which would avoid or minimize potential impacts from erosion or siltation on- or off-site. The SWPPP BMPs would limit potential for precipitation to wash loose soils and dirt from off the construction site, physically capture and detain sediment that may wash off the site, and/or stabilize key areas of the construction site to prevent loose soils from being tracked off-site, thereby reducing potential for polluted construction stormwater runoff to migrate off-site. Therefore, this impact would be **less than significant.**

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite – *Less than Significant*

The new impervious surface from the Estrella Substation would increase the rate and amount of surface runoff in this immediate area, as precipitation falling on the site would no longer be able to infiltrate directly into the soil and would travel more quickly across the hard surface. As discussed under Impacts HYD/WQ-1 and HYD/WQ-2 above, the proposed substation would include stormwater management features, including a concrete skimmer and weir device for collecting sediment-laden stormwater. The velocity of stormwater generated on-site also would be controlled through manual operation of release valves and rock-lining at the outfall structures.

Flow calculations were conducted as part of the PEA for a 25-year storm event at the proposed 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 along Union Road of approximately 9 cubic feet per second, resulting in a depth of flow of approximately 0.5 feet (NEET West and PG&E 2017). This would be below the ditch depth of 1 foot and would not result in flooding. Although not quantitatively modeled, if a 100-year storm event occurred at the site, it could potentially result in flooding along the drainage ditch; however, this flooding would be limited to Union Road and

would not reasonably threaten any homes or structures in the area. Additionally, with this level of precipitation, some flooding might occur even without the substation and the additional 2 acres of impervious surface that would be created through the Proposed Project. Due to the low probability of a precipitation event with greater than a 25-year frequency interval and the limited potential effects on structures or people from potential flooding along or adjacent to the substation site, this impact would not be significant. Overall, the new substation would not substantially affect existing drainage patterns such as to result in flooding on- or off-site. Therefore, this impact would be **less than significant.**

iii. 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*

As described above, the new substation would generate increased volumes of stormwater runoff from the new impervious surfaces. This stormwater would be managed on-site and released through outfall structures towards the drainage ditch along Union Road. This drainage ditch is not part of a municipal stormwater collection system, and flow calculations conducted as part of the PEA found that stormwater from a 25-year storm event at the proposed substation would not exceed the capacity of the ditch such as to cause flooding. Although it is possible some flooding along the ditch could occur during a precipitation event with greater than a 25-year frequency interval, due to the low annual probability of such an event and the limited potential effects of such flooding on the surrounding area (no homes or other structures are located in harm's way and the ditch is not connected to a municipal stormwater system), this impact would not be significant. In accordance with the Construction General Permit Post-Construction Standards, the substation also would be designed to balance runoff flows with pre-project conditions.

Stormwater from the Estrella Substation would not include substantial additional sources of pollutants, as the substation would include a concrete weir and skimmer structure (a flow measurement device) to settle sediments. This device settles and collects sediment that is washed down by stormwater before it is discharged from the substation. Additionally, the substation would include a transformer oil secondary containment structure (a concrete basin-like structure with raised walls surrounding the transformer that would be capable of containing the volume of oil in the transformer plus the precipitation volume from a 25-year, 24-hour storm event), which would prevent any spilled transformer oil from being discharged off-site. As described in Impact HYD/WQ-1 above, the Applicants also would implement APM HAZ-1 requiring hazardous materials spill emergency response training for workers, as well as an HMBP outlining hazardous materials storage, management, and disposal protocols during operation. These components/measures would reduce potential for accidental releases of hazardous materials on the substation site and subsequent potential discharge of contaminated runoff.

In general, there are relatively few existing stormwater facilities along the 70 kV power line route and reconductoring segment. Where the power line does pass through areas that may have storm drains adjacent to new pole locations, implementation of BMPs in the SWPPP and APM HAZ-1 would minimize adverse effects on existing facilities from construction activities (e.g., BMPs would prevent discharge of polluted runoff from pole installation sites). The final power line structures would include minimal areas of new impervious surfaces and would not

substantially increase stormwater discharges at pole locations. As such, this impact would be **less than significant.**

iv. Impede or redirect flood flows – *Less than Significant*

As shown in Figure 4.10-3, the proposed Estrella Substation is not located within a 100-year flood hazard zone; therefore, the site would not be expected to experience significant flooding and the proposed above-ground structures associated with the substation would not impede or redirect flood flows. The proposed 70 kV power line alignment would cross Huer Huero Creek, including the area designated by FEMA as a special flood hazard zone. However, given their limited diameter and surface area, power line poles, even if inundated, would not substantially impede or redirect flood flows. As a result, this impact would be **less than significant.**

Impact HYD/WQ-4: Risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones – *Less than Significant*

As noted under Impact HYD/WQ-3, subsection iv above, the proposed Estrella Substation would not be located in an area subject to flooding, as identified on FEMA's flood hazard zone mapping. The substation site is also not within an area potentially subject to tsunami or seiche hazards. The substation would include a transformer oil secondary containment structure that would be sized to capture the volume of the transformer oil plus the precipitation from a 25-year storm. Additionally, the Applicants would manage hazardous materials and other pollutants (e.g., sediment) through implementation of a SWPPP, APM HAZ-1, and the HMBP, such that even if the substation were to experience minor flooding, it would be unlikely to release significant amounts of pollutants. The new and reconductored 70 kV power line alignments cross over or come close to mapped areas of flood hazard in several places; however, even if inundated, the power line poles would not include any pollutant materials that could be released during a flood event.

During construction, none of the staging areas would be located within a flood hazard zone or tsunami or seiche zone. Some temporary work areas may occur within mapped 100-year flood hazard zones (e.g., pole work areas). If such a flood event occurred during the construction period at one of these sites, it could result in a release of pollutants (e.g., hazardous materials storage areas on the construction site could be inundated, thereby resulting in failure of the containment systems); however, given the low probability of a 100-year event occurring in any given year and the temporary nature of the construction activities, this is a very unlikely occurrence and is therefore considered less than significant. Overall, this impact would be **less than significant.**

Impact HYD/WQ-5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan – *Less than Significant*

As described under Impact HYD/WQ-1 above, the Proposed Project would implement a SWPPP and APMs HYDRO-1 and HAZ-1, which would minimize potential discharges of pollutants to surface water or groundwater during construction. These measures would prevent substantial impacts to beneficial uses in surface waters near the Proposed Project and would ensure that construction of the Proposed Project would not conflict with or obstruct implementation of the Basin Plan. Construction of the Proposed Project also would not be expected to conflict with the GSPs for the Paso Robles Subbasin (currently in preparation), as the amount of water needed for

construction, even if sourced entirely from groundwater, would not exceed (or contribute to an exceedance of) the perennial yield for the subbasin.

Over the longer term, the Proposed Project could increase the volume and velocity of runoff from the proposed substation site from the addition of 2 acres of new impervious surface for the Estrella Substation. This additional source of stormwater from a new industrial facility could increase the potential for discharge of polluted runoff, which could potentially violate water quality objectives or impair beneficial uses. However, as described in the preceding impact discussions, the Estrella Substation would include stormwater management features (e.g., sediment detention pond) and the Applicants would implement hazardous materials management measures (APM HAZ-1, HMBP), which would minimize potential for adverse effects. The new impervious surface from the Estrella Substation also would not substantially interfere with groundwater recharge in the area such as to conflict with a sustainable groundwater management plan. As a result, this impact would be **less than significant**.

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

The reasonably foreseeable new distribution lines, reconductoring of existing distribution lines, and installation of three new 21/12 kV pad-mounted transformers would have relatively minimal potential to substantially adversely affect hydrology and water quality compared to the Proposed Project components. Similarly, facilities for ultimate substation buildout, including the 230/70 kV transformer and secondary containment structure, 230 kV interconnection, and/or additional 70/21 kV transformers would have relatively minimal potential to substantially adversely affect hydrology and water quality compared to the Proposed Project components. Note that the routes for any additional distribution feeders and/or 70 kV power lines that could be established through ultimate substation buildout are not known, and thus the impacts associated with these facilities are speculative and are not evaluated in this DEIR. In general, construction activities associated with the reasonably foreseeable distribution and ultimate substation buildout components would be minor in scale compared to the Proposed Project. As shown in Figure 4.10-1, the northern new distribution line segment would cross Dry Creek, as well as an unnamed drainage, although the new distribution line would be installed within the median of SR 46 and would not directly impact these waters. As shown in Figure 2-18, the equipment and facilities associated with ultimate substation buildout would primarily be placed within the fence line of the already-constructed Estrella Substation. Ground disturbance would be limited to that required for equipment foundations and substation wiring.

The Applicants would implement APM HYDRO-1 for the reasonably foreseeable distribution and ultimate substation buildout components, which would limit potential for construction work areas to be sited on or near any sensitive water features or for access routes to be used that could impact water features. The Applicants also would implement APM HAZ-1, which would provide hazardous materials spill response training to construction workers, thereby reducing potential for a substantial, uncontrolled release of hazardous materials into waters during construction. Given that the reasonably foreseeable distribution components would not disturb a total of one acre of land, their construction would not be subject to the Construction General Permit and preparation of a SWPPP. Therefore, **Mitigation Measure HYD/WQ-1** would require implementation of construction BMPs for erosion control in instances where construction activities are not covered under the Construction General Permit. With implementation of APMs

and Mitigation Measure HYD/WQ-1, impacts under significance criteria A and C (subsection i) would be **less than significant with mitigation.**

The reasonably foreseeable distribution components and ultimate substation buildout facilities would have minimal impervious surface areas/footprints and therefore would not substantially interfere with groundwater recharge; result in the addition of substantial volumes of polluted stormwater, or otherwise substantially impede sustainable groundwater management or affect surface or groundwater quality. Once constructed, neither the reasonably foreseeable distribution components nor the ultimate substation buildout components would consume water. Although construction water demands have not been estimated, they would not be particularly substantial (certainly far less than what is required to construct the Proposed Project) and would not substantially affect groundwater supplies even if entirely sourced from groundwater. Therefore, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

While the northern new distribution line segment would cross the mapped flood hazard zone for Dry Creek, this distribution line segment would be installed within the SR 46 median, which passes over Dry Creek via a culvert/bridge. Therefore, there would be minimal risk for the distribution work areas to be inundated during construction activities, such as to result in a release of pollutants. Additionally, once constructed, the new distribution line poles would have minimal surface area and would not substantially impede or redirect flood flows. Because ultimate substation buildout components would be primarily constructed within the already-built Estrella Substation site, they would not be within a mapped flood zone, and would not affect movement of flood flows. None of the other reasonably foreseeable new distribution line segments or pad-mounted transformers would be located in a flood hazard zone. Therefore, impacts under significance criteria C (subsection iv) and D would be **less than significant.**

Mitigation Measure HYD/WQ-1: Implement Construction Best Management Practices for Erosion Control.

For ground-disturbing construction activities that do not require coverage under the Construction General Permit (e.g., total ground disturbance associated with that action does not exceed 1 acre), HWT, PG&E, and/or their contractors shall implement the following measures during construction of the alternative components, or shall implement alternative measures that are equally or more effective:

- Implement practices to reduce erosion of exposed soil and stockpiles, including watering for dust control, establishing perimeter silt fences, and/or placing fiber rolls.
- Minimize soil disturbance areas.
- Implement practices to maintain water quality, including silt fences, stabilized construction entrances, and storm-drain inlet protection.
- Where feasible, limit construction to dry periods.
- Revegetate disturbed areas.

Alternatives

No Project Alternative

Under the No Project Alternative, no impacts to hydrology and water quality would occur. No new substation or new and reconductored 70 kV power line would be constructed; therefore, there would be no potential for violation of water quality standards, discharges of polluted runoff, conflicts with sustainable groundwater management, or any other impacts to surface water or groundwater. As such, **no impact** would occur under any of the significance criteria.

Alternative SS-1: Bonel Ranch Substation Site

Alternative SS-1 would have similar potential for impacts to hydrology and water quality as the proposed Estrella Substation. Like the Proposed Project, this alternative would comply with the Construction General Permit and implement a SWPPP, along with APMs HAZ-1 and HYDRO-1, which would reduce potential impacts. The Bonel Ranch Substation Site would be located close (approximately 200 feet) to the Estrella River, so there would be increased potential for impacts to this water body; however, implementation of the SWPPP and APMs HAZ-1 and HYDRO-1 (see Impact HYD/WQ-1 for detailed discussion of these measures) would ensure that substantial quantities of pollutants (e.g., sediment, hazardous materials) are not discharged from the construction site to the adjacent Estrella River such as to potentially violate water quality standards. As such, impacts under significance criteria A and C (subsection i) would be **less than significant.**

The substation located at the Bonel Ranch site would include roughly the same features and same amount of impervious surface as the Estrella Substation (2 acres), and would have similar potential for discharge of polluted runoff during construction and operation. Construction of the substation at the Alternative SS-1 site also would use the same water sources and require the same amount of water as the proposed Estrella Substation. As discussed in Impact HYD/WQ-2 and HYD/WQ-3, the addition of the substation site with 2 acres of impervious surface would reduce groundwater recharge on the immediate site relative to baseline conditions; however, once water is discharged from the site it would still have an opportunity to percolate into the soil. Additionally, the inclusion of stormwater management features (same as the Proposed Project) would minimize potential for discharge of pollutants from the substation site via runoff. As the Alternative SS-1 site is located in a rural area of San Luis Obispo County, the substation would not discharge stormwater to a municipal system and thus would have no potential to exceed the capacity of such a system or contribute additional sources of polluted runoff to a planned or existing municipal stormwater system. As a result, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

The Alternative SS-1 site is not located within a flood hazard zone, nor is it within a tsunami or seiche zone. As such, there would be no potential for the alternative to substantially impede or redirect flood flows or risk release of pollutants due to project inundation during construction or operation. Therefore, **no impact** would occur under significance criteria C (subsection iv) and D.

Alternative PLR-1A: Estrella Route to Estrella Substation

Due to its longer length (6.5 miles longer) and longer duration of construction (16 months longer), Alternative PLR-1A would have greater potential for construction-related impacts to hydrology and water quality (e.g., erosion and sedimentation, discharge of polluted runoff)

compared to the Proposed Project. Like the Proposed Project, however, this alternative would implement a SWPPP in compliance with the Construction General Permit as well as APMs HAZ-1 and HYDRO-1. For the reasons described in Impact HYD/WQ-1, implementation of these measures would reduce potential for the alternative to violate water quality standards, otherwise substantially degrade surface or groundwater quality, or result in substantial erosion or siltation on- or off-site. Therefore, impacts under significance criteria A and C (subsection i) would be **less than significant.**

Similar to the Proposed Project's 70 kV power line, the new poles associated with Alternative PLR-1A would result in minimal new impervious surface area. Therefore, these new power line structures would not substantially affect existing runoff patterns or interfere substantially with groundwater recharge. Construction of Alternative PLR-1A would use the same water sources, but require a greater amount of water (2.8 million gallons) compared to the Proposed Project's 70 kV power line (2 million gallons). As discussed under Impact HYD/WQ-2, this water use, even if sourced entirely from groundwater, would not substantially affect groundwater supplies sustainability. Alternative PLR-1A would use minimal water during operation. Therefore, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

As shown in Figure 4.10-3, the Alternative PLR-1A alignment would cross the mapped flood hazard zones for Huer Huero Creek and Dry Creek and poles could be placed within the 100-year flood zone. Due to their relatively small diameter and surface area, these new power poles would not substantially impede or redirect flood flows. While a 100-year flood event could occur during the construction period for Alternative PLR-1A, potentially resulting in a release of pollutants that might be used in pole temporary work areas within the flood zone; due to the temporary nature of the Alternative PLR-1A construction activities and low probability of such a flood event in any given year, this risk would be less than significant. As a result, impacts under significance criteria C (subsection iv) and D would be **less than significant**.

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C would be similar in length to Alternative PLR-1A and would require a similarly extended construction duration compared to the Proposed Project. As such, this alternative would have similar potential for increased construction-related hydrology and water quality impacts compared to the Proposed Project as Alternative PLR-1A (see above) (note: if selected, Alternative PLR-1C, Minor Route Variation 1 would be constructed along the Estrella River, which could further increase potential for off-site movement of pollutants to waterbodies). However, Alternative PLR-1C would implement a SWPPP in compliance with the Construction General Permit and APMs HAZ-1 and HYDRO-1, which would minimize potential for substantial off-site discharge of pollutants (e.g., sediment, hazardous materials) to water bodies. As such, impacts under significance criteria A and C (subsection i) would be **less than significant.**

The new poles associated with Alternative PLR-1C would result in minimal new impervious surface area. Therefore, these new power line structures would not substantially affect existing runoff patterns or interfere substantially with groundwater recharge. Construction of Alternative PLR-1C would use the same water sources, but require a greater amount of water (2.7 million gallons) compared to the Proposed Project's 70 kV power line. As discussed under Impact HYD/WQ-2, this water use, even if sourced entirely from groundwater, would not substantially affect groundwater sustainability. Like the Proposed Project, Alternative PLR-1A

would use minimal water during operation. Therefore, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

Alternative PLR-1C would cross mapped flood hazard zones in several places; in particular, much of the length of Alternative PLR-1C, Minor Route Variation 1 is within the 100-year flood zone for Estrella River. As discussed above, due to their relatively small diameter and surface area, the new power line poles for Alternative PLR-1C would not substantially impede or redirect flood flows if a 100-year event were to occur in the areas where the poles would be located. While it is possible that a 100-year flood event could occur during construction of the portion of Alternative PLR-1C within the mapped flood zone, which could potentially result in a release of pollutants (e.g., fuel or oil used at temporary work areas), this occurrence is very unlikely. Therefore, impacts under significance criteria C (subsection iv) and D would be **less than significant.**

Alternative PLR-3: Strategic Undergrounding (Both Options)

Construction of Alternative PLR-3 (both options) would have potential to adversely affect hydrology and water quality without adequately protective measures. Trenching along the length of the undergrounding alignments would loosen soils and involve use of hazardous materials (e.g., fuel and oil in construction equipment), which would create potential for off-site movement of pollutants to waterbodies or discharges into soil and groundwater. Like the Proposed Project, however, implementation of the SWPPP and APM HAZ-1 would prevent the vast majority of potential water quality impacts during construction, including minimizing erosion, sedimentation, and potential for accidental release of hazardous materials (see Impact HYD/WQ-1 for detailed discussion). Implementation of APM HYDRO-1 also would minimize potential for Alternative PLR-3 components to permanently impact any of the drainage features identified along Golden Hill Road, although construction of Alternative PLR-3 could result in temporary impacts to these features. As such, impacts under significance criteria A and C (subsection i) would be **less than significant.**

Once installed, the majority of the length of the new underground power line would not create any new impervious surface area. The transition stations at either end of the underground power line alignment would create a small amount of new impervious surface area (150-foot by 150-foot area for each transition station). Given the limited size of the new impervious surface areas, these new facilities would not substantially interfere with groundwater recharge or substantially increase surface water runoff. Construction of Alternative PLR-3 would use the same water sources, but require a greater amount of water (1,702,600 gallons) compared to the same section of the Proposed Project (2,000,000 gallons for the entire 70 kV power line). Nevertheless, this water use, even if sourced entirely from groundwater, would not substantially affect groundwater sustainability (see Impact HYD/WQ-2 for detailed discussion). Like the Proposed Project, Alternative PLR-3 would use minimal water during operation. Therefore, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

The Alternative PLR-3 alignments (Option 1 & 2) would not cross any mapped flood hazard zones. As a result, the new aboveground features (transition stations) associated with Alternative PLR-3 would not impede or redirect flood. Likewise, the Alternative PLR-3 construction work areas would not reasonably be subject to flooding such as to potentially

result in a release of pollutants. Therefore, **no impact** would occur under significance criteria C (subsection iv) and D**.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

The proposed new 230/70 kV substation that would be constructed adjacent to the existing Templeton Substation site under Alternative SE-1A would have similar potential hydrology and water quality impacts as the proposed Estrella Substation. Like the Proposed Project, Alternative SE-1A would require implementation of a SWPPP in compliance with the Construction General Permit and APMs HAZ-1 and HYDRO-1, which would minimize potential adverse effects such as erosion, releases of hazardous materials, generation of polluted runoff, and direct impacts on sensitive aquatic features (see Impact HYD/WQ-1 for detailed discussion). The Alternative SE-1A site is not located in immediate proximity to any named waterbodies, although there is an unnamed drainage to the south of the site that ultimately drains to the Salinas River. With implementation of the measures noted above, construction and operation of Alternative SE-1A would not cause substantial erosion and would not violate water quality objectives or otherwise substantially degrade surface water or groundwater quality. Therefore, impacts under significance criteria A and C (subsection i) would be **less than significant.**

The substation under Alternative SE-1A would include similar facilities and the same amount of new impervious surface area as the Estrella Substation (2 acres). Construction of the substation at the Alternative SE-1A site also would use the same water sources and require the same amount of water as the proposed Estrella Substation. As discussed in Impact HYD/WQ-2 and HYD/WQ-3, the addition of the substation site with 2 acres of impervious surface would reduce groundwater recharge on the immediate site relative to baseline conditions; however, once water is discharged from the site it would still have an opportunity to percolate into the soil and groundwater. Additionally, the inclusion of stormwater management features (same as the Proposed Project) would minimize potential for discharge of pollutants from the substation site via runoff. As the Alternative SE-1A site is located in a rural area of San Luis Obispo County, the substation would not discharge stormwater to a municipal system and thus would have no potential to exceed the capacity of such a system or contribute additional sources of polluted runoff to a planned or existing municipal stormwater system. As a result, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

The Alternative SE-1A site is not located within a flood hazard zone, nor is it within a tsunami or seiche zone. As such, there would be no potential for the alternative to substantially impede or redirect flood flows or risk release of pollutants due to project inundation during construction or operation. Therefore, **no impact** would occur under significance criteria C (subsection iv) and D.

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Alternative SE-PLR-2 would involve similar construction processes as the Proposed Project new 70 kV power line, although the new power line for this alternative would be shorter (5.2 miles) and the 3-mile-long reconductoring segment would not be needed; as a result, the construction schedule for Alternative SE-PLR-2 would be 9 months shorter than the Proposed Project. This reduced construction activity could result in less overall construction-related impacts to hydrology and water quality; however, the alternative route passes through hilly and undeveloped areas, which would increase potential for erosion and water quality impacts due to

the need to construct poles on slopes in some locations. Like the Proposed Project, this alternative would comply with the Construction General Permit, which will require preparation and implementation of a SWPPP, and the Applicants would also implement APMs HAZ-1 and HYDRO-1. As described in Impact HYD/WQ-1, these measures would reduce potential for the alternative to violate water quality standards, otherwise substantially degrade surface or groundwater quality, or result in substantial erosion or siltation on- or off-site to a level that is less than significant. Therefore, impacts under significance criteria A and C (subsection i) would be **less than significant.**

The new poles associated with Alternative SE-PLR-2 would result in minimal new impervious surface area. Therefore, these new power line structures would not substantially affect existing runoff patterns or interfere substantially with groundwater recharge. The construction water demand for Alternative SE-PLR-2 (715,000 gallons), even if sourced entirely from groundwater, would not substantially affect groundwater sustainability (see discussion under Impact HYD/WQ-2). Alternative SE-PLR-2 would use minimal water during operation. Therefore, impacts under significance criteria B, C (subsections ii and iii), and E would be **less than significant.**

As shown in Figure 4.10-3, small portions of the Alternative SE-PLR-2 alignment would be within the mapped 100-year flood zone. However, even if inundated, due to their relatively thin profile and mass, the power line poles would not significantly affect the movement of flood flows. Additionally, the power poles would not contain hazardous materials that could be released during an inundation event such as to affect water quality. While a 100-year flood event could occur during the construction period for Alternative SE-PLR-2, potentially resulting in a release of pollutants that might be used in pole temporary work areas within the flood zone; due to the temporary nature of the Alternative SE-PLR-2 construction activities and low probability of such a flood event in any given year, this risk would be less than significant. As a result, impacts under significance criteria C (subsection iv) and D would be **less than significant**.

Alternative BS-2: Battery Storage to Address the Distribution Objective

Installation of FTM storage facilities at the illustrative sites identified in Chapter 3, *Alternatives Description,* would have potential for adverse effects to hydrology and water quality . Grading and earth-moving activities could loosen soils and allow for off-site movement of sediments, while improper use of hazardous materials during construction could result in leaks and accidental discharges to soil and waterbodies. Further, because FTM facilities under Alternative BS-2 may not individually or collectively exceed 1 acre (the size of the facilities would ultimately depend on future load growth), their construction may not require coverage under the Construction General Permit or preparation and implementation of a SWPPP. It is assumed, however, that all applicable federal, state, and local laws would be followed during BESS construction.

None of the illustrative FTM storage sites include mapped water features or occur in close proximity to waters that could be impacted during construction or operation. Additionally, development of individual FTM storage facilities at the potential FTM sites would add impervious area in the respective site locations (based on the ultimate size of individual facilities to be determined in the future). The precise amount of new impervious surface area associated with the FTM BESSs under Alternative BS-2 is not known at this time. Example FTM Sites 1-4 are located in developed areas within the City of Paso Robles and runoff from these sites would

likely be discharged to the municipal stormwater collection system. By contrast, example FTM Sites 5-8 are located in relatively rural areas and stormwater discharges would not be collected by the municipal system whose capacity could be exceeded. While the construction water use for FTM BESSs under Alternative BS-2 is not precisely known, it is unlikely that construction of these facilities would require more water than the Proposed Project (10.3 million gallons). As discussed in Impact HYD/WQ-2, even if sourced entirely from groundwater, this amount of water use would not substantially affect groundwater supplies in the area or groundwater sustainability.

Several of the potential FTM sites (1, 3, and 4) are within the 0.2 percent annual chance flood hazard area, but none of the FTM sites are within the 1 percent annual chance (100-year) flood zone (see Figure 4.10-3). While BESSs could potentially be damaged by floodwaters, they would not include uncontained pollutants that would be released during a flood event. As described in previous impact discussions, while a 500-year flood event could occur during the construction period for BESSs at FTM Site 1, 3, and 4, potentially resulting the release of pollutants that be used or stored on these sites; the probability for such an event to occur in any given year would be very low due to the temporary nature of the construction activities. The mapped 500-year flood hazard zone covers much of Paso Robles and thus such an event would affect much of the city.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third-Party, Behind-the-Meter Battery Solar and Battery Storage

The specific locations of development sites under Alternative BS-3 are unknown. As described in Chapter 3, *Alternatives Description,* individual BTM solar and storage facilities would likely be installed on or within existing buildings. In these situations, installation of BTM facilities would have little to no potential to impact hydrology and water quality. In situations where a commercial, industrial, or residential property owner were to install new BTM solar and/or BESS facilities on previously undeveloped portions of their property, this could increase potential for erosion and discharge of pollutants. Since individual BTM facilities are unlikely to exceed 1 acre in size, they would not be subject to the Construction General Permit. Furthermore, any third-party DER provider selected via the DIDF would be required to follow all local design, siting, and permitting requirements.

Development of most individual BTM solar and storage facilities would not add any impervious area above baseline conditions. Solar systems installed on the roofs of commercial, industrial, and residential buildings would not change ground surface runoff patterns, while BESSs installed within buildings would not affect runoff patterns or groundwater recharge. Even BTM solar systems and BESSs that could potentially be installed on undeveloped portions of existing properties would not be expected to substantially affect groundwater recharge or stormwater runoff due to their relatively small individual size (assumed to be no larger than 0.25 acre for this analysis). These facilities would also be integrated within the existing developed landscape for the most part, and thus would not substantially change groundwater recharge or surface water runoff conditions.

It is possible that some individual BTM solar systems or BESSs could be installed in areas within the mapped 100-year flood hazard zone; however, given that these facilities would primarily be installed on or within existing buildings, they would not substantially change existing conditions with respect to impeding or redirecting flood flows. BTM facilities also generally would not include uncontained pollutants/hazardous materials that could be released during a flood event.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

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4.11 Land Use and Planning

4.11.1 Introduction

This section describes the setting and potential impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives related to land use and planning. Under CEQA, land use and planning generally refers to existing land uses and land use plans, and significance criteria relate to the potential for a project to physically divide an existing community or conflict substantially with an existing land use plan or regulation.

4.11.2 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal plans or policies related to land use or planning apply to the Proposed Project, reasonably foreseeable distribution components, or alternatives.

State Laws, Regulations, and Policies

California Public Utilities Commission General Order 131-D

The CPUC has exclusive jurisdiction over the siting and design of power line projects and substations; therefore, the Proposed Project and alternatives are exempt from local land use and zoning regulations. However, CPUC G.O. 131-D states that in locating a project, the public utilities shall consult with the local agencies regarding land use matters. Local laws, regulations, plans, and policies are described in detail in Appendix A of this DEIR.

4.11.3 Environmental Setting

Regional Setting

The Proposed Project and reasonably foreseeable distribution components would be located within the City of Paso Robles and unincorporated areas of northern San Luis Obispo County (within the El Pomar-Estrella and Salinas River sub-areas of the North County planning area). Portions of the Proposed Project and reasonably foreseeable distribution components also fall within the Paso Robles Municipal Airport Review Area. The majority of the alternatives under consideration would occur in the same general area, although several alternatives would be located within or near the communities of Templeton (Alternative SE-1A, SE-PLR-2, and BS-2 [example FTM Site 6]) and San Miguel (example FTM Site 8) and the City of Atascadero (example FTM Site 7). The predominant land uses within the vicinity of Proposed Project, reasonably foreseeable distribution components, and alternatives sites include agriculture, open space, rural residential, residential, commercial, and industrial.

Existing Land Uses

Proposed Project

The proposed Estrella Substation site is located on the northwest side of Union Road, approximately 1.5 miles south of SR 46, in unincorporated San Luis Obispo County. The substation would be constructed on an approximately 15-acre site, carved out of a 98-acre parcel of land designated as agriculture and currently being used as a vineyard (one of five contiguous parcels operated by Steinbeck Vineyards & Winery). The proposed substation site is surrounded on all sides by agricultural uses (vineyards, dry farming, and grazing). PG&E's existing 230-kV double-circuit transmission line and 500-kV transmission line traverse the agricultural area north of the proposed substation site on two sets of lattice steel towers. One residence is located in the southwestern portion of the 98-acre parcel, and another residence is located approximately 1,000 feet to the east. Dry Creek is located approximately 1,500 feet to the north of the site.

The proposed new 70 kV power line segment would extend from the proposed Estrella Substation site in a generally northwesterly direction for approximately 7 miles until it reaches the existing San Miguel-Paso Robles 70 kV power line, located on the east side of US 101 and the Salinas River. The majority of the new 70 kV power line would be constructed on agricultural land consisting of vineyards, orchards, grazing areas, and other agricultural lands, with some portions of the line extending through lands with existing residential rural and suburban, commercial, and industrial uses. The general nature of the existing land uses along the proposed 70 kV power line is shown in the aerial photography included in Figure 2-7 in Chapter 2, *Project Description.*

From the proposed Estrella Substation site, the proposed 70 kV power line would cross through vineyards on the north side of Union Road for approximately 1.5 miles before traversing through rural residential and agricultural lands, crossing Huer Huero Creek, and then following Union Road for roughly 1.1 miles until the junction with Paso Robles Boulevard/SR 46. In following this portion of Union Road, the proposed 70 kV power line would pass by undeveloped/open space lands, rural residential lands, and Barney Schwartz Park and the Paso Robles Sports Club. South of Union Road in this area is the northern edge of land designated as residential suburban as part of the North Chandler Ranch Specific Plan. After crossing over SR 46, the proposed 70 kV power line continues north/northwest for approximately 1.5 miles through agricultural, industrial, commercial, public open space, and residential land uses. The area north of SR 46 in this area is known as the Golden Hill Industrial Park and includes several wine processing facilities and other industrial and commercial uses. Adjacent to Golden Hill Road and the proposed 70 kV power line alignment north of San Antonio Winery is Cava Robles RV Resort and single-family homes making up the Circle B Springs HOA.

Where Golden Hill Road terminates and turns into Lake Place, the proposed power line would continue north through open space and agriculture lands before turning 90 degrees to the west. From this point, the power line alignment would continue roughly 2 miles through largely agricultural lands before meeting the existing San Miguel-Paso Robles 70 kV power line. The River Oaks Hot Springs Spa is located near the junction of the proposed new 70 kV power line segment and the existing San Miguel-Paso Robles 70 kV power line. From the junction point to the south, the existing power line would be reconductored for approximately 3 miles to the

point where the existing power line meets the Paso Robles Substation. The existing San Miguel-Paso Robles 70 kV power line generally follows North River Road, which is adjacent to the Salinas River, but also cuts through several residential areas of Paso Robles. At the point where the existing power line meets Paso Robles Substation, residential development gives way to commercial uses, including several large stores and shopping centers on either side of Niblick Road.

Reasonably Foreseeable Distribution Components

The reasonably foreseeable distribution line segments would be installed primarily in agricultural areas and within existing road right-of-way. As shown in Figure 2-10 in Chapter 2, *Project Description,* the southern new distribution line segment would follow an existing dirt road through agricultural fields north from the proposed Estrella Substation to the junction with Mill Road. The northern reasonably foreseeable new distribution line segment would follow SR 46 (within the roadway median) in a northeast direction before turning north and traversing an agricultural field. The three additional 21/12 kV pad-mounted transformers would be installed along roadways in agricultural and undeveloped areas (see Figure 2-10).

Alternatives

The majority of the alternatives under consideration are located in more rural areas of San Luis Obispo County relative to the Proposed Project components. The Bonel Ranch Substation Site (Alternative SS-1) is located on an agricultural parcel along Estrella Road currently being used to grow alfalfa that is surrounded by additional agricultural lands and open space. Similarly, the Templeton Substation Expansion Site (Alternative SE-1A) is located on agricultural land adjacent to the existing Templeton Substation and surrounded by largely agricultural, rural residential, and open space lands.

Of the power line routing alternatives, Alternatives PLR-1A and PLR-1C would both pass through primarily agricultural lands in rural areas north of the City of Paso Robles, although the reconductoring segments of these alternatives would pass through the same residential/urban areas of Paso Robles as the Proposed Project's 70 kV power line route. The Templeton-Paso South River Road Route (Alternative SE-PLR-2) would pass through agricultural lands and rural residential areas that make up the Santa Ysabel HOA. The last 0.6 mile of the Alternative SE-PLR-2 route north of the intersection of South River Road and Charolais Road would pass through denser residential development as well as commercial land uses. Alternative PLR-3 (both options) would underground the portion of the proposed 70 kV power line that passes through the Golden Hill Industrial Park and areas adjacent to Cava Robles RV Resort and Circle B HOA.

With respect to Alternative BS-2, the example FTM Sites 1-4 would be located in the City of Paso Robles near Paso Robles Substation, where surrounding land uses are primarily commercial and residential, as well as public facilities (the example FTM Site 4 is located adjacent to Paso Robles High School). FTM Site 5 is located adjacent to the CAL FIRE Air Attack Base within an undeveloped parcel, but adjacent to a planned solar generation facility. The example FTM Sites 6 and 8 are located adjacent to the Templeton and San Miguel substations, respectively, which are located in relatively rural areas. FTM Site 7 is adjacent to Atascadero Substation within the City of Atascadero where surrounding land uses are primarily residential, although the Cornerstone Community Church is adjacent to the site to the south. As indicated in Chapter 3,

Alternatives Description, the example FTM sites are provided for illustrative purposes in this DEIR.

Land Use Designations, County Combining Designations, Airport Land Use Compatibility, and Zoning

Land use designations for the Proposed Project, reasonably foreseeable distribution components, and alternatives areas generally reflect the existing land uses described above. As shown in Figure 4.11-1, the vast majority of unincorporated county lands within which the Proposed Project, reasonably foreseeable distribution components, or alternatives would be located are designated for agricultural use in the San Luis Obispo County General Plan (with the exception of areas in the Alternative SE-PLR-2 area, which are designated for rural residential use). The land use designations within the City of Paso Robles where the Proposed Project and alternatives would be located include Residential Suburban (RS), Commercial Service (CS), Agriculture (AG), Public Open Space (POS), Business Park (BP), Residential Single Family (RSF), Residential Multiple Family (RMF), Public Facilities (PF), and Regional Commercial (RC).[1]

In addition to land use designations, the County of San Luis Obispo also identifies combining designations, which are special overlay categories applied in areas of the county with hazardous conditions or special resources. County combining designations in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives sites include Airport Review (AR)[2], Flood Hazard (FH), Extractive Resource Area (EX1), and Renewable Energy (RE). As shown in Figure 4.11-2, portions of the proposed new 70 kV power line segment are within the AR combining designation, whereas the proposed Estrella Substation and 70 kV power line reconductoring segment are just outside of the AR boundaries. Much of the lengths of Alternatives PLR-1A and PLR-1C are within the AR combining designation. The FH combining designation is the same as the FEMA flood zones (includes both the 1 percent annual chance and 0.2 percent annual chance flood hazard areas) shown on Figure 4.10-2 in Section 4.10, "Hydrology and Water Quality." Neither the Proposed Project nor the reasonably foreseeable distribution components or any of the alternatives are located within an EX1 combining designation. The proposed Estrella Substation site, portions of the proposed 70 kV power line alignment, and many of the alternatives are located within the RE combining designation (areas

[1] Note that the San Luis Obispo County Land Use Ordinance incorporates the Land Use Element land use categories, combining designations, and the official maps. It contains the procedures for various permit processes for the review and approval of proposed land uses and divisions, including provisions for public review of such decisions and opportunities for appeal. It requires that all new or altered uses be consistent with the Land Use Element, eliminating the need for the traditional system of separate zoning maps (San Luis Obispo County 2015).

[2] The Airport Review designation allows San Luis Obispo County the ability to implement Federal Aviation Administration regulations by allowing only those land uses which would not generate hazards or obstructions to aircraft operations in the vicinity of an airport. Hazards which must be avoided include excessive height of buildings and structures; electrical interference with radio communications; glare from night lighting which could impair the ability of flyers to distinguish airport lights from others; and glare in the eyes of flyers from reflective building surfaces (San Luis Obispo County 2015).

in the county where renewable energy resource developments are favorable and prioritized), as shown on Figure 4.11-2.

Figure 4.11-3 shows the airport safety zones identified in the ALUP for the Paso Robles Municipal Airport. As described in Appendix A (see under "Hazards and Hazardous Materials"), 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. As shown in Figure 4.11-3, portions of the proposed 70 kV power line alignment, reasonably foreseeable distribution components, and the Alternative PLR-1A and PLR-1C alignments would pass through the ALUP area. Figure 4.11-3 also shows County of San Luis Obispo planning areas in relation to the Proposed Project, reasonably foreseeable distribution components, and alternatives. As noted above, the Proposed Project, reasonably foreseeable distribution components, and alternatives are located in the El Pomar-Estrella and Salinas River sub-areas of the North County planning area.

Finally, Figure 4.11-4 shows City of Paso Robles zoning districts in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives sites. Zoning districts generally serve to implement the land use designations identified in the general plan; thus, the zoning districts are generally consistent with the land use designations shown on Figure 4.11-4. As shown on Figure 4.11-4, zoning districts along or adjacent to the Proposed Project, reasonably foreseeable distribution components, and alternatives include Commercial/Light Industry (C3), Residential Agriculture (RA), Planned Industrial (PM), Agriculture (AG), Parks and Open Space (POS), Residential Single Family (R1), Residential Duplex/Triplex (R2), Regional Commercial (RC), Commercial-General Retail (C1), and Airport (AP).

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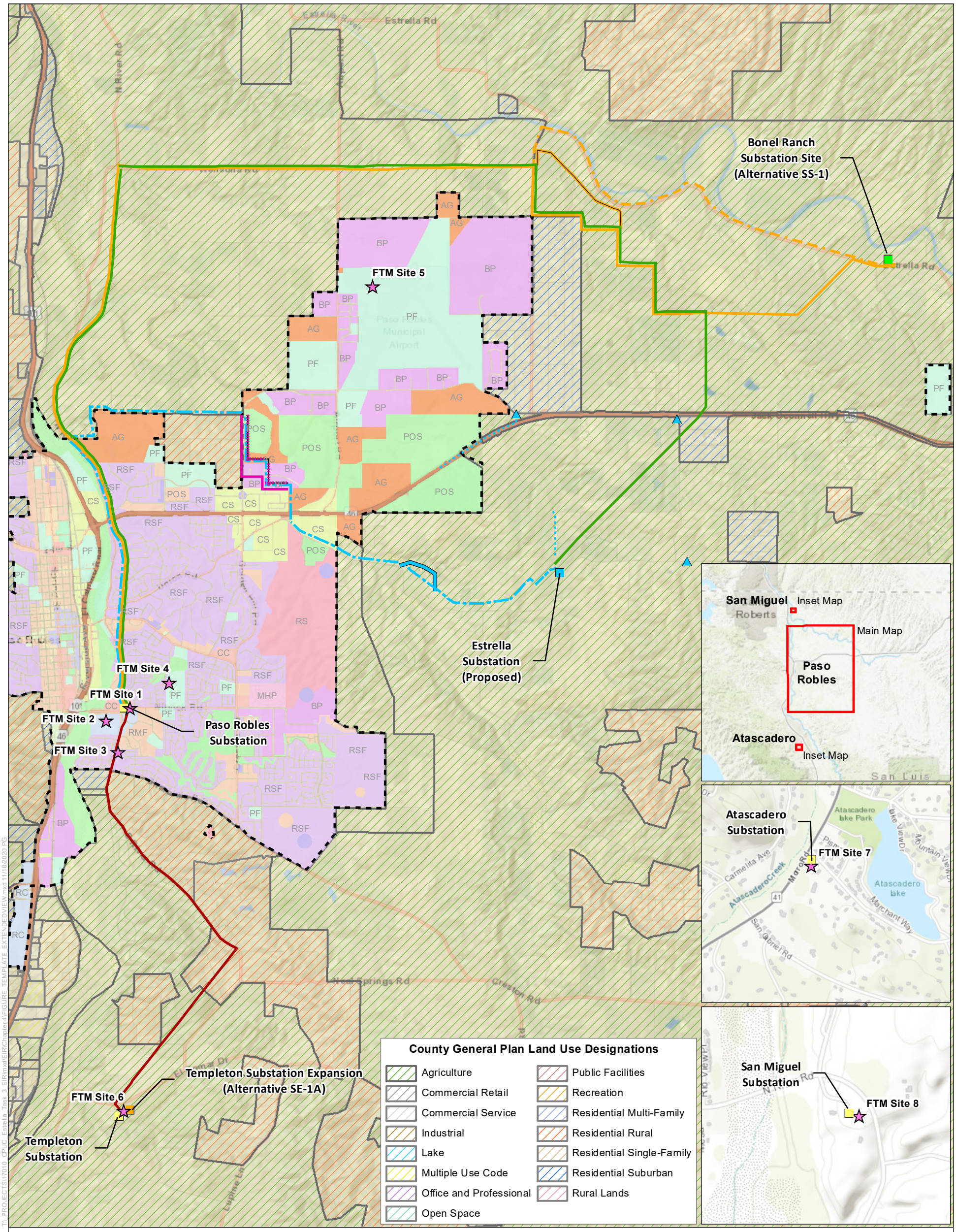

Figure 4.11-1
General Land Use Designations

Source: ESRI 2018, Paso Robles General Plan 2018; PG&E 2019; SLO County 2019

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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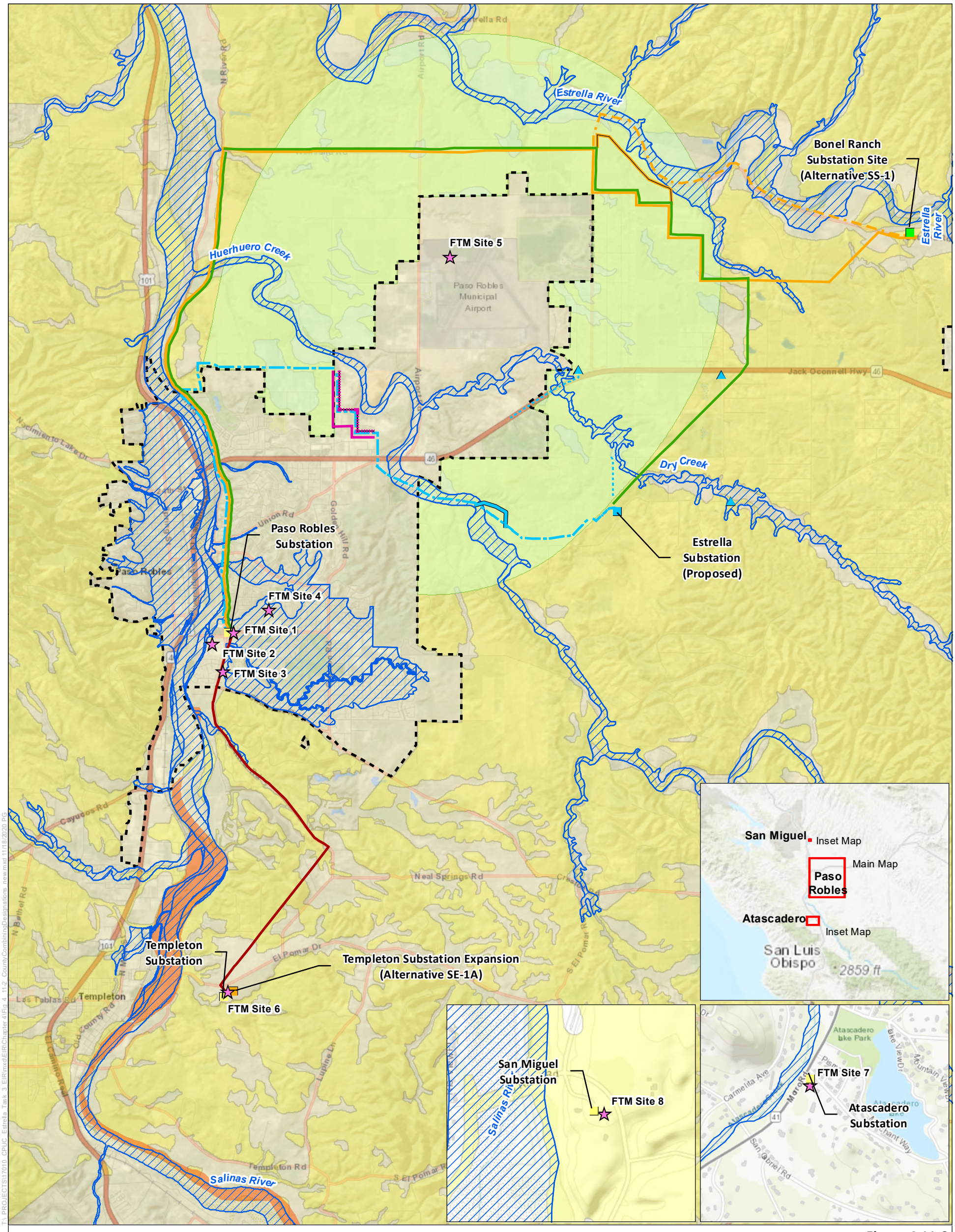

Figure 4.11-2
County Combining Designations

Source: ESRI 2018, Paso Robles General Plan 2018; PG&E 2019; SCWA 2017; SLO County 2019

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Horizon WATER and ENVIRONMENT

Estrella Substation and
Paso Robles Area Reinforcement Project

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Bonel Ranch Substation Site (Alternative SS-1)

FTM Site 5

Paso Robles Municipal Airport

Estrella Substation (Proposed)

Paso Robles Substation

FTM Site 4

FTM Site 2

FTM Site 1

FTM Site 3

Templeton Substation

Templeton Substation Expansion (Alternative SE-1A)

FTM Site 6

San Miguel Substation

FTM Site 8

FTM Site 7

Atascadero Substation

Inset Map

Main Map

San Miguel

Paso Robles

Atascadero

San Luis Obispo

2859 ft

Estrella River

Estrella Rd

N River Rd

101

Jack Oconnell Hwy

46

Nacimiento Lake Dr

24th St

Spring St

El Camino Real

Union Rd

Golden Hill Rd

Paso Robles

Creston Rd

Charolais Rd

Cayucos Rd

N Bethel Rd

Neal Springs Rd

N Main St

El Pomar Dr

S El Pomar Rd

Las Tablas Rd

Templeton

Old County Rd

Lupine Ln

Templeton Rd

S El Pomar R

Atascadero Lake Park

Carmelita Ave

Atascadero Creek

Mora Rd

Mountain View Dr

San Gabriel Rd

41

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Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Airport Safety Zones

- Airport Review Area
- Zone 1
- Zone 2
- Zone 3
- Zone 4
- Zone 5
- Zone 6

Planning Areas

- Planning Sub-area
- Shandon-Carrizo Sub-area
- Salinas River Sub-area

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.11-3
Planning and ALUP Areas

Source: ESRI 2018, Paso Robles General Plan 2018, PG&E 2019, SCWA 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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Bonel Ranch Substation Site (Alternative SS-1)

FTM Site 5

Paso Robles Municipal Airport

Estrella Substation (Proposed)

FTM Site 4

FTM Site 1

FTM Site 2

FTM Site 3

Paso Robles Substation

Templeton Substation

Templeton Substation Expansion (Alternative SE-1A)

FTM Site 6

San Miguel Substation

FTM Site 8

FTM Site 7

Atascadero Substation

San Miguel

Inset Map

Main Map

Paso Robles

Atascadero

Inset Map

City of Paso Robles Zoning Designations

- City Limits
- Agriculture (AG)
- Airport (AP)
- Alley (ROW)
- Civic (C)
- Commercial- General Retail (C1)
- Commercial- Highway (C2)
- Commercial- Neighborhood (CP)
- Commercial/ Light Industry (C3)
- Flex (T-F)
- Industrial (M)
- Neighborhood (T-3N)
- Neighborhood Center (T-4NC)
- Office Professional (OP)
- Open Space (OS)
- Parks & Open Space (POS)
- Planned Industrial (PM)
- Public Facilities (PF)
- Regional Commercial (RC)
- Residential Agriculture (RA)
- Residential Duplex/Triplex (R2)
- Residential Multifamily (R3)
- Residential Multifamily/ Mobilehome (R4-20)
- Residential Multifamily/ Office (R3O)
- Residential Single Family (R1)
- Residential Suburban (RS)
- Riverside Corridor (RSC)
- Town Center (TC-1)
- Unspecified (UNK)

Proposed Project

- Estrella Substation

Existing Infrastructure

- Existing Substations
- 70kV Route

Reasonably Foreseeable Distribution Components

- New Distribution Line Segments
- 70 kV Minor Route Variation 1
- Additional 21/12 kV Pad-Mounted Transformer

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

N

0 1 Miles

Figure 4.11-3
City Zoning Designations

Source: ESRI 2018, Paso Robles General Plan 2018, PG&E 2019, SCWA 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Horizon WATER and ENVIRONMENT

Estrella Substation and Paso Robles Area Reinforcement Project

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4.11.4 Impact Analysis

Methodology

The analysis of land use and planning impacts was qualitative in nature and involved comparing aspects of the Proposed Project, reasonably foreseeable distribution components, and alternatives to the significance criteria described below.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in a significant impact related to land use and planning if they would:

A. Physically divide an established community; or

B. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Environmental Impacts

Proposed Project

Impact LU-1: Physically divide an established community – *Less than Significant*

As discussed in Section 4.11.3, the proposed substation would be located in a rural, agricultural area of San Luis Obispo County. The proposed substation site is currently being used as a vineyard, and surrounding land uses include agricultural lands and vineyards. While development of the proposed Estrella Substation would convert roughly 15 acres of the existing vineyard to utility/industrial use, it would not physically divide an established community. There are existing 500/230 kV transmission lines immediately to the north of the proposed substation site (which the substation would connect to via the 230 kV interconnection), so the new substation would not be entirely out of character for the area, and access to the surrounding agricultural areas would not be disrupted. Once the substation is constructed, operation and maintenance activities would be infrequent and would not substantially interfere with farming operations or residential land uses in the surrounding area.

By contrast, the proposed new 70 kV power line segment would extend through agricultural lands as well as the Golden Hill Industrial Park and residential and recreation/open space areas. During construction, the communities and land uses along the 70 kV power line alignment could be disturbed due to the noise and construction activity and could be subject to road congestion and/or temporary access restrictions (see Section 4.17, "Transportation," for detailed discussion). These effects would be most acute for the commercial and industrial uses near Golden Hill Road, staff and patrons at Cava Robles RV Resort, and residents of Circle B HOA. Nevertheless, these construction-related impacts would not be considered a physical division of an established community because the activities would be temporary and construction would be completed in a linear and segmented fashion (e.g., installation of a single transmission structure would occur over a few weeks and then construction crews would move to the next

location along the alignment), and would not result in a significant impact. Additionally, implementation of Mitigation Measure TR-1 (see Section 4.17, "Transportation"), which requires the implementation of a site-specific construction traffic control plan including measures designed to minimize vehicle travel delays and potential roadway hazards and congestion on public roadways during construction, would minimize the impacts (though this mitigation measure is not considered necessary to reduce land use impacts to a less than significant level).

Once constructed, the new 70 kV power line would not constitute a physical barrier separating any existing communities. The individual power line poles would be spaced hundreds of feet apart and the line would not prevent movement by members of the community. The 70 kV power line reconductoring segment exists currently and the replacement of poles/reconductoring activities would not substantially change the nature of the existing power line segment and would not physically divide an existing community. The power line would operate unattended, and inspections and maintenance activities would be infrequent and would have no potential to divide the community. Therefore, this impact would be **less than significant.**

Impact LU-2: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect – *Less than Significant*

As described in Section 4.11.2, the CPUC has exclusive jurisdiction over the siting and design of power line projects and substations; therefore, the Proposed Project is exempt from local land use and zoning regulations. Nevertheless, potential conflicts with land use plans, policies, or regulations are discussed here for informational purposes and in accordance with CPUC G.O. 131-D, which states that in locating a project, the public utilities shall consult with the local agencies regarding land use matters.

The proposed Estrella Substation and 70 kV power line would be located on lands with various land use designations and zoning districts identified by the County of San Luis Obispo and the City of Paso Robles. While many of these land use designations/zoning districts do not explicitly call for public utility uses, the substation and power line would be allowable uses and would not substantially conflict with the county or city land use plans. Specifically, while the proposed Estrella Substation would not further the County of San Luis Obispo Agriculture designation, which, among other things, is intended to recognize and retain commercial agriculture as a desirable land use and as a major segment of the county's economic base, public utility facilities are allowed in the Agriculture designation with a Conditional Use Permit (see Appendix A, County of San Luis Obispo Land Use Ordinance Table 2-2). Similarly, transmission lines are allowable uses in the Agriculture designation subject to a land use permit. As shown in Appendix A, transmission lines and substations are permitted or conditionally permitted uses in all zoning districts in the City of Paso Robles within which the Proposed Project components would occur.

The potential for Proposed Project facilities to expose people or structures to hazards from being located within a flood hazard zone (e.g., FH combining designation) is discussed in Section 4.10, "Hydrology and Water Quality." While the proposed 70 kV power line would cross Huer Huero Creek and several poles would be located within the flood hazard zone, the pole structures would not reasonably obstruct flood flows and would not subject persons to hazards from being located in the flood zone. Therefore, the intent of the FH combining designation "to

reduce risks to life and property through proper location and design of structures within areas subject to man-made or natural hazards, such as: airports; flooding; or geologic hazards, including active faulting, landsliding, or liquefaction" would be satisfied.

Additionally, the potential for the Proposed Project to convert agricultural land to non-agricultural uses is described in Section 4.2, "Agriculture and Forestry Resources." This impact is considered significant and unavoidable from the perspective of agriculture and forestry resources (as the Proposed Project would permanently convert roughly 15 acres of Important Farmland to non-agricultural uses), but it is not considered a significant land use impact. This is the case because public utility facilities are conditionally permitted uses in the Agriculture designation and because the CPUC is not subject to local land use regulations in siting transmission facilities.

As shown in Figure 4.11-3, much of the proposed new 70 kV power line segment would be within the airport review area and within the safety zones identified in the ALUP for the Paso Robles Municipal Airport. As described in Appendix A, the ALUP Land Use Compatibility Matrix lists overhead transmission lines as incompatible uses in all of the safety zones. In this regard, the Proposed Project would conflict with the ALUP. However, the San Luis Obispo County Airport Land Use Commission has adopted FAA Regulations Part 77, "Objects Affecting Navigable Airspace," which allows for utility line facilities within prescribed height limits. As discussed in Section 4.9, "Hazards and Hazardous Materials," the proposed 70 kV power line would be within the height limits under FAA regulations. The Applicants filed a Notice of Proposed Construction and Alteration Application for the project and the FAA determined that the new power line segment does not exceed FAA obstruction standards and no marking and/or lighting is required (NEET West and PG&E 2017). In light of this determination, the conflict with the ALUP related to the blanket prohibition on overhead transmission lines in all safety zones is considered less than significant because safety hazard impacts would not be significant.

With respect to the County's RE combining designation, the Proposed Project would not substantially constrain the availability of renewable energy resources in the Proposed Project area. While solar panels or other renewable energy generation systems could not be developed immediately on the Estrella Substation site in the future, such facilities could be built adjacent to the substation or power line alignment and could be easily interconnected to the transmission system. Overall, the Proposed Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, this impact would be **less than significant.**

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

Similar to the Proposed Project components, the reasonably foreseeable distribution components (i.e., new distribution line segments and additional 21/12 kV pad-mounted transformers) would not physically divide an existing community or cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation. The new distribution line segments would complete gaps in the existing distribution line network and would be installed largely within existing road rights-of-way. Construction of the distribution components would involve relatively minor disruptions to the immediate areas and, once constructed, the distribution components would not physically separate any communities or

prevent movement of persons within the community. Similarly, the equipment and facilities associated with ultimate substation buildout would primarily be placed within the fence line of the already-constructed Estrella Substation and thus would not physically divide an existing community. Although the routes of additional distribution feeders and/or 70 kV lines potentially established through ultimate substation buildout are unknown and impacts are thus speculative, these lines would not physically divide an established community for the reasons described in Impact LU-1 (e.g., poles would be spaced hundreds of feet apart and would not substantially limit movement by members of the community). Therefore, impacts under significance criterion A would be **less than significant.**

As shown in Figure 4.11-1, the new distribution line segments (both northern and southern) would be primarily located on county land designated for agricultural use, although a portion of northern distribution line segment would be installed within the City of Paso Robles along SR 46 with Parks and Open Space (POS) land on either side of the highway. Like the proposed 70 kV power line, the new distribution line segments (and pad-mounted transformers) would not substantially conflict with agricultural use in these locations, particularly since they would be installed along existing roads.

As shown in Figure 4.11-2, the new distribution line segments fall within the Paso Robles Municipal Airport Review Area. As shown in Figure 4.11-3, the northern new distribution line segment would be located entirely within the Paso Robles Municipal Airport ALUP safety zones, while a portion of the southern distribution line would also be located within the ALUP area. At a maximum of 50 feet tall and approximately 0.75-mile from the terminus of the nearest runway of the Paso Robles Municipal Airport, the new distribution line poles would not appear to exceed FAA's obstruction standards (as defined in 14 CFR Part 77) such as to pose a substantial hazard to aircraft. The new distribution lines would complete gaps in the existing distribution network and thus would not introduce new structures to the area that are any taller than the existing distribution line poles. With respect to ultimate substation buildout, equipment and facilities would primarily be placed within the fence line of the already-constructed Estrella Substation. Installation of additional transmission and distribution transformers and associated equipment within the 70 kV and 230 kV substations is assumed to not result in any substantial increase in height of the substation. Potential conflicts with land use plans, policies, or regulations from future additional distribution feeders and/or 70 kV power lines that could be established through ultimate substation buildout are speculative as the routes of these facilities are not yet known. As a result, impacts under significance criterion B would be **less than significant.**

Alternatives

No Project Alternative

Under the No Project Alternative, no new substation or new/reconductored power line would be constructed; therefore, there would be no potential for these features to divide an established community or conflict with any existing land use plans, regulations, or policies such as to result in a significant environmental impact. Therefore, **no impact** would occur under either significance criteria A or B**.**

Alternative SS-1: Bonel Ranch Substation Site

The Bonel Ranch Substation Site is located in a rural area of San Luis Obispo County along the Estrella River. The site is on land currently used for agriculture and designated for agricultural use by the county, as shown in Figure 4.11-1. There is no residential or urban community development in the immediate area; as such, there would be no potential for construction and operation of the substation at this site to physically divide an established community. Once constructed, the substation would not preclude any existing access to homes or areas and would operate remotely with no staff on site. Therefore, impacts under significance criterion A would be **less than significant.**

As described under Impact LU-2, public utility facilities are a conditionally permitted use within the Agriculture designation. Therefore, Alternative SS-1 would not conflict with the local land use designation or zoning. Refer to Section 4.2, "Agriculture and Forestry Resources," for discussion of the potential for Alternative SS-1 to convert Important Farmland to non-agricultural use, which is not considered a significant land use impact. As shown in Figure 4.11-3, the Bonel Ranch Substation Site is located outside of the Paso Robles Municipal Airport ALUP area. With respect to the RE combining designation, Alternative SS-1 would not substantially affect the availability of renewable energy resources in this area, as described in Impact LU-2 above for the Proposed Project. As a result, impacts under significance criterion B would be **less than significant.**

Alternative PLR-1A: Estrella Route to Estrella Substation

As described above, Alternative PLR-1A would pass through primarily rural and agricultural lands to the north of the City of Paso Robles. The Alternative PLR-1A route would not pass through any densely developed residential or urban communities (apart from the southern portion of the reconductoring segment, which would be the same as the Proposed Project). As such, construction and operation of the 70 kV power line under Alternative PLR-1A would have no potential to physically divide an established community. Therefore, impacts under significance criterion A would be **less than significant.**

As shown on Figure 4.11-1, the new power line segment under Alternative PLR-1A would pass almost entirely through lands designated for Agriculture (small portions of the alignment would pass through areas designated Residential Suburban). A power line is considered an allowable use in the Agriculture and Residential Suburban designations, per County of San Luis Obispo Land Use Ordinance Table 2-2. Therefore, Alternative PLR-1A would not conflict with local land use regulations. The portion of the Alternative PLR-1A reconductoring segment that occurs within the City of Paso Robles, including lands zoned for Agriculture (AG), Residential Single Family (R1), and Residential Duplex/Triplex (R2), would be the same as the Proposed Project and the reconductoring activities would not change the existing land use or conflict with the zoning. Refer to Section 4.2, "Agriculture and Forestry Resources," for discussion of the potential for Alternative PLR-1A to convert Important Farmland to non-agricultural use, which is not considered a significant land use impact.

As shown in Figure 4.11-3, much of the length of the Alternative PLR-1A new 70 kV power line segment would extend through ALUP safety zones. As described in Impact LU-2 and Appendix A, the ALUP Land Use Compatibility Matrix lists overhead transmission lines as incompatible uses in all of the safety zones. However, like the Proposed Project, the Alternative PLR-1A power line

would be composed of a combination of LDSPs and TSPs with a maximum height of 133 feet, which would be lower than the 200 feet aboveground limit under FAA Regulations Part 77. FAA has not been notified of, or made a determination, regarding Alternative PLR-1A, but given that the alternative would be similar in nature to the Proposed Project 70 kV power line and would be installed at a similar distance from the Paso Robles Municipal Airport, it is anticipated that FAA would find that the alternative does not exceed obstruction standards, resulting in a less than significant impact with respect to ALUP conflicts. Therefore, impacts under significance criterion B would be **less than significant.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Like Alternative PLR-1A, Alternative PLR-1C would pass through primarily rural and agricultural lands to the north of the City of Paso Robles. The Alternative PLR-1C route would not pass through any densely developed residential or urban communities (apart from the southern portion of the reconductoring segment, which would be the same as the Proposed Project). As such, construction and operation of the 70 kV power line under Alternative PLR-1C would have no potential to physically divide an established community. Therefore, impacts under significance criterion A would be **less than significant.**

As shown on Figure 4.11-1, the new power line segment under Alternative PLR-1C would pass almost entirely through lands designated for Agriculture (one small portion of the alignment would border lands designated Residential Suburban). A power line is considered an allowable use in the Agriculture and Residential Suburban designations, per County of San Luis Obispo Land Use Ordinance Table 2-2. Therefore, Alternative PLR-1C would not conflict with local land use regulations. The portion of the Alternative PLR-1C reconductoring segment that occurs within the City of Paso Robles, including lands zoned for Agriculture (AG), Residential Single Family (R1), and Residential Duplex/Triplex (R2), would be the same as the Proposed Project and the reconductoring activities would not change the existing land use or conflict with the zoning. Refer to Section 4.2, "Agriculture and Forestry Resources," for discussion of the potential for Alternative PLR-1C to convert Important Farmland to non-agricultural use, which is not considered a significant land use impact.

As shown in Figure 4.11-3, much of the length of the Alternative PLR-1C new 70 kV power line segment would extend through ALUP safety zones. As described in Impact LU-2 and Appendix A, the ALUP Land Use Compatibility Matrix lists overhead transmission lines as incompatible uses in all of the safety zones. However, like the Proposed Project, Alternative PLR-1C power line would be composed of a combination of LDSPs and TSPs with a maximum height of 133 feet, which would be lower than the 200 feet aboveground limit under FAA Regulations Part 77. FAA has not been notified of, or made a determination, regarding Alternative PLR-1C, but given that the alternative would be similar in nature to the Proposed Project 70 kV power line and would be installed at a similar distance from the Paso Robles Municipal Airport, it is anticipated that FAA would find that the alternative does not exceed obstruction standards, resulting in a less than significant impact with respect to ALUP conflicts. Therefore, impacts under significance criterion B would be **less than significant.**

Alternatives PLR-3: Strategic Undergrounding (Both Options)

Alternative PLR-3 would underground the portion of the Proposed Project 70 kV power line in the area of Golden Hill Road, as described in Chapter 3, *Alternatives Description.* Option 1 would

follow Wisteria Lane, while Option 2 would follow the Proposed Project 70 kV alignment. During construction, Alternative PLR-3 would involve substantial trenching within the roadways along the Alternative PLR-3 alignments, requiring lane closures for numerous weeks during the construction period. As a result, compared to the Proposed Project overhead 70 kV power line, construction of Alternative PLR-3 would have increased potential to disrupt the community and adversely affect access for local residents and business owners. Nevertheless, this impact would be temporary, constructed over a duration of approximately 12 months. Construction would not be considered a physical division of the existing community because once installed, the Alternative PLR-3 components (with the exception of the transition stations) would be located entirely underground and would not affect the existing community. Implementation of Mitigation Measure TR-1, described above, would also minimize construction impacts (though this mitigation measure is not considered necessary to reduce land use impacts to a less than significant level). Therefore, impacts under significance criterion A would be **less than significant.**

As shown in Figure 4.11-1 and Figure 4.11-4, Alternative PLR-3 (both options) passes through areas zoned Planned Industrial (PM), Parks and Open Space (POS), and Agriculture (AG) by the City of Paso Robles, and is adjacent to areas designated Residential Rural by San Luis Obispo County. However, given that the Alternative PLR-3 components would be almost entirely underground, they would not conflict with the existing land use designations or zoning. The transition stations would be conditionally permitted uses within the applicable zoning districts. Alternative PLR-3 would be entirely within the AR combining designation and ALUP safety zones; however, given that the power line would be installed underground, it would not pose a hazard to aircraft and would have no potential to exceed FAA obstruction standards. Therefore, impacts under significance criterion B would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

The Templeton Substation Expansion Site is located in a rural area of San Luis Obispo County adjacent to the existing Templeton Substation off of El-Pomar Road. The site is on land currently used for agriculture and designated for agricultural use by the County, as shown in Figure 4.11-1. There is no residential or urban community development in the immediate area; as such, there would be no potential for construction and operation of the substation at this site to physically divide an established community. Once constructed, the substation would not preclude any existing access to homes or areas and would operate remotely with no staff on site. Therefore, impacts under significance criterion A would be **less than significant.**

As described under Impact LU-2, public utility facilities are a conditionally permitted use within the Agriculture designation. Therefore, Alternative SE-1A would not conflict with the local land use designation. Refer to Section 4.2, “Agriculture and Forestry Resources,” for discussion of the potential for Alternative SE-1A to convert Important Farmland to non-agricultural use, which is not considered a significant land use impact. As shown in Figure 4.11-3, the Templeton Substation Expansion Site is located well outside of the Paso Robles Municipal Airport ALUP area. With respect to the RE combining designation, Alternative SE-1A would not substantially affect the availability of renewable energy resources in this area. As a result, impacts under significance criterion B would be **less than significant.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Alternative SE-PLR-2 would pass through agricultural, rural residential, and densely developed residential and commercial areas near the Paso Robles Substation. In particular, the Alternative SE-PLR-2 route would pass through the Santa Ysabel Ranch HOA along South River Road and the neighborhood of Paso Robles along South River Road north of Charolais Road and south of Niblick Road. As described for the Proposed Project 70 kV power line, construction of Alternative SE-PLR-2 could disturb the community and potentially limit access during the construction period due to operation of construction equipment on public roadways and possible lane closures. These effects, however, would be temporary and would not be considered a physical division of the community because construction activities would be implemented in segments, whereby construction at any one structure location would be for a relatively short duration and a substantive physical division would not be established. Once constructed, the new power line segment under Alternative SE-PLR-2 would not hinder access, movement of people or vehicles, or otherwise physically divide the established communities. Implementation of Mitigation Measure TR-1, described above, would also minimize construction impacts (though this mitigation measure is not considered necessary to reduce land use impacts to a less than significant level). Therefore, impacts under significance criterion A would be **less than significant.**

As shown on Figure 4.11-1 and Figure 4.11-4, the new power line segment under Alternative SE-PLR-2 would pass through lands designated Agriculture and Residential Rural by the County, and lands zoned Residential Single Family (R1) and Regional Commercial (RC) by the City of Paso Robles. A power line is considered an allowable use in the Agriculture and Residential Rural designations, per County of San Luis Obispo Land Use Ordinance Table 2-2, and is a permitted or conditionally permitted use in the RC and R1 zoning districts (see Appendix A). Therefore, Alternative SE-PLR-2 would not conflict with local land use regulations. Refer to Section 4.2, "Agriculture and Forestry Resources," for discussion of the potential for Alternative SE-PLR-2 to convert Important Farmland to non-agricultural use, which is not considered a significant land use impact.

During scoping for the Proposed Project, residents from the Santa Ysabel Ranch HOA submitted comments noting that Alternative SE-PLR-2 would traverse through an area governed by a 2002 agreement between the County and the Santa Ysabel Ranch HOA establishing an open space easement for the land generally comprising the Santa Ysabel Ranch HOA (Tashjian 2019). A primary purpose of the agreement was to retain an existing wildlife movement corridor located within the Santa Ysabel Ranch HOA area and to set aside an unfragmented section of land that would benefit the San Joaquin kit fox along with other associated plant and animal species (Tashjian 2019). The agreement also stated that the Santa Ysabel Ranch HOA area has certain natural beauty and existing openness, and that both the Santa Ysabel Ranch HOA and the County desired to preserve and conserve for the public benefit the great natural scenic beauty and existing openness, natural condition and present state of use of the subject property (Tashjian 2019). Importantly, however, the agreement states (section 5):

> *"…nothing contained in this agreement shall prohibit the construction of either public services facilities installed for the benefit of the Subject Property or public service facilities installed pursuant to an authorization of the Board of Supervisors of the County or the Public Utilities Commission."*

Given this statement alone, Alternative SE-PLR-2 would not conflict with the agreement provided by the scoping commenters. Additionally, as described in Section 4.11.2 above, the CPUC has exclusive jurisdiction over the siting and design of power line projects and substations; therefore, it would not be subject to any local land use agreements, such as the one between the Santa Ysabel Ranch HOA and County of San Luis Obispo. Further, as described in detail in Section 4.4, "Biological Resources," the power line under Alternative SE-PLR-2, with individual poles spaced hundreds of feet apart, would not substantially affect movement of kit fox in this area. While the new power line poles would adversely affect the existing scenic quality and visual character in the area, this would not be a land use impact under significance criterion B (rather, it would be an aesthetics impact; see Section 4.1, "Aesthetics," for discussion).

As shown in Figure 4.11-3, Alternative SE-PLR-2 is located entirely outside of the ALUP area for the Paso Robles Municipal Airport. The Alternative SE-PLR-2 route would cross over the County FH combining designation in several places; but, as discussed in Impact LU-2, the pole structures would not reasonably obstruct flood flows and would not subject persons to hazards from being located in the flood zone. Regarding the RE designated areas, the Alternative SE-PLR-2 power line would not preclude future development of renewable energy resources in this area. As such, impacts under significance criterion B would be **less than significant.**

Alternative BS-2: Battery Storage to Address the Distribution Objective

As described in Chapter 3, *Alternatives Description,* potential FTM battery storage sites are identified under Alternative BS-2 for illustrative purposes for this DEIR. FTM battery storage facilities could be constructed at the example FTM sites (1 through 8) or at other sites identified in the future. For the sake of this evaluation, development of FTM BESSs at the example FTM sites would have no potential to physically divide an established community as the FTM BESSs would be installed on individual vacant parcels/sites interspersed within the existing developed area or at area substations. Generally, BESSs would be either contained within buildings or potentially exposed as stacked containers and other associated infrastructure. As such, the FTM BESSs would not limit access or movement of people or vehicles in the surrounding area, although some disturbance to the community during construction is possible.

As shown on Figure 4.11-1 and Figure 4.11-4, FTM sites are located on lands designated Agriculture and Residential Suburban, or zoned Residential Single Family (R1), Regional Commercial (RC), or Airport (AP). As public utility facilities (similar in nature to small substations), the BESSs would be allowable or permitted uses on these land use designations and zoning districts. For these example locations, Alternative BS-2 would not conflict with the local land use designations or zoning. As shown in Figure 4.11-3, FTM Site 5 is located within the ALUP area and is in fact located directly adjacent to the CAL FIRE Air Attack Base and Paso Robles Municipal Airport. However, the BESS facility would be no taller than the surrounding buildings and would not pose a hazard to aircraft or substantially conflict with the ALUP.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

Specific locations of individual BTM facilities under Alternative BS-3 are unknown; however, as described in Chapter 3, *Alternatives Description*, BTM solar and battery storage facilities would most likely be placed on or within existing buildings. Should a BTM solar or battery storage facility be placed on an existing commercial, industrial, or residential property, it would not physically divide an existing community.

Because specific locations for individual BTM facilities are unknown, whether or not construction of facilities would conflict with any local land use policies, plans or regulations requiring discretionary approval would also be unknown. A determination as to whether or not such potential conflict(s) would constitute a substantive adverse impact to land use would be considered speculative. Generally, BTM solar and battery storage facilities would be placed on or within existing buildings and are not expected to substantially change the existing land use of the property on which they are installed.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

4.12 Mineral Resources

4.12.1 Introduction

This section describes the setting and potential impacts related to mineral resources from the Proposed Project, reasonably foreseeable distribution components, and alternatives. Mineral resources include rock aggregate, oil and gas deposits, iron ore, and other materials used in industry or construction.

4.12.2 Regulatory Setting

Federal Laws, Regulations and Policies

No federal laws, regulations, or policies apply to mineral resources and the Proposed Project, reasonably foreseeable distribution components, and alternatives.

State Laws, Regulations and Policies

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) requires that the State Mining and Geology Board identify, map, and classify aggregate resources throughout California that contain regionally significant mineral resources. Designations of land areas are assigned by the CDOC and CGS following analysis of geologic reports and maps, field investigations, and using information about the locations of active sand and gravel mining operations. The objective of the designation process is to ensure, through appropriate local lead agency policies and procedures, that mineral materials would 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.

Local jurisdictions are required to enact planning procedures to guide mineral conservation and extraction at particular sites and to incorporate mineral resource management policies into their general plans. The three Mineral Resource Zone (MRZ) classifications used in the SMARA classification-designation process are defined below (CDOC 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.

- **MRZ-4:** Areas where available information is inadequate for assignment to any other zone.

4.12.3 Environmental Setting

Surface Mines and Quarries

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, of which only Lime Mountain (approximately 17 miles west of Paso Robles) is still in operation (County of San Luis Obispo 2015).

Per the State Geologist's land classifications under SMARA, Estrella Substation and a majority of the 70 kV power line route would be located within areas classified as MRZ-1. Two segments of the new 70 kV power line segment would be constructed in areas classified as MRZ-3. The nearest MRZ-2 zone is delineated along the Salinas River approximately 0.3 mile southwest of the proposed 70 kV power line reconductoring segment. Additional areas of Huer Huero Creek approximately 5 miles southeast of Estrella Substation have been reclassified as MRZ-2 (CDOC 2011b).

Alternative substation sites (Alternative SS-1 and SE-1A) are located within areas classified as MRZ-3. Alternatives PLR-1A and PLR-1C would be similar to the Proposed Project because the majority of the alignments would be located within areas either classified as MRZ-1 or MRZ-3. Alternatives SE-1A and portions of Alternative SE-PLR-2 are located closer to the Salinas River, where there are areas that are classified as MRZ-2. The overall mineral resource zoning in these MRZ-2 areas is for Portland Cement Concrete Grade aggregate (CDOC 2011b).

Figure 4.12-1 shows open pit mines and quarries located within the Proposed Project, reasonably foreseeable distribution components, and alternatives vicinity. Most of these mines and quarries are located in and around the Salinas River and are streambed or gravel bar skimming and pitting operations, where the primary product is sand and gravel.

Oil, Gas, and Geothermal Resources

According to San Luis Obispo County, commercially extractable petroleum resources have not been encountered within their jurisdiction, or are not of a high enough quality to support their extraction (County of San Luis Obispo 2015). The California Division of Oil, Gas, and Geothermal Resources (DOGGR) oversees the drilling, operation, maintenance, and plugging and abandonment of oil, natural gas, and geothermal wells in California, and tracks every known oil, gas, and geothermal well and oil and gas field in the state.

Figure 4.12-2 depicts data obtained from DOGGR of known geothermal wells and plugged oil and gas dry holes located within the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives. As indicated in Figure 4.12-2, two geothermal wells are located within 0.25 mile of the proposed 70 kV power line (within the River Oaks Golf Course in the City of Paso Robles). No known oil, gas, or geothermal wells are located on the Estrella Substation site or in proximity to the reasonably foreseeable distribution components.

As shown on Figure 4.12-2, two plugged oil or gas dry holes are located within 0.25 mile of Alternative PLR-1A and PLR-1C, and these alternatives also pass within 0.25 mile of the same two geothermal wells passed by the Proposed Project (located within the River Oaks Golf Course). Alternative SE-PLR-2 is located within 0.50 mile of two plugged oil or gas dry holes, located east of the alignment. None of the other alternatives are located in close proximity to known oil, gas, or geothermal wells.

Locally Classified Extractive Resource Areas

As described in Appendix A, the County of San Luis Obispo Code (Title 22, Land Use Ordinance) provides regulations for development in delineated Energy and Extractive Resource Areas (EX) and Extractive Resource Areas (EX1), which are both used to indicate areas where mineral or petroleum extraction occurs or where mineral resources are likely to occur. Refer to Appendix A for detailed information on the County of San Luis Obispo Land Use Ordinance regulations. None of the Proposed Project components, reasonably foreseeable distribution components, or the alternative alignments/sites are located within the EX or EX1 combining designations (see Figure 4.11-3 in Section 4.11, “Land Use and Planning”). The nearest EX1 area is within the Salinas River corridor south of Paso Robles.

Other Mineral Resources

No other significant mineral resources (i.e., gold or other valuable metals, magnesium-rich serpentine, or bentonite) are known to exist in the Proposed Project, reasonably foreseeable distribution components, or alternative site areas.

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ESTRELLA SAND PIT
Estrella Rd
N River Rd
Airport Rd
Bonel Ranch Substation Site (Alternative SS-1)
FTM Site 5
Jardine Rd
Paso Robles Municipal Airport
101
NORTH RIVER ROAD RECYCLING PIT
NORTH RIVER ROAD MINE
Jack Oconnell Hwy
46
Nacimiento Lake Dr
24th St
1529 NORTH RIVER ROAD PIT
Paso Robles Substation
Union Rd
Golden Hill Rd
Estrella Substation (Proposed)
SALINAS RIVER BORROW PIT
Paso Robles
FTM Site 4
FTM Site 2
FTM Site 1
FTM Site 3
Creston Rd
Charolais Rd
LONE OAK
Cayucos Rd
MUNARI PIT
NESBITT
Neal Springs Rd
N Bethel Rd
MILLER
Templeton Substation
N Main St
El Pomar Dr
Templeton Substation Expansion (Alternative SE-1A)
TEMPLETON/ORMONDE
Templeton
Las Tablas Rd
FTM Site 6
Old County Rd
SMITH SAND PIT
El Camino Real
DIRTMAN PIT/ TEMPLETON
Lupine Ln
Templeton Rd
S El Pomar Rd
San Miguel
Inset Map
Main Map
Paso Robles
Atascadero
Inset Map
San Luis Obispo
2859 ft
San Miguel Substation
FTM Site 8
Atascadero Lake Park
Lake View Dr
Mountain View Dr
Carmelita Ave
Atascadero Creek
Morro Rd
FTM Site 7
Atascadero Substation
41
San Gabriel Rd
Pheasant Way

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Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Foreseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Mines and Quarries

- Active
- Exempt
- Idle
- Reclaimed
- Closed

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.12-1
Mineral Resources

Source: ESRI 2018, DOGGR 2019, CA DOC 2019, PG&E 2019, SCWA 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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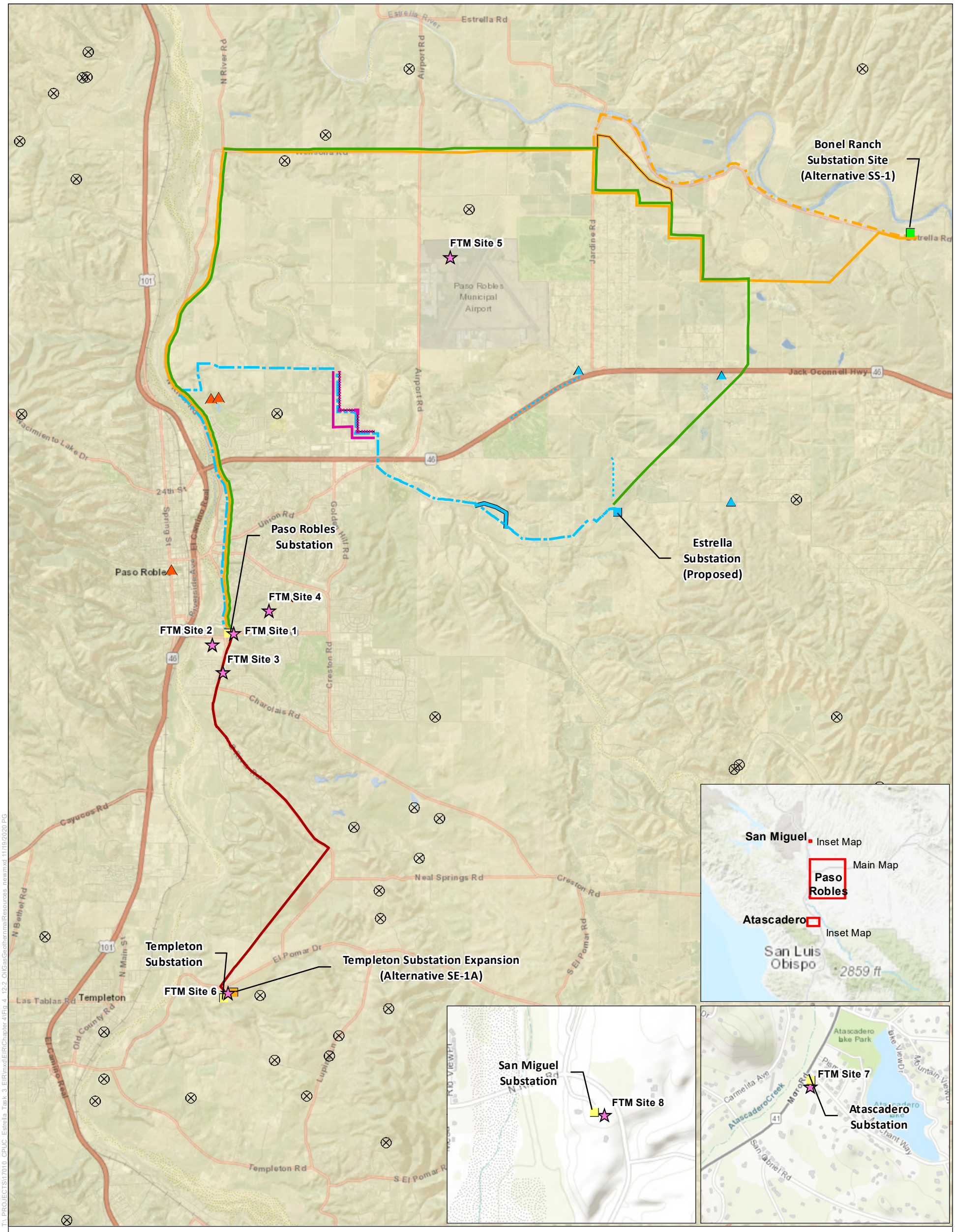

Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Oil, Gas, and Geothermal Resources

- Geothermal Resources
- Plugged Oil/Gas Dry Hole

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.12-2
Oil, Gas, and Geothermal Resources

Source: Paso Robles General Plan 2018, PG&E 2019, SCWA 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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4.12.4 Impact Analysis

Methodology

The impact analysis considered the extent to which the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in the loss of known mineral resources or locally-important mineral resource recovery sites. Effects were evaluated qualitatively in accordance with the significance criteria below.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, it was determined that the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in a significant impact on mineral resources if they would:

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; or

B. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Environmental Impacts

Proposed Project

Impact MR-1: 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 – *Less than Significant*

Per the State Geologist's land classifications under SMARA, the proposed Estrella Substation site is located entirely within an area classified as MRZ-1, or an area with little likelihood for the presence of significant mineral resources. The site currently supports vineyards and does not, and has not in the past, supported mining operations. Thus, there would be no impact on known mineral resources at the proposed substation site.

The proposed 70 kV power line alignment, including Minor Route Variation 1, primarily traverses areas classified as MRZ-1. While there are several existing sand and gravel mining operations located within the Salinas River in Paso Robles, none of these are within 0.25 mile from the Proposed Project 70 kV power line. No portion of the 70 kV power line alignment is located within an area classified as MRZ-2. As such, construction and operation of the proposed 70 kV power line would not affect any known mineral resources.

Segments of the proposed 70 kV power line alignment, including the segment crossing Huer Huero Creek and an additional approximately 2 miles of the proposed new 70 kV power line segment, traverse areas classified as MRZ-3, which are areas containing known or inferred mineral occurrences of unknown mineral resource significance. If significant mineral resources are ultimately determined to be present within these areas, the presence of the power line could potentially hinder mineral resource accessibility. For example, the presence of a power line pole would prevent development of a mine in this immediate area. However, due to the fact that the poles would be spaced hundreds of feet apart, this should not significantly affect the

availability of the mineral resources that may be identified in the future. Additionally, given the current land uses along the Proposed Project 70 kV power line alignment (primarily agricultural, as well as industrial and rural residential), the likelihood of future mining in these areas is low. Mining uses are not prohibited within existing PG&E easements as long as they do not interfere with PG&E's easement rights and usage, and do not create a G.O. 95 and/or a California Division of Occupational Safety and Health infraction (NEET West and PG&E 2017).

The two geothermal wells located within the River Oaks Golf Course are approximately 580 feet and 950 feet southeast of the closest features of the Proposed Project. Construction would not extend near or above the existing wells or into the River Oaks Golf Course parcel. As depicted in Figure 2-7 (see Sheet 5) in Chapter 2, *Project Description*, Clubhouse Drive would be used to access construction areas to the north, but use of the access road by construction equipment and vehicles is not expected to impact well servicing units and associated equipment required to service the existing wells. Additionally, Proposed Project-related construction activities along public roadways in this area would be temporary and limited in nature. The Proposed Project does not include the construction of any infrastructure (e.g., fencing, landscaping, trees, etc.) along Clubhouse Drive or anywhere that might obstruct access to oil, gas, or geothermal wells.

Overall, construction and operation of the Proposed Project components would not result in the loss of availability of known mineral resources that would be of value to residents of the region or the state. Therefore, this impact would be **less than significant.**

Impact MR-2: 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*

As described in Section 4.12.3, the Proposed Project is not located within an EX or EX1 combining designation or any other locally-important mineral resource recovery site or area delineated on a local general plan, specific plan, or other land use plan. Therefore, **no impact** would occur.

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

The reasonably foreseeable new distribution line segments and additional 21/12 kV pad-mounted transformers are located in areas classified as MRZ-1 (CDOC 2011a, 2011b). Therefore, construction and operation of these facilities would not affect known mineral resources. Likewise, as shown in Figure 4.12-1 and Figure 4.12-2, no mines or quarries or oil, gas, or geothermal wells exist within or in close proximity to the reasonably foreseeable distribution components. The equipment and facilities associated with ultimate substation buildout would primarily be placed within the fence line of the already-constructed Estrella Substation. As a result, construction and operation of the reasonably foreseeable distribution components and infrastructure affiliated with ultimate substation buildout would have no potential to impact any of these types of resources. Additionally, distribution components and infrastructure related to ultimate substation buildout are not located not located within an EX or EX1 combining designation and would not affect the availability of a locally-important mineral resource recovery site. Therefore, **no impact** would occur under significance criteria A or B.

Alternatives

No Project Alternative

Under the No Project Alternative, no new substation or 70 kV power line would be constructed or operated. Therefore, there would be no potential for any new physical features to limit accessibility to known mineral resources and there would be no change to the existing baseline conditions. Therefore, **no impact** would occur under significance criteria A or B.

Alternative SS-1: Bonel Ranch Substation Site

As noted in Section 4.12.3, the Bonel Ranch Substation Site is located within an area classified as MRZ-3 (i.e., an area containing known or inferred mineral occurrences of unknown mineral resource significance). If significant mineral resources are determined present within these areas in the future, these resources could be made locally inaccessible as a result of construction of the substation. The substation would occupy a total of roughly 15 acres and would prevent mining of materials within this immediate area. As such, relative to the proposed Estrella Substation, Alternative SS-1 has a greater potential for impacts to mineral resources. Nevertheless, the Bonel Ranch site is currently used for agriculture and does not support mining operations, and any future mining activities on the site are speculative. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative SS-1 is not located within an EX or EX1 combining designation, and thus would not affect locally-designated mineral resource recovery sites. Therefore, **no impact** would occur under significance criterion B.

Alternative PLR-1A: Estrella Route to Estrella Substation

Alternative PLR-1A is approximately 6.5 miles longer than the Proposed Project 70 kV power line, requiring a greater amount of ground disturbance and a longer duration of construction. Alternative PLR-1A also traverses a larger portion of lands designated as MRZ-3, as compared to the Proposed Project 70 kV power line alignment. As discussed above under Impact MR-1, if significant mineral resources are determined to be present within the MRZ-3 areas, the presence of the power line could potentially hinder mineral resource accessibility (e.g., presence of a power line pole would prevent development of a mine on this immediate area); however, due to the fact that the poles would be spaced hundreds of feet apart, this should not significantly affect the overall availability of the mineral resources. No portion of the alignment is located within an area classified as MRZ-2.

As shown on Figure 4.12-1, one active mine (North River Road Recycling Pit) and one inactive mine (North River Road Mine) are located within immediate proximity to the Alternative PLR-1A reconductoring segment. In this area, under Alternative PLR-1A, the existing 70 kV line between San Miguel Substation and Paso Robles Substation would be reconductored, including pole replacement. The existing 70 kV line follows North River Road in this area. Construction activities for Alternative PLR-1A could potentially disturb operations at the North River Road Recycling Pit due to construction equipment and vehicles needed to access the pole work areas; however, it is unlikely that mining operations would be significantly impacted. Once installed, the reconductored 70 kV power line would not be meaningfully different from the existing line and would not affect mining/resource recovery operations.

Alternative PLR-1A would pass by the same two geothermal wells (both over 1000 feet away) at River Oaks Golf Course that are discussed for the Proposed Project. Similar to the Proposed Project, equipment access from public streets during construction of Alternative PLR-1A is not expected to impact well servicing units or equipment. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative PLR-1A does not traverse areas designated as EX or EX1 combining designation, nor does it cross any other locally-important mineral resource recovery areas. As such, **no impact** would occur with respect to significance criterion B.

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

The Alternative PLR-1C route would be largely similar to Alternative PLR-1A, but would start at the Bonel Ranch site rather than the proposed Estrella Substation. Alternative PLR-1C is similar in length to Alternative PLR-1A and similarly requires an extended construction duration compared to the Proposed Project. Alternative PLR-1C also traverses a larger portion of lands designated as MRZ-3 compared to the Proposed Project alignment, but construction and operation of Alternative PLR-1C would not significantly affect the availability of resources in MRZ-3 areas should they be found to be significant. No portion of the alignment is located within an area classified as MRZ-2.

The reconductoring segment for Alternative PLR-1C would be identical to that for Alternative PLR-1A. As such, it would pass by the same active and inactive mines along North River Road. Refer to the discussion above under "Alternative PLR-1A" for potential impacts on mining/resource recovery activities from the reconductoring segment construction and operation. The Alternative PLR-1C reconductoring segment also would pass by the same two geothermal wells (both over 1000 feet away) at River Oaks Golf Course as the Proposed Project 70 kV power line reconductoring segment and Alternative PLR-1A. As discussed above, these impacts would not be significant. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative PLR-1C is not located within an EX or EX1 combining designation, nor does it cross other locally-important mineral resource recovery areas. As such, **no impact** would occur under significance criterion B.

Alternatives PLR-3: Strategic Undergrounding (Options 1 and 2)

While Alternative PLR-3 (both options) would include additional excavation required for undergrounding a portion of the power line alignment, the potential effects on mineral resources from construction and operation of Alternative PLR-3 would be largely similar to those from the Proposed Project. The Alternative PLR-3 undergrounding route options would pass through areas designated as MRZ-1 or not classified for mineral resources and no existing mines or oil, gas, or geothermal wells are located in this area. The Alternative PLR-3 underground components would largely be installed within existing streets or through industrial areas and would not affect the availability of mineral resources. Therefore, impacts under significance criterion A would be **less than significant**.

The Alternative PLR-3 alignment is not located within an EX or EX1 area. Therefore, **no impact** would occur under significance criterion B.

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

As noted in Section 4.12.3, the Templeton Substation Expansion Site is located within an area classified as MRZ-3, or an area containing known or inferred mineral occurrences of unknown mineral resource significance. If significant mineral resources are determined present within these areas, these resources could be made locally inaccessible as a result of construction of the substation. The substation would occupy a total of roughly 15 acres and would prevent mining of materials within this area. As such, relative to the proposed Estrella Substation, Alternative SE-1A has a greater potential for impacts to mineral resources. Nevertheless, the Templeton Substation Expansion Site is currently used for agriculture and does not support mining operations, and any future mining activities on the site are speculative. Therefore, impacts under significance criterion A would be **less than significant**.

Alternative SE-1A is not located within an EX or EX1 combining designation, and thus would not affect locally-designated mineral resource recovery sites. As a result, **no impact** would occur under significance criterion B.

Alternative SE-PLR-2: Templeton-Paso South River Road Route

The Alternative SE-PLR-2 power line route would be shorter than the proposed 70 kV power line alignment and would have a 9-month shorter construction schedule. Alternative SE-PLR-2 traverses a larger portion of lands designated as MRZ-3, as compared to the Proposed Project alignment. As discussed above under Impact MR-1, if significant mineral resources are determined to be present within the MRZ-3 areas, the presence of the power line could potentially hinder mineral resource accessibility (e.g., the presence of a power line pole could prevent development of a mine on this immediate area); however, due to the fact that the poles would be spaced hundreds of feet apart, this should not significantly affect the overall availability of the mineral resources. No portion of the alignment is located within an area classified as MRZ-2.

None of the existing mines or quarries in proximity to Alternative SE-PLR-2 are close enough to be potentially affected by construction or operation of the alternative. Likewise, two existing plugged oil/gas dry holes in the area are both located over 1,500 feet east and would not be affected by construction or operation activities. As a result, impacts under significance criterion A would be **less than significant.**

Alternative SE-PLR-2 does not traverse lands designated as EX or EX1 and therefore would not significantly affect availability of locally-designated mineral resource recovery sites. Therefore, **no impact** would occur under significance criterion B.

Alternative BS-2: Battery Storage to Address Distribution Need

Construction of FTM BESSs under Alternative BS-2 would involve similar construction activities (e.g., grading, earth-moving) as the proposed Estrella Substation. Should it be determined that mineral resources are present beneath a site selected for an FTM BESS, the presence of FTM BESSs could potentially hinder mineral resource accessibility (e.g., the presence of infrastructure could prevent development of a mine within the immediate area). However, due to the limited size required for these facilities, this should not significantly affect the overall availability of the mineral resources. For those illustrative FTM sites considered in this DEIR, FTM Site 6 is located at the Templeton Substation Expansion Site, which is within an area designated as MRZ-3.

Construction and operation of a FTM BESS at this site would have similar potential to impact the availability of mineral resources in this location as discussed above for Alternative SE-1A . None of the other example FTM sites are within MRZ-3 areas and none of the FTM sites are within MRZ-2. Additionally, no existing mines, quarries, or oil, gas, or geothermal resources are located in close proximity to any of the example FTM sites. Likewise, none of the FTM sites are located on areas designated as EX or EX1.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Behind-the-Meter Battery Storage

The specific locations of development sites under Alternative BS-3 are unknown. As described in Chapter 3, *Alternatives Description,* individual BTM solar and storage facilities would be installed primarily on or within existing buildings. In these situations, installation of BTM facilities would have little to no potential to impact mineral resources. In situations where a commercial, industrial, or residential property owner were to install new BTM solar and/or BESS facilities on previously undeveloped portions of their property; there is potential for impacts to mineral resources if mineral resources were determined to be present in these areas. Nevertheless, developed commercial, industrial, and residential properties are likely to be properties where mineral resources are already unavailable.

Given that the only EX or EX1 areas within the greater Paso Robles area are located within the immediate Salinas River corridor south of Paso Robles Substation (see Figure 4.11-3 in Section 4.11, “Land Use and Planning”), it is unlikely that BTM facilities would be installed in these areas. Even if they were, they would be unlikely to significantly affect the locally-designated mineral resources in these areas.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

4.13 Noise and Vibration

4.13.1 Introduction

This section describes the regulatory setting and existing noise environment in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives; identifies sensitive noise and vibration receptors that could be affected by proposed activities; and evaluates the potential noise and vibration impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives.

4.13.2 Overview of Noise and Vibration Concepts and Terminology

Noise

In the CEQA context, noise can be defined as unwanted sound. Sound is characterized by various parameters, including the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient sound level, or sound intensity. The decibel (dB) scale is used to quantify sound intensity. Because sound pressure can vary enormously within the range of human hearing, a logarithmic scale is used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all frequencies in the spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive, creating the A-weighted decibel (dBA) scale. Different types of measurements are used to characterize the time-varying nature of sound. Below are brief definitions of these measurements and other terminology used in this section.

- *Decibel (dB)* is a measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro pascals.

- *A-weighted decibel (dBA)* is an overall frequency weighted sound level in decibels that approximates the frequency response of the human ear.

- *Maximum sound level (Lmax)* is the maximum sound level measured during a given measurement period.

- *Minimum sound level (Lmin)* is the minimum sound level measured during a given measurement period.

- *Equivalent sound level (Leq)* is the equivalent steady-state sound level that, in a given period, would contain the same acoustical energy as a time-varying sound level during that same period.

- *Day night sound level (Ldn)* is the energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels during the period from 10:00 p.m. to 7:00 a.m. (typical sleeping hours). This weighting adjustment reflects the elevated sensitivity of individuals to ambient sound during nighttime hours.

- *Community noise equivalent level (CNEL)* is the energy average of the A-weighted sound levels during a 24-hour period, with 5 dB added to the A-weighted sound levels between 7:00 p.m. and 10:00 p.m. and 10 dB added to the A-weighted sound levels between 10:00 p.m. and 7:00 a.m.

In general, human sound perception is such that a change in sound level of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level. Table 4.13-1 presents approximate noise levels for common noise sources.

Table 4.13-1. Examples of Common Noise Levels

Common Outdoor Activities	Noise Level (dBA)
Jet flyover at 1,000 feet	110
Gas lawnmower at 3 feet	100
Diesel truck at 50 feet traveling 50 miles per hour	90
Noisy urban area, daytime	80
Gas lawnmower at 100 feet, commercial area	70
Heavy traffic at 300 feet	60
Quiet urban area, daytime	50
Quiet urban area, nighttime	40
Quiet suburban area, nighttime	30
Quiet rural area, nighttime	20

Notes: dBA = A-weighted decibel

Source: Caltrans 2013

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 (NEET West and PG&E 2017).

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 (NEET West and PG&E 2017).

Vibration

Ground-borne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hertz (Hz). Most environmental vibrations consist of a composite, or "spectrum," of many frequencies. The normal frequency range of most ground-borne vibrations that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz. Vibration information for this analysis has been described in terms of the peak particle velocity (PPV), measured in inches per second, or of the vibration level measured with respect to root-mean-square vibration velocity in decibels (VdB), with a reference quantity of 1 micro-inch per second.

Vibration energy dissipates as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. High-frequency vibrations reduce much more rapidly than do those characterized by low frequencies, so that in a far-field zone distant from a source, the vibrations with lower frequency amplitudes tend to dominate. Soil properties also affect the propagation of vibration. When ground-borne vibration interacts with a building, a ground-to-foundation coupling loss usually results but the vibration also can be amplified by the structural resonances of the walls and floors. Vibration in buildings is typically perceived as rattling of windows, shaking of loose items, or the motion of building surfaces. In some cases, the vibration of building surfaces also can be radiated as sound and heard as a low-frequency rumbling noise, known as ground-borne noise.

Ground-borne vibration is generally limited to areas within a few hundred feet of certain types of industrial operations and construction/demolition activities, such as pile driving. Road vehicles rarely create enough ground-borne vibration amplitude to be perceptible to humans unless the receiver is in immediate proximity to the source or the road surface is poorly maintained and has potholes or bumps. Human sensitivity to vibration varies by frequency and by receiver. Generally, people are more sensitive to low-frequency vibration. Human annoyance also is related to the number and duration of events; the more events or the greater the duration, the more annoying it becomes.

4.13.3 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies for construction-related noise and vibration apply to the Proposed Project, reasonably foreseeable distribution components, and alternatives. However,

the Federal Transit Administration (FTA) guidelines for construction vibration in the Transit Noise and Vibration Impact Assessment Manual (FTA 2018) have been used to analyze the Project's potential noise impacts. These guidelines state that for evaluating daytime construction noise impacts in outdoor areas, a noise threshold of 90 dBA Leq should be used for residential areas (FTA 2018). For construction vibration impacts, the FTA guidelines use an annoyance threshold of 80 VdB for infrequent events (fewer than 30 vibration events per day) and a damage threshold of 0.2 in/sec PPV for non-engineered timber and masonry structures (FTA 2018).

State Laws, Regulations, and Policies

California Public Utilities Commission General Order 131-D

The CPUC has sole and exclusive jurisdiction over the siting and design of the Proposed Project and alternatives because it authorizes the construction, operation, and maintenance of investor-owned public utility facilities. CPUC G.O. 131-D explains that local land use and zoning regulations and discretionary permitting would not apply to the Project or alternatives (i.e., they would not require any land use approval that would involve a discretionary decision to be made by a local agency such as a planning commission, city council, or county board of supervisors). As such, the state and local policies and ordinances that would otherwise be relevant to the Project and alternatives are described in Appendix A of this DEIR for informational purposes only. G.O. 131-D, Section XIV.B, does require that in locating a project "the public utility shall consult with local agencies regarding land use matters."

State Land Use Compatibility Standards for Community Noise Exposure

California requires each local government entity to implement a noise element as part of its general plan and sets compatibility standards for land uses as a function of community noise exposure. The state land use compatibility guidelines (contained in California Administrative Code, Title 4) are listed in Table 4.13-2. In areas where the noise environment is "acceptable," new development may be permitted without requiring noise mitigation. For areas where the noise environment is "unacceptable," new development in compliance with noise policies is usually not feasible. In order for a location to be compatible for utilities, the community noise exposure level should not exceed 75 dB.

Table 4.13-2. State Land Use Compatibility Standards for Community Noise Environment

Land Use Category	Community Noise Exposure - L_{dn} or CNEL (dB)						
	55	60	65	70	75	80	
Residential – Low Density Single Family, Duplex, Mobile Homes							
Residential – Multi-Family							
Transient Lodging – Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

Normally Acceptable:	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable:	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable:	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable:	New construction or development generally should not be undertaken.

Source: California Governor's Office of Planning and Research 2017

4.13.4 Environmental Setting

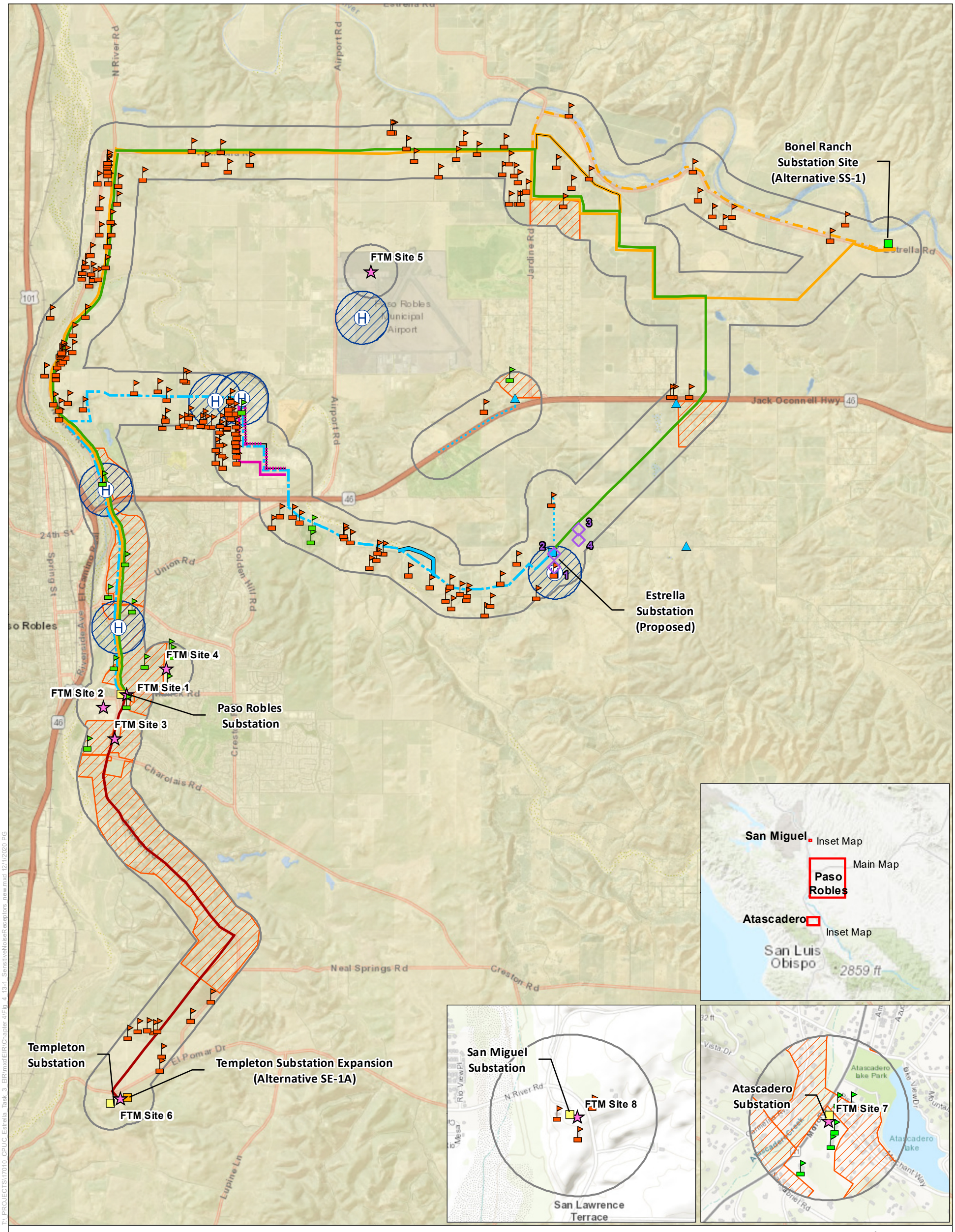
Existing Regional Noise and Land Uses

The Proposed Project, reasonably foreseeable distribution components, and alternatives are located within the northern portion of San Luis Obispo County, including portions of Paso Robles. Contributors to the noise environment primarily consist 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 the proposed Estrella Substation site are mostly agricultural (i.e., vineyards). Land uses within and along the proposed 70 kV power line route include agricultural and residential, as well as industrial (Golden Hill Industrial Park) and public open space and recreation (e.g., Barney Schwartz Park, Cava Robles RV Resort).

In general, the reasonably foreseeable distribution components and many of the alternatives pass through similar or more rural areas. The southern reasonably foreseeable new distribution line segment would follow an existing road through agricultural fields north of the Estrella Substation site, while the northern reasonably foreseeable new distribution line segment would follow the SR 46 right-of-way. The additional 21/12 kV pad-mounted transformers would be installed along existing roads in relatively rural areas of San Luis Obispo County. Both of the alternative substation sites (Alternative SS-1 and SE-1A) are located in rural parts of the County on parcels currently being used for agricultural purposes. Alternatives PLR-1A and PLR-1C would both route the 70 kV power line through rural and agricultural areas east and north of Paso Robles. Alternative SE-PLR-2 would connect the substation under Alternative SE-1A to Paso Robles Substation and would pass through agricultural, rural residential, and urban areas. Several of the example FTM battery storage sites considered as part of the DEIR analysis for the purposes of discussion under Alternative BS-2, would be located in residential and commercial areas of Paso Robles (i.e., FTM Sites 1-4); while the remaining sites would be located in more rural areas adjacent to the CAL FIRE Air Attack Base (FTM Site 5) and area substations (FTM Sites 6-8) (note: FTM Site 7 is located within the City of Atascadero and is close to an existing church).

Baseline Noise Survey

As described in the PEA, SWCA Environmental Consultants conducted a community noise survey to measure background ambient noise levels at the proposed Estrella Substation site. The survey measured existing noise levels at roughly each corner of the Estrella Substation study area. The noise monitoring locations are shown in Figure 4.13-1. Table 4.13-3 provides a summary of the sound measurement data obtained from the noise survey, which the analysis uses as the baseline noise levels for the substation site.



Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Sensitive Receptor Features

- Non-residence Sensitive Receptor
- Noise Level Monitoring Location
- Residence
- Residential Area (Approximate)
- Helicopter Landing Zones (HLZ)
- HLZ dB Theshold Distance (1,427 feet)*
- dB Theshold Distance (1,427 feet)

*threshold does not include helicopter flight paths

Source: Paso Robles General Plan 2018, PG&E 2019, SCWA 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.13-1
Sensitive Noise Receptors

Estrella Substation and Paso Robles Area Reinforcement Project

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Table 4.13-3. Summary of Ambient Sound Measurements

Source	L_{eq}	CNEL	L_{dn}	L_{day} 7 a.m. – 10 p.m.	L_{night} 10 p.m. – 7 a.m.
Location 1[1]	48.4	53.3	52.8	49.6	45.5
Location 2	47.6	50.9	50.0	49.3	41.0
Location 3	45.7	50.9	50.4	46.7	43.4
Location 4	50.5	53.7	53.2	52.1	44.5
Average Baseline	48.1	52.2	51.6	49.4	43.6
Maximum Baseline	50.5	53.7	53.2	52.1	45.5

Notes:

L_{eq} = equivalent sound level; CNEL = community noise equivalent level; L_{dn} = day night sound level; L_{day} = day sound level; L_{night} = night sound level

1. Location 1 is the approximate location of the nearest residence to Estrella Substation.

Source: NEET West and PG&E 2017

As shown in Table 4.13-3, in general, noise levels observed during the survey were relatively low, with a maximum baseline CNEL of 53.7 dBA, which is roughly equivalent to a quiet urban area in the daytime (see Table 4.13-1). However, nighttime ambient noise levels at Location 1 slightly exceed the County of San Luis Obispo's hourly nighttime exterior noise standard of 45 dBA; see Section 4.13.3 and Appendix A of this DEIR for further discussion/information. The baseline noise survey measurements omit several sources of ambient noise resulting from agricultural activities (e.g., farm equipment used during harvest season, pesticide-application machinery, and low-flying fire-fighting aircraft) because they occur only at specific times of the year. During these times of the year, ambient sound levels would be higher than those shown in Table 4.13-3. Baseline noise surveys were not conducted for the Proposed Project's 70 kV power line alignment or the reasonably foreseeable distribution components and alternatives areas because, unlike the substation, the power lines and distribution components are not expected to add any noise beyond corona noise, which would not be perceptible above the noise of the existing 500 kV and 230 kV transmission lines; in addition, no sensitive receptors would be permanently sited at the transmission lines. While not surveyed, it can reasonably be assumed that portions of the proposed sites and alignments close to SR 46 and busy, urban areas of Paso Robles may have higher levels of baseline noise than those measured at the Estrella Substation site. Portions of the 70 kV power line alignment farther away from SR46, and/or in less urbanized areas of Paso Robles, would be expected to have relatively low noise levels and a maximum baseline CNEL similar to that of the Estrella Substation site (see Table 4.13-3).

Highway 101 is located roughly 0.25 mile to the west of the reconductoring segment for the Proposed Project and Alternatives PLR-1A and PLR-1C. The northernmost portion of the Proposed Project's 70 kV power line route also would be located approximately 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.

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.

As described in the PEA and shown in Figure 4.13-1, numerous residences are located in proximity to the Proposed Project's new 70 kV power line segment. The nearest of these are two residences within 20 feet of the alignment, with another two within 100 feet (NEET West and PG&E 2017). The nearest residence to the Estrella Substation site is approximately 265 feet southwest of the site (NEET West and PG&E 2017). Because the Proposed Project's 70 kV reconductoring segment passes through an existing residential area of Paso Robles, the reconductoring segment would be near numerous sensitive receptors (i.e., residences) . Additionally, as noted above, the Proposed Project's new 70 kV power line segment would pass adjacent to Barney Schwartz Park and the Paso Robles Sports Club (both located along Union Road), as well as the Cava Robles RV Resort. Based on aerial imagery, the power line would pass approximately 100 feet west of the nearest RV campsite at the Cava Robles RV Resort. No hospitals or schools are located within 0.25 mile of the Proposed Project components, although Tots Landing Daycare is located approximately 265 feet east of the reconductoring segment (NEET West and PG&E 2017). The Grace Baptist Church is located approximately 790 feet east of the reconductoring segment (NEET West and PG&E 2017).

Sensitive receptors in proximity to the reasonably foreseeable distribution components include a residence off of Mill Road. The northern reasonably foreseeable new distribution line segment also would pass by Hunter Ranch Golf Course and would terminate near several residences along Dry Creek Road. As noted above, many of the alternatives would be sited in, or routed through, rural areas but would have some sections that pass through more developed areas, as shown on Figure 4.13-1. The Alternative SS-1 and SE-1A sites are both in rural areas and there are no homes or other sensitive receptors in immediate proximity to the sites. The Alternative PLR-1A and PLR-1C 70 kV alignments would generally pass through rural areas of San Luis Obispo County north of the Paso Robles Airport; however, both alignments would pass close to a number of residences, particularly along Tower Road near the junction with Jardine Road. Like the Proposed Project, the reconductoring segments for Alternatives PLR-1A and PLR-1C would pass through developed areas of Paso Robles, where there are numerous sensitive receptors. Alternative SE-PLR-2 would pass through rural residential areas, including the Santa Ysabel Ranch HOA, as well as residential areas of Paso Robles.

As described in Chapter 3, *Alternatives Description,* potential FTM battery storage sites are identified under Alternative BS-2 for illustrative purposes for this DEIR. Several of these illustrative FTM BESS sites would be located in proximity to residences or other sensitive receptors (see Figure 4.13-1). Specifically, FTM Sites 1-4 would be located in developed areas of Paso Robles, while remaining sites would be in more rural areas (although FTM Site 7 would be located in Atascadero). With the exception of FTM Site 4, which would be located adjacent to the baseball field at Paso Robles High School, none of the FTM sites are located in proximity to schools. As noted above, FTM Site 7 is located next to an existing church.

Airports and Private Airstrips

The northernmost portion of the Proposed Project's new 70 kV power line segment would be located approximately 1 mile southwest of the Paso Robles Municipal Airport. Figure 4.11-3 in Section 4.11, "Land Use and Planning," shows the proximity of the Proposed Project, reasonably foreseeable distribution components, and alternatives to Paso Robles Municipal Airport Land Use Plan safety zones. According to Figure 2 of the ALUP, portions of the Proposed Project's 70 kV power line route, reasonably foreseeable distribution components, and alternatives (Alternatives PLR-1A, PLR-1C, BS-2 [potential FTM Site 5]) would fall within the 55 dB noise contour at ground level (San Luis Obispo County Airport Land Use Commission 2006). Additionally, the Bonel Airport, a small private airport, is located approximately 0.7-mile south of the Alternative SS-1 site and Alternative PLR-1C route.

4.13.5 Impacts Analysis

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, and alternatives would have a significant effect related to noise if they would meet any of the following conditions:

A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or in the applicable standards of other agencies.

B. Generation of excessive ground-borne vibration or ground-borne noise levels.

C. For a project located within the vicinity of a private airstrip or an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public-use airport, would the project expose people residing or working in the project area to excessive noise levels?

Methodology

Ground-Level Construction Noise

Potential construction-related noise impacts from the Proposed Project, reasonably foreseeable distribution components, and alternatives were assessed by applying the FTA's Transit Noise and Vibration Impact Assessment methodology (FTA 2018). This methodology assumes that the two loudest pieces of construction equipment would operate as follows:

- equipment operates at full power for a full 1-hour period,
- there are no obstructions to the noise travel paths,
- typical noise levels from construction equipment are used, and
- all pieces of equipment would operate at the center of the project site.

Using these assumptions, the noise levels at specific distances can be obtained using the following equation:

$$L_{eq}(equip) = EL_{50ft} - 20log_{10}(D/50)$$

Where:

L_{eq} (equip) = the noise emission level at the receiver at distance D over 1 hour

EL_{50ft} = noise emission level of a particular piece of equipment at a reference distance of 50 feet

D = the distance from the receiver to the piece of equipment in feet

To add the two loudest pieces of equipment together, the following equation applies:

$$L_{total} = 10\ log_{10}(10^{\frac{L1}{10}} + 10^{\frac{L2}{10}})$$

Where:

L_{total} = the noise emission level of two pieces of equipment combined

L_1 = the noise emission level of equipment type 1

L_2 = the noise emission level of equipment type 2

Noise levels at the Proposed Project's nearest sensitive receptors that would be generated by equipment used during project construction were estimated by using FTA reference guide (FTA 2018).

Vibration Methodology

Potential construction-related vibration impacts from the Proposed Project, reasonably foreseeable distribution components, and alternatives were assessed by applying the FTA's Transit Noise and Vibration Impact Assessment methodology (FTA 2018). For the vibration analysis, the two pieces of equipment anticipated to be the largest sources of vibration were used, along with VdB and PPV values from the FTA guide (FTA 2018). The formulas below were used in calculations relating to vibration-related threshold distances:

$$PPV = PPV_{ref} \times (\frac{25}{D})^{1.5}$$

$$L_v(D) = L_v(25ft.) - 30\log(\frac{D}{25})$$

Where:

PPV = peak particle velocity in in/sec of the equipment adjusted for distance

PPV_{ref} = the reference vibration level in in/sec at 25 feet

L_v = vibration level

D = the distance from the equipment to the receiver

Vibration levels generated by equipment used during project construction at the Proposed Project's nearest sensitive receptors that could be affected were estimated by using the FTA reference guide (FTA 2018).

Helicopter Noise

The use of a helicopter for construction activities or for routine maintenance and inspections was evaluated separately due to the unique nature of helicopters and the noise they generate. The main cause of noise from a helicopter is the rotors. Helicopters at close range dominate the noise environment, and noise from other equipment would be indistinguishable. Helicopter noise increases with airspeed and in high-rate climbs and sharp turns. Helicopter noise was estimated using methodologies consistent with the FAA's AEDT Version 3c with a few modifications due to lack of specific helicopter information such as model, speed, and hover heights available to do more complex noise adjustments (FAA 2020). Noise-Power-Distance (NPD) data were determined using the following equation:

$$L_d = L_{d1} + \frac{(L_{d2} - L_{d1}) \times (\log_{10} d - \log_{10} d_1)}{(\log_{10} d_2 - \log_{10} d_1)}$$

Where:

L_d= Noise Level at distance d (dBA)

L_{d1}= Noise Level at distance d1 (dBA)

L_{d2}= Noise Level at distance d2 (dBA)

d = distance of desired noise level (ft)

d_1 = distance of noise level at distance 1 (ft)

d_2 – distance of noise level at distance 2 (ft)

No adjustments were made for lateral attenuation, source noise, or lateral directivity of the helicopters as adequate information was not readily available to make these adjustments. The noise estimates assumed use of a Sikorsky S70 helicopter, which is a representative helicopter model that can handle the desired maximum external hook payload specified in the Project Description. This assumption is conservative as smaller helicopters may be utilized, which tend to have lower noise estimates.

Operation Noise

With the exception of the proposed Estrella Substation, a qualitative approach was used to analyze potential operational noise impacts from the Proposed Project, reasonably foreseeable distribution components, and alternatives because, unlike the substation, the power lines and distribution components are not expected to add any noise beyond occasional maintenance activities and corona noise, which would not be perceptible above the existing 500 kV and 230 kV transmission lines; in addition, no sensitive receptors would be permanently sited at the transmission lines. The qualitative analysis considered approximate distances to sensitive receptors and information regarding noise generated from typical electric facilities and their maintenance to determine the potential significance of operation-related noise from the Proposed Project. Given that noise attenuates with distance, receptors closer to the Project's operations and maintenance activities would be anticipated to have a greater potential to experience significant noise impacts. The Estrella Substation would have various noise-generating equipment, including the 230/70 kV transformer, and the heating, ventilation, and air condition (HVAC) units at the 70 kV and 230 KV control buildings. The transformers and HVAC units were selected as the loudest pieces of equipment to model (using the equations detailed under "Methodology – Ground-Level Construction Noise") as the equipment generating the most noise. The actual layout of the facility would have structures (including other noise-generating equipment) that would function to block and attenuate sound from other sources that were not considered in the model because specific, detailed information to incorporate them into the model is not readily available at this time and excluding them from the model is conservative. Noise estimates were based on vendor-supplied equipment noise levels and used the methods described in the PEA (see PEA Section 3.12, "Noise") (NEET West and PG&E 2017).

Environmental Impacts

Proposed Project

Impact NOISE-1: Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or in the applicable standards of other agencies *– Significant and Unavoidable*

Construction

The Proposed Project would generate temporary noise associated with construction activities, which would cease once construction is complete. Specifically, the noise-causing construction activities include operation of heavy construction equipment and trucks, as well as helicopters, during the construction period would generate noise. As described in Chapter 2, *Project Description,* construction of the Estrella Substation requires excavation and grading of the substation site, necessitating a variety of construction equipment that would generate noise. Construction of the 70 kV power line route would require excavation of pole foundations, potential grading and improvement of access roads, use of helicopters for deliveries of materials and installation of poles, and other activities which would generate noise. Table 2-10 in Chapter 2 shows the construction phases associated with the Estrella Substation and 70 kV power line and the equipment required for each phase.

Consistency with Local Noise Ordinances

The CPUC has exclusive authority over the siting of electric transmission facilities; therefore, it is exempt from local land use and zoning regulations, including noise ordinances and standards. Nevertheless, for the purposes of the Proposed Project DEIR's noise impact analysis, construction or operation activities that substantially exceed the noise regulations of San Luis Obispo County and/or City of Paso Robles would constitute a significant impact. As described in Appendix A, construction noise is exempt from the noise standards defined in the San Luis Obispo County Noise Ordinance, provided that such activities take place from 7 a.m. to 9 p.m. Monday through Friday, and 8 a.m. to 5 p.m. Saturday and Sunday. Similarly, Section 21.60.100 of the City of Paso Robles Municipal Code states that construction and demolition activities located within 1,000 feet of noise-sensitive land uses are exempt from the provisions of the Noise chapter provided that they occur during normal daytime hours. Likewise, general land grading and contour activity 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 a.m. and 7 p.m. (Section 9.07.030[j] of City of Paso Robles Municipal Code; see Appendix A of this DEIR).

As such, Proposed Project construction activities would not generally be subject to the noise regulations of San Luis Obispo County or the City of Paso Robles. As described in Chapter 2, *Project Description,* construction activities for the Estrella Substation and 70 kV power line would typically occur 6 days per week (Monday through Saturday) throughout the duration of construction. Daily work hours would generally be 10 hours per day with construction typically occurring between 7 a.m. and 5:30 p.m. Occasionally, work may occur during the evening hours for activities such as monitoring the substation curing process, and testing and commissioning the new substation components; however, such activities would not normally generate loud noise. Nighttime work also may be required (e.g., when electrical clearances are available or for

safe completion of a construction procedure). This planned approach would comply with Section 21.60.100 of the City of Paso Robles Municipal Code, which allows for certain construction activities (e.g., concrete pours) outside of 7 a.m. to 7 p.m. with authorization from the City. There is no similar exception for the San Luis Obispo County noise ordinance; thus depending on the actual noise levels of the nighttime work, any nighttime work occurring within unincorporated areas of San Luis Obispo County may be inconsistent with County noise standards (see Appendix A).

Per APM NOI-1, the Applicants would limit grading, scraping, augering, and pole installation to 7 a.m. to 7 p.m. daily. Additionally, under APM AG-1, the Applicants would provide at least 30 days' advance notice of construction activities to all properties within 300 feet of the substation or power line route. The notice would describe where and when construction activity is planned and shall provide contact information for a point of contact for complaints related to construction activities (including noise-related complaints).

Noise Modeling and Relationship to FTA Impact Guidelines

As described above under, "Methodology," estimated construction equipment noise levels, as provided in Table 4.13-4, was determined by using the FTA's Transit Noise and Vibration Impact Assessment methodology. 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. Consistent with FTA methodology, the two noisiest pieces of equipment are assumed to be operating in the center of a given construction work area. Typical noise levels were taken from the FTA or FHWA. It was assumed that most construction phases would require use of the two maximum noise generating pieces of equipment (85 dBA) (see Appendix E, Noise and Vibration Analyses).

Table 4.13-4.Estimated Construction Equipment Noise Levels

Construction Phase	Combined Noise at 50 Feet[1] (dBA)	Distance to 90 dBA from Center of Site (feet)
Estrella Substation	88	39.7
70kv Powerline – Reconductoring Segment	88	39.7
70kv Powerline – New Segment	88	39.7

Notes:

dBA = A-weighted decibel

1. Based on the noisiest two pieces of equipment.

As shown in Table 4.13-4, construction noise for the Proposed Project components from the noisiest two pieces of equipment would reach a maximum of 88 dBA at 50 feet. The distance to 90 dBA, which is the FTA's recommended threshold for impacts to noise-sensitive land uses, is roughly 40 feet for all Proposed Project components. Given the proximity of sensitive receptors to the Estrella Substation site (265 feet to nearest residence), the construction activities would not cause substantial noise impacts. Several sensitive receptors are within 40 feet of the new 70 kV power line segment, including numerous homes located along the reconductoring segment.

Residences that are within this distance would be subjected to substantial noise from ground-level construction equipment, albeit for a limited period of time in any one location.

In addition to noise from the ground-level construction activities, sensitive receptors would be exposed to noise from helicopters, which may be used to install poles and replace transmission towers when the use of cranes is not feasible. Table 4.13-5 shows the estimated helicopter noise levels associated with construction of the Proposed Project in terms of the distance to the FTA's 90 dBA threshold.

Table 4.13-5. Helicopter Noise Levels and Distance to Threshold

Helicopter Activity	Distance to 90 dBA (feet)
Approaching landing zone or installation site[1]	1,427
Ground level idling	(Note 2)
Level flight	1,304 (Note 3)

Notes:

dBA = A-weighted decibel

1. Approaching produced higher noise levels than departing, so departing noise levels is not shown.
2. Ground level idling is below 90 dBA at all distances.
3. Appropriate hovering noise data is not readily available and is highly dependent on how close the helicopter is to the ground.

As indicated in Table 4.13-5, helicopters would make a substantial amount of noise such that the noise level would be above 90 dBA within 1,427 feet of a helicopter landing zone or pole or cable installation site. Based on the NPD data, approaching landing zones and/or installation sites would generate the most noise out of the types of helicopter activities that could occur during Proposed Project construction. Thus, all sensitive receptors within 1,427 feet of helicopter landing zones or pole installation sites would be subjected to noise levels exceeding the FTA's recommended significance threshold. Likewise, all sensitive receptors along or within 1,304 feet of the flight path would be subject to level flight noise in excess of 90 dBA. Noise impacts associated with ground-level idling and hovering above ground would be reduced, comparatively. The most severe impacts associated with helicopter activities would be those along the reconductoring segment, where there are numerous residences in close proximity to the existing 70 kV power line and construction work areas.

Measures to Reduce Impacts

As noted above, under APM NOI-1, the Applicants would limit noise-intensive construction activities to the hours of 7 a.m. to 7 p.m. daily. This would limit impacts because individuals have elevated sensitivity to ambient sound during the evening and nighttime hours. Additionally, APM AG-1 would require that the Applicants provide advance notice of construction activities to all properties within 300 feet of the substation or power line route. This measure would

minimize impacts by potentially allowing affected property owners to schedule their activities around the noise-generating construction activities and ensuring that property owners are not caught off-guard by the activities.

Additionally, APM NOI-2 would minimize the noise impacts from ground-level construction equipment. Specifically, APM NOI-2 would require, when feasible: (1) construction equipment use noise reduction devices that are no less effective than those originally installed by the manufacturer; (2) stationary equipment used during construction be located as far as practical from sensitive receptors; and (3) "quiet" equipment (i.e., equipment that incorporates noise control elements into the design) be used during construction when reasonably available. These measures would limit some of the noise associated with ground-level construction activities, but given that the measures would only be implemented "where feasible," they cannot be guaranteed to reduce impacts. Nevertheless, the ground-level construction noise from the Proposed Project would not be significant given: (1) the limited number of noise-sensitive receptors in proximity to much of the Proposed Project; (2) the relatively rapid attenuation of even the loudest pieces of construction equipment with distance from the source, and (3) the impacts would be temporary and occur over a relatively short duration at individual structure locations or segments of the 70 kV power line alignment (as opposed to work occurring along the entire alignment simultaneously).

As indicated above, the helicopter noise would be substantial, particularly for receptors along the reconductoring segment, where there are numerous residences within 50 feet of the potential work areas. There are residences as close as 100 feet to planned helicopter landing zones in this area and helicopters operating above pole installation locations could be as close as about 250 feet to residences (NEET West and PG&E 2017). Although noise impacts from helicopters would be temporary, occur in one location at a time along the linear power line construction area, and local noise regulations allow for construction noise during daytime hours, residences close to the reconductoring segment and along helicopter flight paths would experience significant helicopter noise impacts. To minimize these impacts, **Mitigation Measures NOI-1** and **NOI-2** would be implemented and supersedes APM NOI-1 but retains APM NOI-2, which would require advanced notification of sensitive receptors in areas potentially affected by helicopter noise, identification and use of helicopter flight paths that minimize impacts to sensitive receptors, and siting final helicopter landing zones as far from sensitive receptors as possible. However, even with implementation of this mitigation measure, the impacts from helicopter construction noise would still be significant. No other feasible mitigation is available given that it is necessary to operate helicopters in close proximity to noise-sensitive receptors to construct the Proposed Project.

Conclusion

Overall, the ground-level construction noise impacts are not expected to be significant. The noise from helicopters used in construction would be significant and, even with implementation of Mitigation Measure NOI-1 and NOI-2, the impacts would not be reduced to a less-than-significant level. No other feasible mitigation is available to reduce these impacts. Therefore, this impact would be **significant and unavoidable**.

Mitigation Measure NOI-1: General Construction Noise.

HWT and PG&E shall implement the following procedures for all construction activities:

- Public Notice. Noise-sensitive receptors within 600 feet of work areas shall be provided written notice at least 7 days prior to beginning construction to inform them of the scheduled construction activities and potential noise disruptions. The specific types of noise-sensitive receptors to be notified include residences and officials for schools, places of worship, parks, hospitals, theatres, auditoriums, libraries, and commercial/industrial facilities with noise sensitive instruments. The notice shall describe procedures for submitting any noise complaints during construction, including a phone number for submitting such complaints.

- Mufflers and Maintenance. Construction equipment shall be properly equipped with feasible noise control devices (e.g., mufflers) and properly maintained in good working order.

- Idling. Vehicles and equipment shall only idle when necessary and should be shut off when not in use.

- Stationary Equipment. Stationary equipment (i.e., compressors and generators) shall be positioned as far away from sensitive receptors as practicable, and equipped with engine-housing enclosures.

- Sensitive Periods. To the extent practicable, construction activities that have a high likelihood of resulting in a noise nuisance for residents in the vicinity shall not be scheduled during sensitive morning or evening periods (7:00 am to 9:00 am, and 7:00 pm to 10:00 pm), to limit the potential for noise nuisance. Nighttime work between the hours of 10:00 pm and 7:00 am shall not occur, except when electrical clearances are available or when safe completion of a construction procedure is needed.

- Noise Complaints. A Construction Noise Coordinator shall be designated to be responsible for responding to any local complaints about construction noise. The Construction Noise Coordinator shall determine the likely cause of the complaint and ensure that reasonable adjustments in the work activities are made to address the problem, to the extent possible. The phone number for noise complaints shall be clearly posted at key work areas in public locations, such as at the entrances to staging areas. Noise complaints shall be addressed within 1 week. HWT and/or PG&E shall provide monthly reports to the CPUC that include a record of any complaints received with a description of the likely cause and how the complaint was resolved.

Mitigation Measure NOI- 2: Minimize Noise Impacts from Helicopters.

HWT and PG&E shall implement the following procedures for helicopter activities:

- Public Notice. Residences and places of worship (e.g., The Cove) within 1450 feet from any location where helicopter activities may occur, including flight paths if applicable, shall be provided written notice at least 30 days prior to beginning helicopter activities to inform them of the schedule for helicopter use and potential noise disruptions. Methods for receptors to reduce noise in structures shall be included in the notice (i.e., closing doors and windows facing the alignment). The

notice shall describe procedures for submitting any noise complaints during construction and provide a phone number for submitting such complaints, as required by MM NOI-1.

- Flight Paths. Helicopter flight paths shall be planned along routes that would result in the least noise exposure possible to receptors. If helicopter noise complaints are received, work crews will attempt to adjust the flight paths to reduce noise exposure to the complainant, without substantially increasing noise exposure to other receptors.

- Helicopter Hovering. Light/medium lift helicopters shall not operate closer than 200 feet from any receptors unless actively working at pole locations along the alignment. Helicopters may operate closer than these distances if all affected receptors agree in writing to a shorter distance. Prior to reducing the minimum distance from receptors, PG&E shall provide the CPUC with the names, contact information, and written agreements for all affected persons within the applicable distances. The written agreements shall clearly identify the anticipated helicopter noise levels, daily schedule, and duration of helicopter activities in the vicinity.

- Helicopter Landing Zones. Helicopter landing zones within staging areas shall be positioned as far as possible from receptors. Helicopter landing zones shall not be positioned closer than 1,450 feet from any receptor. Helicopters may land closer than these distances if all affected receptors agree in writing to allow a shorter distance.

Operation and Maintenance

No local land use plans, policies, or regulations requiring discretionary approval would apply to the Proposed Project because, pursuant to GO 131-D, the CPUC has sole and exclusive jurisdiction over the siting and design of such facilities. Additionally, as described in Appendix A, the San Luis Obispo County Noise Ordinance exempts the type of work proposed for this project. The City of Paso Robles exempts the maintenance activity which would be considered construction. Consequently, the Project would not conflict with any applicable standards established in the local general plans and noise ordinances.

As described in the PEA (NEET West and PG&E 2017), the main source of noise at the Estrella Substation during operation would be the stationary electrical equipment. Specifically, the 230/70 kV transformer and the HVAC units at each control building would be the loudest pieces of noise-generating equipment at the substation. Transformer noise generally contains a pure-tone or “hum” component, as well as noise associated with cooling fans and oil pumps that operate periodically. Table 4.13-6 shows the anticipated noise levels associated with equipment at the substation.

Table 4.13-6. Estimated Estrella Substation Equipment Noise Levels

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

Notes:

HVAC = Heating, ventilation, and air conditioning; L_{eq} = Equivalent sound level; dBA = A-weighted decibel

[1.] This is the sound level for the source at the nearest residence.

Source: NEET West and PG&E 2017

As shown in Table 4.13-6, the noise from the equipment at the Estrella Substation would attenuate relatively rapidly with increasing distance from the substation. The 230/70 kV transformer would be located approximately 932 feet from the nearest residence, which would experience noise levels at 29.1 dBA (NEET West and PG&E 2017). When combining the transformer noise with the other noise sources at the substation, this equates to 32.0 dBA at the location of the nearest residence (NEET West and PG&E 2017). Further, when considering the existing baseline noise at the nearest residence to the Estrella Substation site (see Table 4.13-3), operation of the substation would result in an increase of 0.1 dBA in the daytime ambient noise and 0.2 dBA in the nighttime ambient noise at this location (NEET West and PG&E 2017).

Given that a 3 dB change in sound level is considered to be barely noticeable, this slight increase in ambient noise would not be significant. Additionally, although the modeled nighttime ambient noise level at Location 1 (nearest residence to the substation) of 45.7 dBA (NEET West and PG&E 2017) would exceed the County of San Luis Obispo's nighttime hourly exterior noise standard of 45 dB, the ambient noise at this location already exceeds the County's noise standard under existing conditions (see Table 4.13-3). Despite this standard, the County's General Plan Noise Element and noise ordinance provide for an exception for noise from the County's existing electrical substations and allows a higher nighttime standard of 50 dB (see

Appendix A). Therefore, the operational noise from the equipment at the Estrella Substation would not be significant.

The Proposed Project's 70 kV power line would not have any moving parts and thus would not include equipment that would generate mechanical noise. As described in Section 4.13.2, transmission lines can sometimes generate corona noise, which is produced when the localized electric field near an energized conductor is sufficiently concentrated such as to produce a tiny electric discharge that can ionize air close to the conductors. Transmission lines can generate a small amount of sound energy during corona activity, which is increased during wet weather conditions. Corona noise from the Proposed Project's 70 kV power line was a concern raised during the scoping period by several commenters. However, 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 (NEET West and PG&E 2017). Therefore, any noise generated during operation of the 70 kV power line should not be substantial.

Other operation and maintenance-related activities associated with the Proposed Project would generate minor and infrequent noise. As described in Chapter 2, *Project Description*, monthly inspections would be performed at the Estrella Substation and annual inspections would be performed on the power line. Maintenance and repairs of the Proposed Project facilities and equipment would be conducted on an as-needed basis. Noise from these activities would primarily be related to vehicles used to access the substation or power line for inspections or maintenance as well as any equipment that could be used to conduct needed repairs or maintenance, and helicopters that may be used during inspections of the power line. Given the infrequent nature of these activities, the noise impacts would be less than significant. Overall, the operational noise impacts from the Proposed Project would be **less than significant.**

Impact NOISE-2: Generation of excessive ground-borne vibration or ground-borne noise levels – *Less than Significant*

Excessive ground-borne vibration or ground-borne noise levels are considered to be vibration that may result in cosmetic or structural damage to a nearby sensitive receptors. The CPUC does not have a specific vibration threshold for cosmetic or structural damage; FTA standards were used because equipment analyzed by FTA would be similar to equipment used for construction of the Proposed Project. Ground-borne vibration and noise could occur during construction of the Proposed Project due to use of earth-moving equipment. Blasting or pile-driving activities are not anticipated to be necessary during construction of the Estrella Substation and 70 kV power line. Under CEQA, excessive ground-borne vibration or noise levels would be that which may result in substantial annoyance or in cosmetic or structural damage to a nearby sensitive receptors. As described in Section 4.13.2, the FTA guidelines use an annoyance threshold of 80 VdB for infrequent events (fewer than 30 vibration events per day) and a damage threshold of 0.2 in/sec PPV for non-engineered timber and masonry structures (FTA 2018). Table 4.13-7 shows estimated vibration levels from Proposed Project construction in relation to the FTA thresholds, as calculated using the equations provided in "Methodology" above.

Table 4.13-7. Estimated Ground-borne Vibration from Proposed Project Construction Equipment

Equipment	Ground-Borne Vibration at 25 feet (inches/second)	Distance to FTA Structural Damage Threshold of 0.2 inches/second (feet)	Ground-Borne Vibration at 25 feet (VdB)	Distance to FTA Annoyance Threshold of 80 VdB (feet)
Vibratory Roller[1, 2]	0.21	25.8	94.0	73.2
Bulldozer or Drilling	0.09	14.6	87.0	42.8

Notes:

FTA = Federal Transit Administration; VdB = vibration velocity in decibels

1. This equipment would only be used for construction of the Estrella Substation.
2. The analysis assumed that the equipment with the greatest vibration potential would have vibration sound levels similar to those of a vibratory roller.

Source: FTA 2006

As shown in Table 4.13-7, use of certain equipment during construction of the Estrella Substation would create ground-borne vibration that would exceed FTA's recommended thresholds in close proximity to the activities. At 25 feet, the vibratory roller, which is conservatively assumed to be representative of the most vibration-inducing equipment used in construction of the substation, would generate a PPV of 0.21 inches/second, or 94.0 VdB. The vibration from this piece of equipment would attenuate to the level of the FTA threshold for damage to buildings at 25.8 feet, and the FTA threshold for annoyance at 73.2 feet.

Given that there are no buildings within 26 feet of the proposed Estrella Substation site, there would be no potential for existing buildings to be damaged due to the ground-borne vibration associated with construction activities. Likewise, no people would be present within 74 feet of the construction site that could be annoyed due to the activities. Additionally, the vibration from the construction activities would be temporary and would only occur during daytime hours when residents are less sensitive to vibration and less likely to be home. Ground-borne vibration generated during power line construction would generally be less severe than the substation construction, where the majority of the earth-moving activities would occur. While the 70 kV power line construction would involve some grading for site work area preparation and use of a drill for pole installation/construction, these activities would be temporary and the vibration generated would not reasonably affect any nearby structures. Therefore, overall, the impacts from ground-borne vibration would be **less than significant.**

Impact NOISE-3: For a Project Located Within the Vicinity of a Private Airstrip or an Airport Land Use Plan Area, or, Where Such a Plan Has Not Been Adopted, Within 2 Miles Of A Public Airport Or Public-Use Airport, Would The Project Expose People Residing Or Working In The Project Area To Excessive Noise Levels – *Less than Significant.*

Outside of using the Paso Robles Airport as a helicopter landing site, the construction of the Estrella Substation would occur at a distance greater than 2 miles from a public airport. The use of the airport by helicopters is already considered in its airport plan. Once constructed, the Proposed Project would be operated remotely and would only be inspected/maintained on an infrequent basis. As such, even if located within close proximity to the Paso Robles Municipal Airport and within the 55 dBA contour from the ALUP, this would not expose persons to excessive noise associated with the airports and therefore is compatible with the ALUP. Thus, the impacts would **be less than significant.**

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

The reasonably foreseeable distribution components would include: installing a 70/21 kV transformer within the Estrella Substation; constructing approximately 1.6 miles of new distribution line; reconductoring approximately 8 miles of existing distribution line; and installing three additional 21/12 kV pad-mounted transformers (see Chapter 2, *Project Description*). In general, construction/installation of these facilities would be a substantially smaller project than the Proposed Project. Construction of the reasonably foreseeable distribution components would require similar equipment to the Proposed Project construction, but generally the intensity and duration of the activities would be substantially reduced. As such, the activities would generate less noise.

The ultimate buildout of Estrella Substation is projected to include constructing an additional 230 kV interconnection between the 230 kV substation and the adjacent 230 kV transmission line; an additional 230/70 kV transformer with associated breakers and switches; and up to three additional 70/21 kV transformers with associated 70 kV breakers, 21 kV breakers, and switches. Ultimate substation buildout also would support installation of additional distribution feeders and/or 70 kV power lines; however, the routes of these lines are not known and thus any impacts associated with the lines are speculative and not evaluated in this DEIR. Similar to the distribution components, construction/installation of the ultimate substation buildout facilities would be a smaller project than the Proposed Project. Construction for ultimate substation buildout would require similar methods, and therefore similar equipment, to the Proposed Project. Generally, the intensity and duration of the activities is expected to be reduced as compared with the Proposed Project.

As described in Impact NOI-1, construction activities are exempt from the County of San Luis Obispo and City of Paso Robles noise regulations provided that they occur during normal daytime hours. There is one house adjacent to the southern reasonably foreseeable distribution line segment, which would be installed along the existing road through agricultural parcels north of Estrella Substation (see Figure 2-10 in Chapter 2, *Project Description*). It is possible that noise levels at this residence could exceed 90 dBA during the peak construction activities along this portion of the line segment; however, due to the temporary nature of construction, the effects

are not considered significant. Additionally, per Mitigation Measure NOI-1, the Applicants would provide advanced notification to the owner of this residence and other property owners of the scheduled activities. Further, APM NOI-2 and Mitigation Measure NOI-1 would require implementation of practices that minimize construction-related noise, such as mandating feasible noise control devices (e.g., mufflers), prohibiting idling, and avoiding sensitive periods for noise-making equipment and/or worker response to noise complaints. Use of helicopters would not be required for construction of the reasonably foreseeable distribution components. Equipment and facilities associated with ultimate substation buildout would primarily be placed within the fence line of the already-constructed Estrella Substation. Construction of facilities inside the Estrella Substation would not expose the residence to the southwest of the substation site to substantial noise. Sensitive receptors in proximity to the northern reasonably foreseeable distribution line segment (e.g., Hunter Ranch Golf Course) would be subjected to some noise from construction of the reasonably foreseeable distribution components, but this noise (1) would be temporary, (2) would occur during daytime hours, and (3) would occur in an area of high existing ambient noise (i.e., cars and trucks traveling on SR 46).

As described in the PEA, the 70/21 kV transformer would be the primary noise-generating equipment at the Estrella Substation associated with the reasonably foreseeable distribution components. With all fans in operation, the 70/21 kV transformer would generate approximately 64 dBA of noise at 3 feet, with the sound level decreasing as it propagates away from the source due to attenuation (NEET West and PG&E 2017). The 70/21 kV transformer would be located approximately 560 feet from the nearest residence at the south end of Estrella Substation. Even when combining the noise from the 70/21 kV transformer with other substation and ambient noise, there would essentially be no audible increase in noise at this residence. As discussed under Impact NOI-1, although predicted noise in this area would exceed the County's hourly nighttime exterior noise standard, this standard is exceeded under existing conditions and a higher standard is allowed for electrical substations. The additional 70/21 kV transformers installed as part of ultimate substation buildout would generate similar noise, while an additional 230/70 kV transformer would generate noise similar to that described for the Proposed Project (see Impact NOI-1). Therefore, overall, impacts under significance criterion A would be **less than significant.**

Construction of the reasonably foreseeable distribution components would generate some ground-borne vibration associated with grading and minor excavation for installation of new distribution line poles. Installation of the 70/21 kV facilities inside the Estrella Substation would not require any new ground disturbance outside the existing substation fence line. Likewise, ultimate substation buildout would require some ground disturbance for constructing the equipment foundations and substation wiring, but this would primarily occur within the fence line of the already-constructed Estrella Substation (construction of an additional 230 kV interconnection would occur adjacent to the substation). Because construction of the reasonably foreseeable distribution components and ultimate substation buildout is less intensive than the Proposed Project's construction activities, the impacts from ground-borne vibration would not be substantial and would not result in damage to existing structures or annoyance of persons. Operation and maintenance of the reasonably foreseeable distribution components and ultimate substation buildout would be limited to infrequent inspections and as-needed maintenance and repairs by small teams. Otherwise, the distribution components and infrastructure for ultimate substation buildout would be operated remotely. Therefore,

substantial vibration-related impacts would not occur during the operation phase. As a result, impacts under significance criterion B would be **less than significant.**

Portions of the reasonably foreseeable distribution components would be installed within the ALUP area for the Paso Robles Municipal Airport, as shown in Figure 4.11-3 in Section 4.11, "Land Use and Planning." The Estrella Substation would be located outside the ALUP area, and thus ultimate substation buildout activities would take place outside of this area. Once constructed, the reasonably foreseeable distribution components would be operated remotely and would be inspected/maintained on an infrequent basis. As such, these facilities would not expose persons to excessive noise associated with the airports and therefore are compatible with the ALUP. Therefore, impacts under significance criterion C would be **less than significant.**

Alternatives

No Project Alternative

Under the No Project Alternative, no noise impacts would occur. No new substation or new/reconductored power line would be constructed; therefore, there would be no potential for generation of substantial noise during construction or operation. Likewise, no ground-borne vibration or noise would be generated during ground-disturbing activities, nor would people be exposed to significant noise within the vicinity of a private airstrip, public airport, or within an airport land use plan area. As a result, **no impact** would occur under either significance criteria A, B, or C.

Alternative SS-1: Bonel Ranch Substation Site

Alternative SS-1 would have slightly higher potential for noise generation compared to the proposed Estrella Substation because the substation located at the Bonel Ranch site would require a longer 230 kV interconnection and one additional month of construction. Additionally, due to the site's location adjacent to the Estrella River, it is possible that soft/unsuitable soils could be encountered during construction, necessitating greater use of loaded trucks for excavation, off-haul, and/or import of soils than the Proposed Project. Otherwise, construction activities for Alternative SS-1 would be the same as the proposed Estrella Substation with the same potential for noise generation.

As described in Impact NOI-1, construction activities are exempt from the County of San Luis Obispo noise regulations provided that they occur during normal daytime hours. There are no residences or other sensitive receptors in immediate proximity to the Alternative SS-1 site (nearest residences are over 1,000 feet to the northwest and southeast). Thus, ground-level construction activities (e.g., operation of heavy equipment) would not expose sensitive receptors to excessive levels of noise at this substation location. Further, the Applicants would implement APM NOI-2 to limit noise-intensive construction activities to implement construction noise minimization measures. However, construction of Alternative SS-1 would require the use of helicopters, which have potential to generate substantial noise, resulting in a significant impact. Implementation of **Mitigation Measures NOI-1 and NOI-2** would limit construction hours and reduce potential impacts of helicopter-related noise. Nevertheless, given that helicopter activities would occur in close proximity to sensitive receptors located along the 70kV reconductoring segment, impacts would remain significant and unavoidable.

The substation under Alternative SS-1 would include the same equipment as the proposed Estrella Substation and thus would have the same potential to generate noise during the operation phase. Like the Estrella Substation, the 230/70 kV transformer and HVAC units at the 70 kV and 230 kV substations would be the loudest pieces of equipment. The noise from these facilities would be as shown in Table 4.13-6. Because there are no sensitive receptors in immediate proximity to the Alternative SS-1 site, the noise from this substation equipment would not subject any noise-sensitive receptors to excessive noise. As discussed in Impact NOI-1, other operation and maintenance-related activities associated with the substation would generate minor and infrequent noise. Under Alternative SS-1, monthly inspections of the substation would occur (same as the Proposed Project), and maintenance and repairs would be conducted on an as-needed basis. Noise from these activities would primarily be related to vehicles used to access the substation and any equipment that could be used to conduct needed repairs or maintenance. Given the infrequent nature of these activities, the noise impacts from operation would be less than significant. Nevertheless, as discussed above, because construction-related impacts are not able to be mitigated below appropriate levels of significance, impacts under significance criterion A remain **significant and unavoidable.**

Construction of Alternative SS-1 would have the same potential to generate ground-borne vibration as the proposed Estrella Substation. Estimated vibration levels are the same as shown in Table 4.13-7. Because there are no existing structures within 26 feet of the Alternative SS-1 site, there would be no potential for ground-borne vibration from the construction activities to result in damage to structures. Likewise, there are no occupied structures or other sensitive receptors where people could be substantially annoyed from the ground-borne vibration. Operation and maintenance of the substation under Alternative SS-1 would be limited to infrequent inspections and as-needed maintenance and repairs by small teams. Therefore, substantial vibration-related impacts would not occur during the operation phase. As a result, impacts under significance criterion B would be **less than significant.**

While Alternative SS-1 would be outside the ALUP area for the Paso Robles Municipal Airport, the alternative substation site is located roughly 4,000 feet northeast of a private air facility, Bonel Airport. Once constructed, the substation would be operated remotely and would be inspected/maintained on an infrequent basis. As such, this alternative would not expose persons to excessive noise associated with airports. Thus, the impacts under significance criterion C would be **less than significant.**

Alternative PLR-1A: Estrella Route to Estrella Substation

Due to its longer length (approximately 6.5 miles longer) and duration of construction (16 months longer), Alternative PLR-1A would have greater potential for total construction-related noise impacts compared to the Proposed Project's 70 kV power line. However, the Alternative PLR-1A route largely passes through more rural, agricultural areas of San Luis Obispo County (east and north of the Paso Robles Municipal Airport) compared to the Proposed Project's 70 kV power line. Thus, there is reduced potential for construction-related noise to impact sensitive receptors. Apart from its longer length and different geographic route, the 70 kV power line under Alternative PLR-1A would be essentially the same as the Proposed Project and would involve the same construction activities.

As described in Impact NOI-1, construction activities are exempt from the County of San Luis Obispo and City of Paso Robles noise regulations provided that they occur during normal daytime hours. Although the Alternative PLR-1A alignment passes through mostly rural, agricultural areas, there are a number of residences in close proximity to the route, particularly in the area of Tower Road and Jardine Road. Additionally, like the Proposed Project, the reconductoring segment for Alternative PLR-1A would pass close to numerous residences in Paso Robles. As such, ground-level construction activities (e.g., operation of heavy equipment) could expose these sensitive receptors to levels of noise in excess of the FTA's 90 dBA threshold, although these impacts would be temporary for any given receptor. Implementation of APM NOI-2 would limit noise-intensive construction activities through construction noise minimization measures.

Construction of Alternative PLR-1A would require the use of helicopters, which have potential to generate substantial noise. As described in Impact NOI-1, the noise level from helicopters would be above 90 dBA within 1,427 feet of a helicopter landing zone or pole or cable installation site. Likewise, any sensitive receptors along or within 1,304 feet of the flight path would be subject to level flight noise in excess of 90 dBA. Even though these impacts would be temporary and construction noise is permitted under County and City noise regulations, these noise impacts would be considered significant. Implementation of **Mitigation Measures NOI-1 and NOI-2** would reduce the hours of construction and impacts of construction and helicopter-related noise; however, due to the close proximity of helicopter activity to residences along the reconductoring segment for Alternative PLR-1A, even with implementation of Mitigation Measure NOI-1 and NOI-2, these impacts would remain significant.

Like the Proposed Project's 70 kV power line, the 70 kV power line under Alternative PLR-1A would not have any moving parts and thus would not include equipment that would generate mechanical noise. As described in Section 4.13.2, transmission lines can sometimes generate corona noise, but this is generally more noticeable on high-voltage lines, and is not a design issue for power lines rated at 230 kV and lower (NEET West and PG&E 2017). Therefore, any noise generated during operation of the 70 kV power line should not be substantial. Other operation and maintenance-related activities associated with the Alternative PLR-1A 70 kV power line would generate minor and infrequent noise. Under Alternative PLR-1A, annual inspections of the power line would occur (same as the Proposed Project), and maintenance and repairs would be conducted on an as-needed basis. Noise from these activities would primarily be related to vehicles (and helicopters) that could be used to access and inspect the power line, and any equipment that could be used to conduct needed repairs or maintenance. Given the infrequent nature of these activities, the noise impacts would be less than significant. Overall, due to the construction-related noise from helicopter operation, impacts under significance criterion A would be **significant and unavoidable.**

Construction of Alternative PLR-1A would have the same potential to generate ground-borne vibration as the Proposed Project's 70 kV power line. Generally, this vibration would be less than the levels estimated for the Estrella Substation and would not be expected to cause substantial damage to structures or human annoyance. Much of the Alternative PLR-1A alignment passes through agricultural and rural areas where there are few structures and/or sensitive receptors nearby that could be substantially affected by any ground-borne vibration generated by construction of Alternative PLR-1A. Operation and maintenance of the power line under Alternative PLR-1A would be limited to infrequent inspections and as-needed maintenance and

repairs by small teams. Therefore, substantial vibration-related impacts would not occur during the operation phase. As a result, impacts under significance criterion B would be **less than significant.**

Portions of the Alternative PLR-1A alignment are within the ALUP area for the Paso Robles Municipal Airport. Once constructed, the alignment would be operated remotely and would be inspected/maintained on an infrequent basis. As such, this alternative would not expose persons to excessive noise associated with airports. Thus, the impacts under significance criterion C would be **less than significant.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C would be similar in length to Alternative PLR-1A and would require a similarly extended construction duration compared to the Proposed Project's 70 kV power line. As such, the alternative would have the same potential for increased total construction-related noise impacts as Alternative PLR-1A (see above). Like Alternative PLR-1A, however, the Alternative PLR-1C route largely passes through more rural, agricultural areas of San Luis Obispo County (east and north of the Paso Robles Municipal Airport) compared to the Proposed Project's 70 kV power line. Thus, there is reduced potential for construction-related noise to impact sensitive receptors. Apart from its longer length and different geographic route, the 70 kV power line under Alternative PLR-1C would be essentially the same as the Proposed Project and would involve the same construction activities.

As described in Impact NOI-1, construction activities are exempt from the County of San Luis Obispo and City of Paso Robles noise regulations provided that they occur during normal daytime hours. Although the Alternative PLR-1C alignment passes through mostly rural, agricultural areas, there are a number of residences in close proximity to the route, particularly in the area of Tower Road and Jardine Road (use of MRV 1 or 2 would largely avoid these residences). Additionally, like the Proposed Project, the reconductoring segment for Alternative PLR-1C would pass close to numerous residences in Paso Robles. As such, ground-level construction activities (e.g., operation of heavy equipment) could expose these sensitive receptors to levels of noise in excess of the FTA's 90 dBA threshold, although these impacts would be temporary for any given receptor. APM NOI-2 would be implemented to implement construction noise minimization measures.

Construction of Alternative PLR-1C would require the use of helicopters, which have potential to generate substantial noise. As described in Impact NOI-1, the noise level from helicopters would be above 90 dBA within 1,427 feet of a helicopter landing zone or pole or cable installation site. Likewise, any sensitive receptors along or within 1,304 feet of the flight path would be subject to level flight noise in excess of 90 dBA. Even though these impacts would be temporary and construction noise is permitted under County and City noise regulations, these noise impacts would be considered significant. Implementation of **Mitigation Measures NOI-1 and NOI-2** would reduce the impacts of construction and helicopter-related noise; however, due to the close proximity of construction and helicopter activity to residences along the reconductoring segment for Alternative PLR-1C, even with implementation of Mitigation Measure NOI-1 and NOI-2, these impacts would remain significant.

Like the Proposed Project's 70 kV power line, the 70 kV power line under Alternative PLR-1C would not have any moving parts and thus would not include equipment that would generate mechanical noise. As described in Section 4.13.2, transmission lines can sometimes generate corona noise, but this is generally more noticeable on high-voltage lines, and is not a design issue for power lines rated at 230 kV and lower (NEET West and PG&E 2017). Therefore, any noise generated during operation of the 70 kV power line would not be substantial. Other operation and maintenance-related activities associated with the Alternative PLR-1C 70 kV power line would generate minor and infrequent noise. Under Alternative PLR-1C, annual inspections of the power line would occur (same as the Proposed Project), and maintenance and repairs would be conducted on an as-needed basis. Noise from these activities would primarily be related to vehicles (and helicopters) that could be used to access and inspect the power line, and any equipment that could be used to conduct needed repairs or maintenance. Given the infrequent nature of these activities, the noise impacts would be less than significant. Overall, due to the construction-related noise from operation of construction equipment and helicopters, impacts under significance criterion A would be **significant and unavoidable.**

Construction of Alternative PLR-1C would have the same potential to generate ground-borne vibration as the Proposed Project's 70 kV power line. Generally, this vibration would be reduced compared to the levels estimated for the Estrella Substation and would not be expected to cause substantial damage to structures or human annoyance. Much of the Alternative PLR-1C alignment passes through agricultural and rural areas where there are few structures and/or sensitive receptors nearby that could be substantially affected by any ground-borne vibration generated by construction of Alternative PLR-1C. Operation and maintenance of the power line under Alternative PLR-1C would be limited to infrequent inspections and as-needed maintenance and repairs by small teams. Therefore, substantial vibration-related impacts would not occur during the operation phase. As a result, impacts under significance criterion B would be **less than significant.**

Portions of the Alternative PLR-1C alignment are within the ALUP area for the Paso Robles Municipal Airport. Once constructed, the alignment would be operated remotely and would be inspected/maintained on an infrequent basis. As such, this alternative would not expose persons to excessive noise associated with airports. Thus, the impacts under significance criterion C would be **less than significant.**

Alternative PLR-3: Strategic Undergrounding, Options 1 & 2

The construction processes for Alternative PLR-3 would be more involved compared to the same segment of the Proposed Project's overhead 70 kV power line. Undergrounding the power line would require additional excavation compared to overhead line construction and would use some pieces of equipment (e.g., asphalt saw) that generate elevated noise compared to the construction equipment necessary for the Proposed Project. Modeling showed that due to the higher-noise-generating equipment associated with construction of Alternative PLR-3, the combined noise at 50 feet for Alternative PLR-3 construction would reach 91.2 dBA, while sensitive receptors within 57.4 feet of the alignment would be exposed to noise at or above the FTA threshold of 90 dBA. Sensitive receptors in proximity to the Alternative PLR-3 alignments include the Cava Robles RV Resort and homes in the Circle B homeowners association.

As described in Impact NOI-1, construction activities are exempt from the County of San Luis Obispo and City of Paso Robles noise regulations provided that they occur during normal daytime hours. Although the Alternative PLR-3 construction activities would generate slightly more noise compared to the same segment of the Proposed Project's overhead 70 kV power line, this noise is permitted by local noise ordinance. APM NOI-2 would implement construction noise minimization measures. Helicopters would not be required for construction of Alternative PLR-3, but would be used in other segments of the 70kV line and at the substation. Implementation of **Mitigation Measures NOI-1 and NOI-2** would reduce the impacts of construction and helicopter related noise; however, due to the close proximity of construction and helicopter activity to residences along the undergrounding segment for Alternative PLR-3, even with implementation of Mitigation Measures NOI-1 and NOI-2, these impacts would remain significant.

Once constructed, the underground power line segment would not generate any noise. Likewise, the transition stations at either end of the underground power line segment would not include transformers, HVAC units, or other equipment that would generate substantial noise. Other operation and maintenance-related activities associated with Alternative PLR-3 would generate minor and infrequent noise. Inspections of the underground power line segment and transition stations would occur on a similar schedule to the Proposed Project, and maintenance and repairs would be conducted on an as-needed basis. Noise from these activities would primarily be related to vehicles used to access and inspect the power line segment, and any equipment that could be used to conduct needed repairs or maintenance. Given the infrequent nature of these activities, the noise impacts would be less than significant. Overall, due to the construction and helicopter-related noise from operation of construction equipment, impacts under significance criterion A would be **significant and unavoidable.**

Construction of Alternative PLR-3 would have slightly elevated potential to generate ground-borne vibration and/or ground-borne noise compared to the same segment of the Proposed Project's overhead 70 kV power line. This is due to the increased excavation and asphalt cutting that would be required for installing the underground power line segment. Given the proximity of existing buildings and sensitive receptors to the construction activities, however, this ground-borne vibration and/or ground-borne noise would not result in substantial damage to buildings or annoyance of persons. Operation and maintenance of the underground power line under Alternative PLR-3 would be limited to infrequent inspections and as-needed maintenance and repairs by small teams. Therefore, substantial vibration-related impacts would not occur during the operation phase. As a result, impacts under significance criterion B would be **less than significant.**

Alternative PLR-3 would be within the ALUP area for the Paso Robles Municipal Airport. Once constructed, the alignment would be operated remotely and would be inspected/maintained on an infrequent basis. As such, this alternative would not expose persons to excessive noise associated with airports. Thus, the impacts under significance criterion C would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

Alternative SE-1A would have slightly higher potential for noise generation compared to the proposed Estrella Substation, as the substation located at the Templeton Substation expansion site would require a longer 230 kV interconnection and one additional month of construction. Otherwise, construction activities for Alternative SE-1A would be the same as the proposed Estrella Substation with the same potential for noise generation.

As described in Impact NOI-1, construction activities are exempt from the County of San Luis Obispo noise regulations provided that they occur during normal daytime hours. There are no residences or other sensitive receptors in immediate proximity to the Alternative SE-1A site (nearest residences are over 1,000 feet to the northwest and southeast); thus, ground-level construction activities (e.g., operation of heavy equipment) would not expose sensitive receptors to excessive levels of noise. Regardless, the Applicants would implement APM NOI-2 to implement construction noise minimization measures. Construction of Alternative SE-1A would require the use of helicopters, which have potential to generate substantial noise. Implementation of **Mitigation Measures NOI-1 and NOI-2** would limit the potential impacts of helicopter-related noise, and given that helicopter activities would not be required in close proximity to any existing sensitive receptors (as opposed to the Proposed Project's 70 kV reconductoring segment), the impacts would be reduced to a level that is less than significant.

The substation under Alternative SE-1A would include the same equipment as the proposed Estrella Substation and thus would have the same potential to generate noise during the operation phase. Like the Estrella Substation, the 230/70 kV transformer and HVAC units at the 70 kV and 230 kV substations would be the loudest pieces of equipment. The noise from these facilities would be the same as shown in Table 4.13-6. Because there are no sensitive receptors in immediate proximity to the Alternative SE-1A site, the noise from this substation equipment would not subject any noise-sensitive receptors to excessive noise. As discussed in Impact NOI-1, other operation and maintenance-related activities associated with the substation would generate minor and infrequent noise. Under Alternative SE-1A, monthly inspections of the substation would occur (same as the Proposed Project), and maintenance and repairs would be conducted on an as-needed basis. Noise from these activities would primarily be related to vehicles used to access the substation and any equipment that could be used to conduct needed repairs or maintenance. Given the infrequent nature of these activities, the noise impacts would be less than significant. Overall, impacts under significance criterion A would be **less than significant with mitigation.**

Construction of Alternative SE-1A would have the same potential to generate ground-borne vibration and/or ground-borne noise as the proposed Estrella Substation. Estimated vibration levels are the same as shown in Table 4.13-7. Because there are no existing structures within 74 feet of the Alternative SE-1A site, there would be no potential for ground-borne vibration from the construction activities to result in damage to structures. Likewise, there are no occupied structures or other sensitive receptors where people could be substantially annoyed from the ground-borne vibration and/or ground-borne noise. Operation and maintenance of the substation under Alternative SE-1A would be limited to infrequent inspections and as-needed maintenance and repairs by small teams. Therefore, substantial vibration-related impacts would not occur during the operation phase. As a result, impacts under significance criterion B would be **less than significant.**

The Alternative SE-1A site is not located within the ALUP area for the Paso Robles Municipal Airport or within 2 miles of any airport. Therefore, **no impact** would occur with regard to significance criterion C.

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Due to its shorter length (4.8 miles shorter) and duration of construction (9 months shorter), Alternative SE-PLR-2 would result in less total construction-related noise impacts than compared to the Proposed Project's 70 kV power line. While Alternative SE-PLR-2 would pass through some rural and agricultural areas, it would also pass through rural residential areas comprising HOAs and dense residential areas within the City of Paso Robles. Thus, there is potential for construction-related noise to impact sensitive receptors. Apart from its shorter length and different geographic route, the 70 kV power line under Alternative SE-PLR-2 would be essentially the same as the Proposed Project and would involve the same construction activities.

As described in Impact NOI-1, construction activities are exempt from the County of San Luis Obispo and City of Paso Robles noise regulations provided that they occur during normal daytime hours. Given the proximity of some sensitive receptors to the proposed Alternative SE-PLR-2 route, ground-level construction activities (e.g., operation of heavy equipment) could expose receptors to levels of noise in excess of the FTA's 90 dBA threshold, although these impacts would be temporary for any given receptor. APM NOI-2 would implement construction noise minimization measures. Given implementation of these measures and the fact that noise attenuates relatively rapidly with distance from the source, the ground-level construction noise from Alternative SE-PLR-2 would not be significant.

Construction of Alternative PLR-1C would require the use of helicopters, which have potential to generate substantial noise. As described in Impact NOI-1, the noise level from helicopters would be above 90 dBA within 1,427 feet of a helicopter landing zone or pole or cable installation site. Likewise, any sensitive receptors along or within 1,304 feet of the flight path would be subject to level flight noise in excess of 90 dBA. Even though these impacts would be temporary and construction noise is permitted under County and City noise regulations, these noise impacts would be considered significant. Implementation of **Mitigation Measures NOI-1 and NOI-2** would reduce the impacts of helicopter-related noise; however, due to the close proximity of helicopter activity to residences along South River Road, even with implementation of Mitigation Measure NOI-1, these impacts would remain significant.

Like the Proposed Project's 70 kV power line, the 70 kV power line under Alternative SE-PLR-2 would not have any moving parts and thus would not include equipment that would generate mechanical noise. As described in Section 4.13.2, transmission lines can sometimes generate corona noise, but this is generally more noticeable on high-voltage lines, and is not a design issue for power lines rated at 230 kV and lower (NEET West and PG&E 2017). Therefore, any noise generated during operation of the 70 kV power line would not be substantial. Other operation and maintenance-related activities associated with the Alternative SE-PLR-2 70 kV power line would generate minor and infrequent noise. Under Alternative SE-PLR-2, annual inspections of the power line would occur (same as the Proposed Project), and maintenance and repairs would be conducted on an as-needed basis. Noise from these activities would primarily be related to vehicles and helicopters that could be used to access and inspect the power line, and any equipment that could be used to conduct needed repairs or maintenance. Given the infrequent nature of these activities, the noise impacts would be less than significant. Overall,

due to the construction-related noise from operation of helicopters, impacts under significance criterion A would be **significant and unavoidable.**

Construction of Alternative SE-PLR-2 would have the same potential to generate ground-borne vibration and/or ground-borne noise as the Proposed Project's 70 kV power line. Generally, this vibration would be reduced compared to the levels estimated for the Estrella Substation and would not be expected to cause substantial damage to structures or human annoyance. Operation and maintenance of the power line under Alternative SE-PLR-2 would be limited to infrequent inspections and as-needed maintenance and repairs by small teams. Therefore, substantial vibration-related impacts would not occur during the operation phase. As a result, impacts under significance criterion B would be **less than significant.**

The Alternative SE-PLR-2 site is not located within the ALUP area for the Paso Robles Municipal Airport or within 2 miles of any airport. Therefore, **no impact** would occur with regard to significance criterion C.

Alternative BS-2: Battery Storage to Address the Distribution Objective

Construction of FTM BESSs under Alternative BS-2 would require use of earth-moving equipment for site preparation, grading, and constructing foundations for the BESS facilities. Additionally, heavy trucks may be used to deliver materials and off-haul soil or wastes, and other noise-generating equipment could be used during construction. As discussed in Section 4.13.4, potential FTM battery storage sites are identified under Alternative BS-2 for illustrative purposes for this DEIR. FTM battery storage facilities could be constructed at the example FTM sites (1 through 8) or at other sites identified in the future. Several of the illustrative FTM sites (1 through 4) are located in densely developed areas of Paso Robles, while other FTM sites (5, 6, and 8) are located in more rural areas of Paso Robles and San Luis Obispo County. FTM Site 7 is located in Atascadero and although it is adjacent to the existing substation, it is close to an existing church.

As described in Impact NOI-1, construction activities are exempt from the County of San Luis Obispo and City of Paso Robles noise regulations provided that they occur during normal daytime hours. For illustrative FTM Site 7 located in the City of Atascadero, the noise regulations also exempt construction activities provided they occur during normal daytime hours, unless an exception is granted. Given the proximity of residences and other sensitive receptors to certain illustrative FTM sites, there is potential for ground-level construction activities to expose these receptors to levels of noise in excess of the FTM threshold of 90 dBA; however, these impacts would be temporary. Construction of Alternative BS-2 would not require the use of helicopters. FTM BESSs under Alternative BS-2 may include HVAC units and other equipment that would generate noise during the operation phase. Such noise could be reduced by placing BESSs within buildings or by installing noise control devices. Other operation and maintenance-related activities associated with the FTM BESSs would generate minor and infrequent noise. Inspections of the BESSs would occur from time to time, and maintenance and repairs would be conducted on an as-needed basis. Noise from these activities would primarily be related to vehicles used to access the BESSs and any equipment that could be used to conduct needed repairs or maintenance.

Construction of FTM BESSs under Alternative BS-2 would have similar (albeit reduced) potential to generate ground-borne vibration and/or ground-borne noise as the proposed Estrella Substation. The FTM BESSs could require equipment similar to a vibratory roller, which could generate vibration levels as shown in Table 4.13-7. In general, this ground-borne vibration would not be expected to cause any substantial damage or annoyance because, as shown in Table 4.13-7, the resulting noise is below the significance threshold for damage. Operation and maintenance of the BESSs under Alternative BS-2 would be limited to infrequent inspections and as-needed maintenance and repairs by small teams.

With the exception of example FTM Site 5, none of the proposed FTM sites would be located within an ALUP or within 2 miles of an airport. FTM Site 5 is located directly adjacent to the CAL FIRE Air Attack Base, which is adjacent to the Paso Robles Municipal Airport. Although the BESS at FTM Site 5 would be located very close to the airport, once constructed, an FTM BESS at this location would be operated remotely and would be inspected/maintained on an infrequent basis.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

Construction activities under Alternative BS-3 would include deliveries of individual BTM solar and BESS units to customers' properties, installation of the units on-site, and wiring work to connect the solar systems and/or BESSs to existing electrical systems. BESS units for larger commercial properties could be heavy and may require larger/specialized trucks for delivery, and may require use of a small crane for installation. These activities would be considerably smaller in scale compared to the Proposed Project. The third-party DER provider selected via the DIDF would be required to follow all local design, siting, and permitting requirements, including compliance with applicable noise-level requirements. Once installed, BESS facilities under Alternative BS-3 would require minimal maintenance. Operational noise would be low, in particular for units installed inside existing facilities and would not result in substantial noise levels during operation.

Construction of individual BTM solar or BESS units would have minimal potential to generate substantial ground-borne vibration or ground-borne noise except if using a pile driver to install solar mounts. Where individual BESSs may be installed on previously undeveloped portions of properties, the light grading and earth-moving activities that may occur would likely not be of the scale to result in substantial vibration or ground-borne noise, but the use of pile drivers (if needed) may exceed vibration thresholds. Operation and maintenance activities would not result in substantial vibration-related impacts.

BTM solar and BESS units may be located within ALUP areas. However, once installed, the individual BTM solar or BESS units would require minimal maintenance and would generate low operational noise.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

4.14 Population and Housing

4.14.1 Introduction

This section presents an overview of population and housing within the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives. For detailed discussion of local laws, regulations, and policies related to population and housing, refer to Appendix A of this DEIR. This section includes an analysis of the potential impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives on population and housing.

4.14.2 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies are applicable to population and housing in relation to the Proposed Project, reasonably foreseeable distribution components, or alternatives.

State Laws, Regulations, and Policies

No state laws, regulations, or policies are applicable to population and housing in relation to the Proposed Project, reasonably foreseeable distribution components, or alternatives.

4.14.3 Environmental Setting

The Proposed Project, reasonably foreseeable distribution components, and alternatives would be located in the northern portion of San Luis Obispo County. The majority of the Proposed Project, including the Estrella Substation, would be located in the unincorporated county, but portions of the Proposed Project's new and reconductored 70 kV power line segments would be located within the city of Paso Robles. The reasonably foreseeable distribution components would be located primarily within the county, except for a portion of the northern new distribution line segment.

Many of the alternatives under consideration would be located entirely or mostly within unincorporated San Luis Obispo County. Alternatives SS-1 and SE-1A are both located entirely in the unincorporated county, while the majority of the lengths of Alternatives PLR-1A, PLR-1C, and SE-PLR-2 are located in the unincorporated county, with small portions located within the city of Paso Robles. Portions of Alternative PLR-3 are located within both unincorporated San Luis Obispo County and the city of Paso Robles. Of the example FTM battery storage sites considered in this DEIR, FTM Sites 1, 2, 3, 4, and 5 are located within the city of Paso Robles, while FTM Sites 6, 7, and 8 are located in unincorporated areas.

In general, the unincorporated areas are less population-dense and developed than the areas within the city limits. The population and housing characteristics of San Luis Obispo County and the city of Paso Robles are discussed further below.

Population

San Luis Obispo County historically has had steady growth, although this growth has slowed in recent decades. In 2010, San Luis Obispo County had a population of 269,637, of which 121,330 (45 percent of the total) was located in unincorporated areas of San Luis Obispo County. The growth rate for the county from 2000 to 2010 was 10 percent, averaging 1 percent per year as a whole, with unincorporated areas averaging approximately 0.3 percent per year (NEET West and PG&E 2017). The population estimate for San Luis Obispo County for 2019 is 283,111, indicating that there has been a 5.0 percent increase in population from April 1, 2010 to July 1, 2019 (U.S. Census Bureau 2020). In 2010, there were 81.7 persons per square mile (U.S. Census Bureau 2020).

The city of Paso Robles's population was 29,793 in 2010. From 2000 to 2010, the city's population increased by 23 percent, with most of the growth occurring east of the Salinas River (NEET West and PG&E 2017). The single largest land use within Paso Robles is residential land, comprising approximately 4,352 acres, or 39 percent of the city's total acreage (NEET West and PG&E 2017).

Housing

According to the U.S. Census Bureau, in 2018, San Luis Obispo County had 122,971 housing units (U.S. Census Bureau 2020), up from 117,315 housing units in 2010 (NEET West and PG&E 2017). San Luis Obispo County issued 1,094 housing building permits in 2019 (U.S., Census Bureau 2020).

In 2010, there were 11,426 housing units in the city of Paso Robles, with a vacancy rate of 5 percent (City of Paso Robles 2014; NEET West and PG&E 2017). 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 (NEET West and PG&E 2017).

There are more than 20 hotels/motels spread throughout the city, as well as more than 30 bed and breakfasts, three RV resorts, and dozens of other vacation rentals. Rental vacancy rates in the city in 2010 were 1.7 percent, while rental vacancy rates in 2013 were approximately 1.6 percent (City of Paso Robles 2014). Seventeen hotels, motels, and boutique hotels were identified within 10 miles of downtown Paso Robles (TripAdvisor 2017).

Workforce

The Proposed Project, reasonably foreseeable distribution components, and alternatives are located within the San Luis Obispo – Paso Robles – Arroyo Grande Metropolitan Statistical Area (MSA), which is a geographic area defined by the California Employment Development Department (EDD). In March 2020, the San Luis Obispo – Paso Robles – Arroyo Grande MSA had a labor force of 121,700 individuals, including a workforce of 8,200 in the Natural Resources, Mining, and Construction and 20,600 in the Trade, Transportation, and Utilities industry sectors (EDD 2020).

4.14.4 Impact Analysis

Methodology

This impact analysis describes the impacts on population and housing that could result from implementation of the Proposed Project, reasonably foreseeable distribution components, and alternatives. Impacts were evaluated qualitatively with respect to the significance criteria below.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, or alternatives would result in a significant impact on population and housing if they would:

A. Induce substantial unplanned population growth in an area, either directly (for example, by proposed new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or

B. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Environmental Impacts

Proposed Project

Impact POP-1: Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). – *Less than Significant*

Construction

During construction, the Proposed Project could result in a small amount of temporary population growth from workers temporarily relocating to the area. As described in Chapter 2, *Project Description,* construction of the Estrella Substation would take approximately 7 months, and completion of the 70 kV power line would take approximately 18 months. At the peak of construction of the respective components, it is estimated that construction of the Estrella Substation would require 12 to 15 workers per day, while construction of the 70 kV power line would require 30 workers per day.

Depending on the type of labor and skills required, these workers would either come from local areas or further locations, requiring them to possibly temporarily relocate to the Paso Robles area for the duration of construction. Workers for the more common development tasks of grading and building foundations for the Estrella Substation and new power line routes are likely to be hired from within San Luis Obispo County. Workers installing the Estrella Substation equipment and the new and reconductored 70 kV power line segments would have specialized skills and may be drawn from either San Luis Obispo County or further away. If local, workers would likely commute from their residences. If living too great a distance to commute, workers would likely stay in temporary lodging (most likely hotels or motels in Paso Robles).

Due to the relatively short-term 18-month construction duration, it is unlikely that non-local workers would take up permanent residence in the area. Given the small amount of construction workers needed for the job, the short-term lodging that may be required for the Proposed Project construction workers is expected to be accommodated by existing units. Therefore, any short-term growth inducement during Proposed Project construction would be **less than significant**.

Operation

Once constructed, the proposed Estrella Substation and 70 kV power line components would operate remotely and would not require any permanent staff on-site. The Proposed Project facilities would be inspected periodically (the substation would be inspected monthly, while the 70 kV power line would be inspected annually), with any necessary repairs or maintenance conducted on an as-needed basis. This work would most likely be performed by a small crew of one to two technicians and personnel provided by the equipment vendor.

The Proposed Project would not include any new homes or businesses; therefore, it would not directly induce any substantial population growth. The Proposed Project, on its own, would not extend electric distribution infrastructure to new areas, such as to potentially indirectly induce population growth. However, the Proposed Project with buildout of the reasonably foreseeable distribution components (see further discussion below) would expand electrical distribution service capacity to accommodate future anticipated growth in the Paso Robles Distribution Planning Area (DPA). The Proposed Project need and the Distribution Objective are discussed in detail in Chapter 2, *Project Description.* Following completion of the Proposed Project and buildout of the reasonably foreseeable distribution components, PG&E would be able to more effectively provide electricity to new applications (e.g., new homes and businesses). Without the Proposed Project, it is conceivable that PG&E may not be able to accommodate the level of growth that is anticipated in the DPA. As described in Chapter 2, *Project Description,* and in PEA Appendix G, City of Paso Robles planners expect strong industrial growth to occur north of SR 46 (in particular within the Golden Hill Industrial Park and directly south of Paso Robles Airport along Dry Creek Road) within the next 10 years, and a resurgence of residential growth south of SR 46 (NEET West and PG&E 2020). Overall, city planners estimate a 50 percent increase in the population of Paso Robles by 2045 (NEET West and PG&E 2020).

While the Proposed Project, with buildout of the reasonably foreseeable distribution components, would serve the new growth anticipated by the city, it would not cause or result in this growth. By accommodating anticipated growth, the Proposed Project and reasonably foreseeable distribution components would support achievement of the overall goal in the County of San Luis Obispo General Plan Housing Element to "achieve an adequate supply of safe and decent housing that is affordable to all residents of San Luis Obispo County," as well as Policy HE 1.12, which seeks to "reduce infrastructure constraints for development of housing to the extent possible…." The Proposed Project and reasonably foreseeable distribution components also would be consistent with the City of Paso Robles General Plan Housing Element (see Appendix A) and Land Use Map, which identifies industrial land use areas north of SR 46 near the airport and residential use areas south of SR 46 (e.g., North Chandler Ranch Specific Plan to include 879 dwellings). Overall, the Proposed Project and reasonably foreseeable distribution components would not substantially change the rural, agricultural atmosphere of the greater Paso Robles planning area, which is consistent with the intent of the Housing Element. Therefore, this impact would be **less than significant**.

Impact POP-2: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. – *Less than Significant*

There are no houses or people currently residing on the proposed Estrella Substation site, and no houses would require demolition or removal for construction of the 70 kV power line. The Proposed Project would require acquisition of property and easements by the Applicants at the substation site and along the length of the new power line, but these easements would not require that any structures be removed or any people be relocated. Construction of the Proposed Project may require some individuals to temporarily leave their homes to ensure their safety during helicopter operations, but these individuals would not be permanently displaced and replacement housing would not be required to be constructed. As such, this impact would be **less than significant.**

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

Construction of the reasonably foreseeable distribution components would take approximately 19 weeks and would require up to 12 workers per day (see Table 2-10 in Chapter 2, *Project Description*). For the reasons discussed above under Impact POP-1, this number of workers could be accommodated by the temporary lodging within the Paso Robles area. Given the short construction duration (less than 5 months), it is unlikely that workers not sourced locally would permanently relocate to the area. As described in Chapter 2, ultimate buildout of the Estrella Substation would follow a similar construction process to that described for the Proposed Project and, therefore, is expected to extend over similar construction durations and require similar numbers of workers for installation, testing, and commissioning of additional equipment (e.g., transformer, breakers, switches, etc.) within the 230 and 70 kV substations. As discussed under Impact POP-1, buildout of the Proposed Project and reasonably foreseeable distribution components would accommodate anticipated growth in the Paso Robles area, but would not cause the growth or be inconsistent with the San Luis Obispo County and City of Paso Robles General Plan Housing Elements. Similarly, ultimate buildout of the Estrella Substation could further support possible growth in the Paso Robles area into the future; however, it would not directly cause this growth. Therefore, impacts under significance criterion A would be **less than significant.**

The reasonably foreseeable distribution components would be installed primarily along existing roads in agricultural areas and/or along SR 46. Ultimate buildout of Estrella Substation would involve facilities located primarily within the existing Estrella Substation site (additional distribution feeders and 70 kV power lines that could be supported through ultimate buildout are speculative as routes are unknown at this time). No existing housing is located in areas which could be displaced by the reasonably foreseeable distribution components, and the ultimate buildout of the substation would not displace housing or people. Therefore, **no impact** would occur under significance criterion B.

Alternatives

No Project Alternative

Under the No Project Alternative, no new substation or new/reconductored power line would be constructed. Therefore, no construction workers would temporarily or permanently relocate to the Paso Robles area and there would be no potential for inducement of substantial unplanned population growth. Population growth, as anticipated by city planners, would still likely occur in the Paso Robles area; however, this growth would be less easily accommodated by PG&E without the Proposed Project. Given that the No Project Alternative would not involve construction of any new facilities relative to baseline conditions, there would be no potential to displace substantial numbers of people or housing. Therefore, **no impact** would occur under significance criteria A and B.

Alternative SS-1: Bonel Ranch Substation Site

Construction of Alternative SS-1 would take slightly longer (approximately 1 month longer for construction of the 230 kV interconnection) than the proposed Estrella Substation, but would require the same number of construction workers. As such, this alternative would have similar potential to temporarily induce a small amount of population growth from workers potentially relocating to the area for the duration of the construction period. Alternative SS-1 would provide the same electric distribution capacity benefits to the Paso Robles area as described above for the Proposed Project under Impact POP-1. Like the Proposed Project, Alternative SS-1 would accommodate the anticipated growth in Paso Robles, although it would not cause this growth. Therefore, impacts under significance criterion A would be **less than significant.**

No homes are located on the 15-acre portion of the Bonel Ranch parcel; therefore, no people or housing would be directly displaced by construction of the alternative. As such, **no impact** would occur under significance criterion B.

Alternative PLR-1A: Estrella Route to Estrella Substation

Due to the increased length of Alternative PLR-1A compared to the proposed 70 kV power line route, it would require a substantially longer construction schedule (16 months longer than the proposed 70 kV power line's 18-month construction schedule). However, the daily number of required construction workers is expected to remain the same (30). As described in Section 4.14.3, there are more than 20 hotels/motels spread throughout the city and a 5 percent vacancy rate in permanent housing resources in the city. These units would be expected to accommodate the out-of-area construction workers temporarily during the construction period, as well as any workers that could permanently relocate to the area. Alternative PLR-1A would serve the same function as the proposed 70 kV power line and, when paired with the Estrella Substation, would accommodate the anticipated population growth in the Paso Robles area (see discussion under Impact POP-1). Overall, impacts under significance criterion A would be **less than significant.**

No existing houses or structures would require removal or relocation, and no houses or people would be permanently displaced under Alternative PLR-1A. However, construction activities could temporarily affect some existing homes and structures along the proposed route (impacts would be similar to those for the Proposed Project, as discussed under Impact POP-2). As the

construction effects would be temporary, impacts under significance criterion B would be **less than significant.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C would be similar in length to Alternative PLR-1A and would require a similarly extended construction duration compared to the Proposed Project. Despite the extended construction schedule, construction of Alternative PLR-1C would require the same daily number of construction workers (30) as the proposed 70 kV power line. The 20 hotels/motels located in the city would be expected to accommodate any non-local construction workers temporarily during the construction period. Even if some workers were to permanently relocate, the 5 percent vacancy rate in existing housing units in Paso Robles would provide housing opportunities to the construction workers. Due to the small number of workers needed for the job, this would not result in substantial population growth. Alternative PLR-1C would serve the same function as the proposed 70 kV power line and, when paired with Alternative SS-1, would accommodate the anticipated growth in the Paso Robles area (see Impact POP-1 for detailed discussion). Overall, impacts under significance criterion A would be **less than significant**.

No existing houses or structures would require removal or relocation, and no houses or people would be permanently displaced, for Alternative PLR-1C. However, construction activities could temporarily affect some existing homes and structures along the proposed route (impacts would be similar to those for the Proposed Project, as discussed under Impact POP-2). As the construction effects would be temporary, impacts under significance criterion B would be **less than significant.**

Alternative PLR-3: Strategic Undergrounding (Option 1 & 2)

Alternative PLR-3 would involve an extended construction schedule for this segment of power line compared to building the line overhead (i.e., Proposed Project), but would require a similar or reduced number of daily construction workers (six or fewer depending on construction phase). As discussed under Impact POP-1 for the Proposed Project, construction workers sourced from non-local areas would be accommodated by the 20 hotels/motels located throughout the city. Additionally, should any workers decide to permanently relocate, the 5 percent vacancy rate in existing housing units would provide housing opportunities for these individuals. Even if they were to permanently relocate to the area, the small construction workforce needed for Alternative PLR-3 would not result in substantial population growth. Once installed, the underground 70 kV power line segment would function the same as the proposed 70 kV power line and would allow electricity from the Estrella Substation to be transmitted to Paso Robles Substation. Therefore, it would accommodate future anticipated population growth in the same manner as the Proposed Project (see Impact POP-1 for detailed discussion). Overall, impacts under significance criterion A would be **less than significant.**

Alternative PLR-3 would be installed largely within existing roadways, as well as other undeveloped areas, and would not require permanent displacement of any houses or people. Construction activities may temporarily impact some existing structures located north of Lake Place at the northern end of the Alternative PLR-3 alignments (Option 1 & 2), but these impacts would not be permanent, lasting only for the duration of the construction period. Therefore, impacts under significance criterion B would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – New 230/70 kV Substation

Alternative SE-1A would require a moderately extended construction duration (1 month longer) compared to the proposed Estrella Substation due to the longer length of the 230kV interconnection. The number of construction workers would remain the same, and the non-local workers would not be expected to permanently relocate to the Paso Robles area. As discussed above, existing temporary and permanent housing units are adequate to accommodate the construction workers for the duration of the construction period, as well as any construction workers that would choose to permanently relocate to the area. Given the small construction workforce (up to 15 workers per day), this would not result in substantial population growth. Alternative SE-1A would provide the same function as the proposed Estrella Substation in terms of increasing transmission system resiliency and potentially providing increased distribution capacity, such as to accommodate the future anticipated growth (see Impact POP-1 for detailed discussion). Overall, impacts under significance criterion A would be **less than significant.**

Construction of Alternative SE-1A would temporarily impact an agricultural structure on the periphery of the site, but would not permanently displace any housing or people. Therefore, impacts under significance criterion B would be **less than significant**.

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Due to its shorter length, Alternative SE-PLR-2 would have a shorter construction duration (approximately 9 months shorter) compared to the proposed 70 kV power line. Construction of Alternative SE-PLR-2 would require the same daily number of workers (30) as the proposed 70 kV power line. As discussed above, the 20 hotels/motels located in the city would be expected to accommodate any non-local construction workers temporarily during the construction period. Even if some workers were to permanently relocate, the 5 percent vacancy rate in existing housing units in Paso Robles would provide housing opportunities to the construction workers. Due to the small number of workers needed for the job, this would not result in substantial population growth. Alternative SE-PLR-2, which would only be implemented in parallel with Alternative SE-1A, could provide the same functions as the Proposed Project in terms of accommodating future anticipated population growth in the Paso Robles area (see Impact POP-1 for detailed discussion). Overall, impacts under significance criterion A would be **less than significant.**

Alternative SE-PLR-2 would not require removal or demolition of any existing housing, or permanent displacement of any housing or people. Construction activities could temporarily impact some existing homes and structures similar to the Proposed Project 70 kV power line (see discussion under Impact POP-2). As these construction effects would be temporary, impacts under significance criterion B would be **less than significant**.

Alternative BS-2: Battery Storage to Address the Distribution Objective

Construction of FTM BESSs under Alternative BS-2 would likely require a relatively modest number of workers (likely no more than the 12 to 15 workers), many of whom may be employed from local areas. As discussed above, the 20 hotels/motels located throughout the city of Paso Robles would reasonably accommodate the temporary construction workforce from non-local areas. Further, should any construction workers permanently relocate to the area, housing units are available. Given the small number of workers likely to be needed for construction, even if workers were to permanently relocate to the area, this would not result in substantial

population growth. Functionally, Alternative BS-2 would accomplish similar objectives to the Proposed Project, as it would enable the distribution grid to serve additional capacity. Therefore, it would accommodate future anticipated growth in a similar manner to the Proposed Project (see discussion under Impact POP-1).

For those potential FTM BESS sites that are evaluated as part of the DEIR, all FTM sites are vacant (with the exception of existing substations within identified parcels) and installation of BESSs would not require or result in displacement of housing or people.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

Construction of individual BTM solar and storage facilities would require minimal numbers of construction workers, many of whom would likely be local to the area. While specific numbers of construction workers needed for installation of individual BTM facilities are unknown, the small-scale nature of these projects would not reasonably result in substantial population growth due to construction workers potentially relocating to the area. Additionally, as discussed above, existing temporary and permanent housing units are available in the Paso Robles area for any construction workers that may require housing associated with Alternative BS-3. Once installed, BTM facilities would operate unattended and would require relatively infrequent maintenance and repairs; as such, no substantial population growth would occur due to operation and maintenance of these facilities. On a cumulative level, installation of multiple BTM facilities would reduce loading within the Paso Robles area and could thereby avoid conventional distribution system investments (e.g., new distribution feeders). In this respect, Alternative BS-3 would serve a similar function to the Proposed Project in accommodating future anticipated population growth (see Impact POP-1 for detailed discussion).

Given that BTM facilities would be installed at the discretion of individual property owners and would primarily be integrated into existing buildings, no housing or people would be permanently displaced as a result of Alternative BS-3 implementation.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

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4.15 Public Services

4.15.1 Introduction

This section describes the setting and potential impacts on public services that could occur from the Proposed Project, reasonably foreseeable distribution components, and alternatives. Impacts to public services under CEQA are generally related to increased demand for, or use of, public services (e.g., fire protection, police protection, schools, or parks), such as to require construction of new or expanded facilities to maintain acceptable service ratios, response times, or other performance objectives.

4.15.2 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies are applicable to public services in relation to the Proposed Project, reasonably foreseeable distribution components, or alternatives.

State Laws, Regulations, and Policies

No state laws, regulations, or policies relate directly to public services and the Proposed Project, reasonably foreseeable distribution components, or alternatives. Refer to Section 4.9, "Hazards and Hazardous Materials," and Section 4.20, "Wildfire," for discussion of state laws, regulations, and policies related to wildfire prevention.

4.15.3 Environmental Setting

Fire Protection and Emergency Services

Fire protection and emergency services in the Proposed Project, reasonably foreseeable distribution components, and alternatives areas are provided primarily by CAL FIRE (operating as the San Luis Obispo County Fire Department [County Fire Department]) and the Paso Robles Department of Emergency Services. Private ambulance and hospital services also operate in the area. The relative resources, capabilities, and capacity of these respective agencies and service providers are described further below.

California Department of Forestry and Fire Protection / San Luis Obispo County Fire Department

CAL FIRE operates as the County Fire Department through a contract with San Luis Obispo County, and has operated as such 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 (NEET West and PG&E 2017).

The County Fire Department Operations Division provides fire control and suppression, rescue, advanced life support/emergency medical assistance, and hazardous materials mitigation services. Operations Division personnel and equipment are shown in Table 4.15-1.

Table 4.15-1. San Luis Obispo County Fire Department Personnel and Equipment Summary

Personnel	Unit	Equipment	Unit
Unit Chief	1	Staffed Incident Command System (ICS) Type II Engines	14
Deputy Chief	1	Staffed ICS Type III Engines	12
Division Chiefs	5	Medium Rescue Vehicles	2
Battalion Chiefs	12	Squad Vehicles	4
Fire Captains (Medics)	50 (7)	Hazardous Materials Units	1
Engineers (Medics)	34 (8)	Breathing Support Unit	1
Firefighter II (Medics)	5 (3)	Boats	2
Peak Staffing Firefighter I	108	Rescue Water Crafts	3
Off-Peak Firefighter I	15	Staffed ICS Type II Dozers	3
Paid-Call Firefighters	275	Hand Crew Vehicles	12
Reserve Firefighters	20	Staffed Air Attack Plane	1
Lifeguards	25	Staffed ICS Type III Air Tankers	2
Administrative Staff	25	-	-

Notes: ICS = Incident Command System

Source: CAL FIRE 2020

Several County Fire Department stations are located near Paso Robles, each of which could potentially respond to a fire emergency at the Proposed Project, reasonably foreseeable distribution components, or alternatives sites. These fire stations are described below (NEET West and PG&E 2017) and shown in Figure 4.15-1 (with the exception of Station 35):

- **Meridian Fire Station (Station 52)**, located at 4050 Branch Road, on the north side of SR 46 and approximately 2 miles northeast of the Estrella Substation site, 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 incident command system (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.

- **Paso Robles Fire Station (Station 30)**, located at 2510 Ramada Drive, is situated between Paso Robles and Templeton. 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.

- **Las Tablas Fire Station (Station 35)**, located at 275 Cypress Mountain Drive, on the southern edge of Lake Nacimiento, approximately 13 miles west of the City of Paso Robles, only operates each summer during declared fire season. 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. Fire station equipment includes a CAL FIRE ICS Type III four-wheel drive fire engine.

CAL FIRE also operates the Paso Robles Air Attack Base at Paso Robles Municipal Airport. The air base is approximately 3.5 miles northwest of Estrella Substation (it is also adjacent to the example FTM Site 5). 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 (NEET West and PG&E 2017).

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 4.15-1).

City of Paso Robles Department of Fire and Emergency Services

The City of Paso Robles Department of Fire and 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 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 (City of Paso Robles Department of Fire and Emergency Services 2020). The department is currently staffed by 21 shift personnel (6 captains and 15 firefighters), 1 fire chief, 2 battalion chiefs, and 1 secretary (NEET West and PG&E 2017), and consists of three fire stations (refer to Figure 4.15-1):

- **Main Fire Station (Fire Station 1)** is located at 900 Park Street in downtown Paso Robles, west of US 101 and approximately 0.5 mile west of the Proposed Project reconductoring segment.

- **Sherwood Fire Station (Fire Station 2)** is located at 235 Santa Fe Avenue, southeast of the Niblick Road/Creston Road intersection, and approximately 1.3 miles east of Paso Robles Substation and 3.5 miles southwest of Estrella Substation.

- **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.

Additional Emergency Services

As noted above, additional emergency services are provided to the Proposed Project, reasonably foreseeable distribution components, and alternatives areas by ambulance and hospital service providers. 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 (NEET West and PG&E 2017). The nearest hospital services are provided by Twin Cities Community Hospital in Templeton, which is located approximately 8.5 miles southwest of the proposed Estrella Substation site.

Bonel Ranch Substation Site (Alternative SS-1)

CAL FIRE Air Attack Base

FTM Site 5

Airport Fire Station

Meridian Fire Station

Estrella Substation (Proposed)

Paso Robles Substation

Paso Robles Police Dept.

Main Fire Station

FTM Site 4

Sherwood Fire Station

FTM Site 2

FTM Site 1

FTM Site 3

Paso Robles Fire Station

San Luis Obispo County Sheriff's Dept. North Station

Templeton Substation

Templeton Substation Expansion (Alternative SE-1A)

FTM Site 6

Twin Cities Community Hospital

San Miguel Substation

FTM Site 8

FTM Site 7

Atascadero Substation

San Miguel

Inset Map

Main Map

Paso Robles

Atascadero

Inset Map

San Luis Obispo

2859 ft

Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Public Facilities

- Hospital
- Public School
- Law Enforcement Station
- Library or Senior Center
- Fire Station

Source: Paso Robles General Plan 2018, PG&E 2019, SCWA 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.15-1
Public Facilities

Estrella Substation and Paso Robles Area Reinforcement Project

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Police Protection

Police protection or law enforcement services are provided to the Proposed Project, reasonably foreseeable distribution components, and alternatives areas by several state and local agencies. On the state level, the CHP provides traffic law enforcement in the unincorporated areas of San Luis Obispo County and on all freeways within the county. CHP has stations in Templeton and San Luis Obispo. 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 (NEET West and PG&E 2017).

At the local level, the San Luis Obispo County Sheriff's Department provides law enforcement and emergency services in unincorporated areas of the county. The nearest County Sheriff's Department station to the Proposed Project, reasonably foreseeable distribution components, and alternatives sites is the North Station, which is located at 356 Main Street in Templeton, adjacent to US 101. The North Station serves an area of more than 1,900 square miles and is staffed by 30 personnel, including a commander, two sergeants, four senior deputies, a deputy K-9 team, four school resource deputies, a rural crime deputy, two area resident deputies, and two legal clerks (San Luis Obispo County Sheriff's Department 2019). Over the course of 2019, North Station deputies responded to approximately 22,000 calls for service, which was an increase of approximately 700 calls for service in comparison to 2018 (San Luis Obispo County Sheriff's Department 2019).

Within the City of Paso Robles, police protection and law enforcement services are provided by the Paso Robles Police Department, whose headquarters is located at 900 Park Street, on the west side of US 101 near downtown Paso Robles.

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 2017).

The Paso Robles Joint Unified School District (PRJUSD) serves the Paso Robles area, including the area where the Proposed Project, reasonably foreseeable distribution components, and the majority of the alternatives are located. 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. Enrollment in PRJUSD schools generally shows the declining trend in recent years noted above and no capacity issues have been identified for PRJUSD schools (County of San Luis Obispo 2017).

Alternative SE-1A and a portion of the power line alignment under Alternative SE-PLR-2 are located within the Templeton Unified School District (TUSD) service area. TUSD elementary school enrollment has grown gradually over the last 10 years, but remains below the practical capacity of facilities (County of San Luis Obispo 2017). A similar situation exists for Atascadero

Unified School District and San Miguel Joint Union School District, which serve the areas where the example FTM Site 7 and 8 are located, respectively.

Parks

Two primary parks departments or districts manage public parks in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives: San Luis Obispo County Parks and Recreation and the City of Paso Robles Department of Recreation Services.

The San Luis Obispo County Parks and Recreation Department provides roughly 23 parks, three golf courses, and eight Special Places (e.g., natural areas, coastal access and historic facilities) located throughout the county (County of San Luis Obispo 2006). As of 2016, the County provided a total of 12,248 acres of parks, the vast majority of which was made up of regional parks (County of San Luis Obispo 2017). For regional parks, the county provides more than 10 to 15 acres of parkland per 1,000 residents, which is considered adequate. Community parkland is less available on a population-adjusted basis for certain communities (e.g., Templeton, San Miguel), and some capacity issues are noted (County of San Luis Obispo 2017).

The City of Paso Robles Department of Recreation Services manages six neighborhood parks, nine larger parks or recreational facilities, and 12 trails or walking paths located throughout the city (City of Paso Robles Department of Recreation Services 2020). Many of these facilities are located in proximity to the Proposed Project components, although none are located on or adjacent to the Estrella Substation site. For additional information about recreational resources and facilities, including parks, in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and the alternatives, refer to Section 4.16, “Recreation.”

Other Public Facilities

Other public facilities in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives 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 Proposed Project’s 70 kV power line reconductoring segment (and the reconductoring segment for Alternatives PLR-1A and PLR-1C);
- Paso Robles Senior Center, located at 270 Scott Street, approximately 1.5 mile southeast of Paso Robles Substation;
- Paso Robles Municipal Pool, located at 534 28th Street, approximately 0.7 mile west of where the reconductoring segment would cross SR 46; and
- George Stephan Community Center, located at 3050 Park Street, approximately 0.5 mile west of reconductoring segment, west of US 101.

The Paso Robles City Library, Paso Robles Senior Center, Paso Robles Municipal Pool, and George Stephan Community Center are maintained and operated by the Paso Robles Department of Recreation Services.

4.15.4 Impact Analysis

Methodology

Potential impacts on public services were evaluated qualitatively by considering aspects of the Proposed Project, reasonably foreseeable distribution components, and alternatives in light of the CEQA Guidelines Appendix G significance criteria (see below) and the existing regulatory and environmental settings.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeably distribution components, and alternatives would result in a significant impact on public services if they would:

A. 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:

   i. Fire protection
   ii. Police protection
   iii. Schools
   iv. Parks
   v. Other public facilities

Environmental Impacts

Proposed Project

Impact PUB-1: 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 would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for:

i. **Fire protection?** – *Less than Significant*

As described in Section 4.9, "Hazards and Hazardous Materials," and Section 4.20, "Wildfire," the Proposed Project could increase risk of wildfire ignition. Specifically, construction activities involving use of combustion-engine equipment in areas where vegetation is present could provide a spark and potentially ignite a fire. While the Proposed Project components are not located within a VHFHSZ, and the proposed substation and much of the length of the proposed 70 kV power line would be located within irrigated agricultural areas of little fire risk, some portions of the 70 kV power line would pass through areas of ruderal grassland and oak woodland, which could increase fire hazards. Compliance with PRC requirements related to

wildfire safety, as well as California Fire Code requirements, would reduce the wildfire risk from the Proposed Project during construction to a level that is less than significant.

During operation, the new 70 kV power line segment would increase fire risk above baseline conditions, as the electrified power line could potentially ignite nearby vegetation if adequate precautions are not taken. This risk is reduced by the fact that the power line would not pass through a mapped VHFHSZ or HFHSZ. Additionally, compliance with CPUC G.O. 95 requirements related to vegetation clearances for transmission lines would substantially reduce the risk of accidental ignition. PG&E and HWT would also implement their wildfire mitigation plans.[1] The reconductoring segment of the Proposed Project would not meaningfully change fire risk relative to baseline conditions given that there is already an existing 70 kV line in this location. Additionally, the substation site is located within an irrigated agricultural area that would not be considered high fire risk.

Given the above, construction and operation of the Proposed Project is not expected to generate substantial additional calls for service from the County Fire Department or Paso Robles Department of Fire and Emergency Services. Any fire-related call for service generated by the Proposed Project would likely be a one-time event and a continual strain would not be placed on the existing fire protection resources in the area such that there would be a need to construct new facilities. As discussed in Section 4.14, "Population and Housing," the Proposed Project would not directly increase population in the area, as it would not include any housing and no permanent staff would be needed on-site at the Estrella Substation (all Proposed Project components would operate remotely). The Proposed Project would accommodate future anticipated growth, but it would not cause this growth.

Therefore, the Proposed Project would not result in the need for new or altered fire protection facilities, the construction of which could result in adverse physical environmental effects. This impact would be **less than significant.**

ii. **Police protection?** – *Less than Significant with Mitigation*

As discussed in Chapter 2*, Project Description*, the Estrella Substation site would be located off of Union Road in a relatively rural area of San Luis Obispo County. The 70 kV power line route would traverse rural, agricultural areas of San Luis Obispo County, as well as residential areas of Paso Robles. Operation of heavy equipment on public roadways would be required and crossing structure work areas could cause some disturbance to traffic on roadways. If no traffic control measures were implemented during Proposed Project construction, this could potentially result in calls for service from local law enforcement, which could thereby adversely affect the availability of police resources and response times, a significant impact. However, **Mitigation Measure TR-1** would be implemented, which would reduce potential effects on transportation of traffic, including risk of accidents. With implementation of Mitigation Measure TR-1, there is no reason to believe that Proposed Project construction activities would generate substantial traffic-related calls for service from law enforcement. Therefore, impacts on police protection resources and response times would be less than significant.

[1] Refer to Section 4.20, "Wildfire," for further information about the wildfire mitigation plans.

The Proposed Project would not directly or indirectly result in substantial unplanned population growth. Therefore, a substantial increase in demand for police protection services in the Paso Robles area would not occur as a result of the Proposed Project.

As a result, the Proposed Project would not require the construction of new or expanded police protection facilities such as to result in adverse physical environmental effects. This impact would be **less than significant with mitigation.**

iii. **Schools?** – *Less than Significant*

Construction and operation of the Proposed Project would not result in any adverse effects on existing schools and no schools would require removal, modification, or closure to accommodate the Proposed Project components. The Proposed Project would not directly or indirectly result in substantial unplanned population growth such as to place increased demand on school resources. Enrollment in PRJUSD schools has declined in recent years and there are no existing capacity constraints at PRJUSD facilities (County of San Luis Obispo 2017). Therefore, the Proposed Project would not require the construction of new or expanded school facilities, which could result in substantial adverse physical environmental effects. This impact would be **less than significant.**

iv. **Parks?** – *Less than Significant*

No parks are located on or immediately adjacent to the proposed Estrella Substation site. While there are several parks located in proximity to the 70 kV power line route, none of these facilities would be directly impacted by the construction activities for the Proposed Project and no parks would need to be temporarily closed during the construction period. Therefore, no parks or other recreational facilities would be impacted during Proposed Project construction. Over the long term, the Proposed Project would not result in substantial unplanned population growth, and therefore would not increase demand for parks such as to require or result in the need for new or expanded park facilities, the construction of which could cause substantial adverse physical environmental effects. Therefore, this impact would be **less than significant.**

v. **Other Public Facilities?** – *Less than Significant*

For similar reasons to those discussed under previous subsections, the Proposed Project would not require or result in the need to construct new or expanded other public facilities (e.g., hospitals, senior centers, libraries, etc.). The Proposed Project would not directly impact any of these facilities during construction and would not substantially increase unplanned population growth over the long term, such as to place increased demand on these facilities. Therefore, this impact would be **less than significant.**

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

The reasonably foreseeable distribution components would involve similar construction processes to the Proposed Project, albeit on a much smaller scale. The two new distribution line segments would both be installed along existing roads and in areas with relatively minimal fire risk (not in a VHFHSZ or HFHSZ). Like the Proposed Project, installation of the reasonably foreseeable new distribution line segments and additional 21/12 kV pad-mounted transformers would require compliance with the PRC (for activities on brush-covered sites) and the California

Fire Code, which would reduce potential for accidental ignitions during construction and resultant calls for service from fire protection agencies. Once operational, the reasonably foreseeable distribution components would not substantially increase fire risk above baseline conditions and would not require construction of new or expanded fire protection facilities. As noted above, expansion of electric distribution capacity provided by the Proposed Project and reasonably foreseeable distribution components would not cause or result in substantial unplanned population growth, such as to require new or expanded public services.

Components for ultimate substation buildout would be primarily installed within the already-built Estrella Substation fence line (routes for any additional distribution feeders and/or 70 kV power lines that could be established through ultimate substation buildout are unknown at this time and are not evaluated in this DEIR). Thus, ultimate buildout of the Estrella Substation would have limited potential to adversely affect public services or generate calls for services. While ultimate substation buildout could further accommodate future growth in the Paso Robles area, it would not cause this growth. As a result, impacts under significance criterion A, subsection i would be **less than significant.**

Construction of the reasonably foreseeable distribution components and ultimate substation buildout of Estrella Substation would be unlikely to substantially impact traffic flow or otherwise cause or result in conditions that could require a response from law enforcement. However, the northern new distribution line segment would be installed within the SR 46 median, which could result in temporary impacts to this highway. If no traffic control measures were implemented to mitigate these effects, it could cause or contribute to traffic incidents, including accidents, which could require responses from law enforcement personnel. This, in turn, could adversely affect availability of police resources for other service calls and affect response times, resulting in a significant impact. Implementation of **Mitigation Measure TR-1** would reduce potential traffic-related impacts from construction of the reasonably foreseeable distribution components, thereby reducing potential for impacts on police protection resources to a level that is less than significant. Given that ultimate substation buildout activities would take place within the Estrella Substation or immediate area, they would not substantially affect roadways or require implementation of mitigation measures to prevent impacts to public services. Therefore, impacts under significance criterion A, subsection ii would be **less than significant with mitigation.**

The reasonably foreseeable distribution components and ultimate substation buildout would not be located in close proximity to any schools and no schools would be impacted during construction activities. For the reasons noted above, the reasonably foreseeable distribution components would not cause or result in substantial unplanned population growth, which may require new or expanded public facilities, such as schools. Rather, anticipated growth would occur independently of the Proposed Project. Similarly, the reasonably foreseeable distribution components and ultimate buildout of Estrella Substation would not directly affect parks or other public facilities and would not cause substantial population growth such as to result in the need for new public facilities or otherwise affect performance objectives or service ratios for public services. Therefore, impacts under significance criteria A, subsections iii, iv, and v would be **less than significant.**

Alternatives

No Project Alternative

Under the No Project Alternative, no new substation or new and reconductored 70 kV power line segments would be constructed. As such, there would be no potential for construction activities to result in a call for service from the fire department or law enforcement agencies (e.g., due to accidental fire ignition or construction-related traffic incidents). Additionally, the No Project Alternative would not directly or indirectly affect any other public service facilities or require the need for new or expanded public services due to unplanned population growth. Therefore, **no impact** would occur under any of the significance criteria.

Alternative SS-1: Bonel Ranch Substation Site

The Alternative SS-1 site is located in an HFHSZ and thus construction activities for Alternative SS-1 would have elevated potential to cause an accidental ignition and require a response from fire protection agencies relative to the Proposed Project. This risk would be minimized through compliance with PRC and California Fire Code requirements, as well as through **Mitigation Measure HAZ-1**, which would require preparation of a fire prevention and management plan. With implementation of these measures, calls for fire protection service during construction would be unlikely and would not substantially affect public services. Once constructed, the presence of an electrified substation in an HFHSZ would increase fire risk over baseline conditions; however, this risk would be minimized through compliance with G.O. 95 requirements and implementation of Mitigation Measure HAZ-1. Overall, with implementation of these measures, substantial volumes of fire protection service calls would not be expected during construction and operation of the substation at the Bonel Ranch Substation Site, and additional or expanded fire protection facilities would not be needed. Therefore, impacts under significance criterion A, subsection i would be **less than significant with mitigation.**

Construction of Alternative SS-1 would involve operation of some heavy construction equipment within the roadway (Estrella Road) and may require temporary lane or road closures in this area. If no traffic control measures were implemented during these activities, it could cause or contribute to traffic incidents, which could require responses from law enforcement personnel. This, in turn, could adversely affect availability of police resources for other service calls and affect response times, resulting in a significant impact. Implementation of **Mitigation Measure TR-1** would reduce potential traffic-related impacts from construction of Alternative SS-1, thereby reducing potential for impacts on police protection resources to a level that is less than significant. Therefore, impacts under significance criterion A, subsection ii would be **less than significant with mitigation.**

Alternative SS-1 would not be located in close proximity to any schools and no schools would be impacted during construction activities. For the reasons noted above, the expanded electric distribution capacity provided by Alternative SS-1, which would be the same as the Proposed Project, would not cause or result in substantial unplanned population growth, which may require new or expanded public facilities, such as schools. Rather, anticipated growth would occur independently of the Proposed Project or Alternative SS-1. Similarly, Alternative SS-1 would not directly affect parks or other public facilities and would not indirectly impact these facilities or services. Therefore, impacts under significance criteria A, subsection iii, iv, and v would be **less than significant.**

Alternative PLR-1A: Estrella Route to Estrella Substation

Due to the longer length of the Alternative PLR-1A 70 kV route and extended construction duration compared to the Proposed Project, there would be elevated potential for generation of calls for fire protection service during construction. The Alternative PLR-1A route also borders an HFHSZ in two northern locations (refer to Figure 4.9-2 in Section 4.9, "Hazards and Hazardous Materials"), which would increase fire risk during construction of this alternative. Compliance with PRC and California Fire Code requirements and implementation of **Mitigation Measure HAZ-1** would minimize the risk of fire during construction and reduce potential for calls for fire protection service from Alternative PLR-1A. Once constructed, the presence of a new 70 kV power line along the border of an HFHSZ would increase fire risk over baseline conditions; however, this risk would be minimized through compliance with G.O. 95 requirements and implementation of Mitigation Measure HAZ-1. Overall, with implementation of these measures, substantial volumes of fire protection service calls would not be expected during construction or operation of the power line along the Alternative PLR-1A route, and additional or expanded fire protection facilities would not be needed. Therefore, impacts under significance criterion A, subsection i would be **less than significant with mitigation.**

Construction of Alternative PLR-1A would involve operation of some heavy construction equipment within roadways along the alignment and may require temporary lane or road closures in these areas. Construction activities also would involve heavy truck trips to and from the construction site(s), which could impact traffic flow. If no traffic control measures were implemented during these activities, it could cause or contribute to traffic incidents, including accidents, which could require responses from law enforcement personnel. This, in turn, could adversely affect availability of police resources for other service calls and affect response times, resulting in a significant impact. Implementation of **Mitigation Measure TR-1** would reduce potential traffic-related impacts from construction of Alternative PLR-1A, thereby reducing potential for impacts on police protection resources to a level that is less than significant. Therefore, impacts under significance criterion A, subsection ii would be **less than significant with mitigation.**

Alternative PLR-1A would not be located in close proximity to any schools and no schools would be impacted during construction activities. For the reasons noted above, the expanded electric distribution capacity provided by Alternative PLR-1A, which would be the same as the Proposed Project, would not cause or result in substantial unplanned population growth, which may require new or expanded public facilities, such as schools. Rather, anticipated growth would occur independently of the Proposed Project or Alternative PLR-1A. Similarly, Alternative PLR-1A would not directly affect parks or other public facilities and would not indirectly impact these facilities or services. Therefore, impacts under significance criteria A, subsections iii, iv, and v would be **less than significant.**

Alternative PLR-1C: Estrella Route to Bonel Ranch

Alternative PLR-1C would be similar in length to Alternative PLR-1A and would require a similarly extended construction duration; therefore, it would have a similarly elevated potential for generation of calls for fire protection service during construction compared to the Proposed Project. The Alternative PLR-1C route passes through or borders an HFHSZ in multiple locations (refer to Figure 4.9-2 in Section 4.9, "Hazards and Hazardous Materials"), which could increase fire risk during construction of this alternative. In particular, Alternative PLR-1C Minor Route

Variation 1 would traverse the edge of an HFHSZ along the Estrella River corridor. Compliance with PRC and California Fire Code requirements and implementation of **Mitigation Measure HAZ-1** would minimize the risk of fire during construction and reduce potential for calls for fire protection service during construction of Alternative PLR-1C. Once constructed, the presence of a new 70 kV power line through an HFHSZ would increase fire risk over baseline conditions; however, this risk would be minimized through compliance with G.O. 95 requirements and implementation of Mitigation Measure HAZ-1. With implementation of these measures, substantial volumes of fire protection service calls would not be expected during operation of the power line along the Alternative PLR-1C route and additional or expanded fire protection facilities would not be needed. Therefore, impacts under significance criterion A, subsection i would be **less than significant with mitigation.**

Construction of Alternative PLR-1C would involve operation of some heavy construction equipment within roadways along and adjacent to the alignment and may require temporary lane or road closures in these areas. Construction activities also would involve heavy truck trips to and from the construction site(s), which could impact traffic flow. If no traffic control measures were implemented during these activities, it could cause or contribute to traffic incidents, including accidents, which could require responses from law enforcement personnel. This, in turn, could adversely affect availability of police resources for other service calls and affect response times, resulting in a significant impact. Implementation of **Mitigation Measure TR-1** would reduce potential traffic-related impacts from construction of Alternative PLR-1C, thereby reducing potential for impacts on police protection resources to a level that is less than significant. Therefore, impacts under significance criterion A, subsection ii would be **less than significant with mitigation.**

Alternative PLR-1C would not be located in close proximity to any schools and no schools would be impacted during construction activities. For the reasons noted above, the expanded electric distribution capacity provided by Alternative PLR-1C, which would be the same as the Proposed Project, would not cause or result in substantial unplanned population growth, thereby requiring new or expanded public facilities, such as schools. Rather, anticipated growth would occur independently of the Proposed Project or Alternative PLR-1C. Similarly, Alternative PLR-1C would not directly affect parks or other public facilities and would not indirectly impact these facilities or services. Therefore, impacts under significance criteria A, subsections iii, iv, and v would be **less than significant.**

Alternative PLR-3: Strategic Undergrounding (Option 1 & 2)

The risk of accidental fire ignition during construction of Alternative PLR-3 would be roughly similar or slightly elevated compared to the Proposed Project and would not have a significant effect on the need for new public facilities. The Alternative PLR-3 alignment is not located in a VHFHSZ or HFHSZ, although portions of the route include oak woodland and grassland that could be susceptible to fire. Construction of Alternative PLR-3 would involve many of the same activities as the Proposed Project, although trenching and excavation would be required for installation of the underground line. Compliance with PRC (for activities on brush-covered sites) and California Fire Code requirements would reduce the potential for accidental ignitions during construction activities for Alternative PLR-3. Once constructed, the undergrounded portion of the Alternative PLR-3 would pose minimal fire risk, while any fire risk associated with electrified equipment at the transition stations would be minimized through compliance with G.O. 95 vegetation clearance requirements. Given compliance with these existing laws and regulations,

the potential for Alternative PLR-3 to result in calls for fire protection service, thereby potentially adversely affecting resources and response times for other calls (significance criterion A, subsection i), would be **less than significant.**

As described in Chapter 3, *Alternatives Description,* construction of Alternative PLR-3 (both Options 1 and 2) would require extended single lane closures on the roadways included in the alternative alignments (i.e., Germaine Way, Wisteria Lane, Golden Hill Road, Cava Robles RV Resort driveway, and Circle B HOA road). As such, this alternative would have increased potential for traffic-related incidents and associated calls for law enforcement service compared to the Proposed Project, particularly if traffic control measures were not implemented. If law enforcement were called to the Alternative PLR-3 construction site(s) due traffic incidents, this could adversely affect response times for other calls and reduce (temporarily) the police protection resources available in the area, a significant impact. However, **Mitigation Measure TR-1** would be implemented, which would reduce potential traffic impacts from construction activities. With implementation of Mitigation Measure TR-1, Alternative PLR-3 would not generate substantial calls for law enforcement service such as to adversely affect response times or require or result in the need for new police protection facilities. Therefore, impacts under significance criterion A, subsection ii would be **less than significant with mitigation.**

Alternative PLR-3 would not be located in close proximity to any schools and no schools would be impacted during construction activities. For the reasons noted above, the expanded electric distribution capacity provided by Alternative PLR-3, which would be the same as the Proposed Project, would not cause or result in substantial unplanned population growth, thereby requiring new or expanded public facilities, such as schools. Rather, anticipated growth would occur independently of the Proposed Project or Alternative PLR-3. Similarly, Alternative PLR-3 would not directly affect parks or other public facilities and would not indirectly impact these facilities or services. Therefore, impacts under significance criteria A, subsection iii, iv, and v would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – New 230/70 kV Substation

Construction of the new 230/70 kV substation under Alternative SE-1A would involve largely the same activities as the proposed Estrella Substation. Alternative SE-1A is located within a designated HFHSZ, so construction activities for Alternative SE-1A would have increased potential for accidental ignition and fire hazards relative to the Proposed Project. Compliance with PRC and California Fire Code requirements and implementation of **Mitigation Measure HAZ-1** would minimize the risk of fire, and associated calls for fire protection service, during construction. Once constructed, the presence of a new electrified substation in an HFHSZ would increase fire risk over baseline conditions. However, there already exists a 230/70 kV substation immediately adjacent to the Templeton Substation Expansion site, so the additional risk would be incremental. Further, the fire risk would be minimized through compliance with G.O. 95 requirements and implementation of Mitigation Measure HAZ-1. With implementation of these measures, substantial volumes of fire protection service calls would not be expected during operation of the new substation under Alternative SE-1A, and additional or expanded fire protection facilities would not be needed. Therefore, impacts under significance criterion A, subsection i would be **less than significant with mitigation.**

Construction of Alternative SE-1A would involve operation of some heavy construction equipment within El Pomar Drive and may require temporary lane or road closures in this area.

Construction activities also would involve heavy truck trips to and from the construction site, which could impact traffic flow. If traffic control measures were not implemented during these activities, it could cause or contribute to traffic incidents, including accidents, which could require responses from law enforcement personnel. This, in turn, could adversely affect availability of police resources for other service calls and affect response times, resulting in a significant impact. Implementation of **Mitigation Measure TR-1** would reduce potential traffic-related impacts from construction of Alternative SE-1A, thereby reducing potential for impacts on police protection resources to a level that is less than significant. Therefore, impacts under significance criterion A, subsection ii would be **less than significant with mitigation.**

Alternative SE-1A would not be located in close proximity to any schools and no schools would be impacted during construction activities. For the reasons noted above, the expanded electric distribution capacity provided by Alternative SE-1A, which would be essentially the same as the Proposed Project, would not cause or result in substantial unplanned population growth, thereby requiring new or expanded public facilities, such as schools. Rather, anticipated growth would occur independently of the Proposed Project or Alternative SE-1A. Similarly, Alternative SE-1A would not directly affect parks or other public facilities and would not indirectly impact these facilities or services. Therefore, impacts under significance criteria A, subsections iii, iv, and v would be **less than significant.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Alternative SE-PLR-2 is substantially shorter than the proposed 70 kV power line and would require a shorter construction duration; however, the Alternative SE-PLR-2 route passes through a higher fire risk area that is a designated HFHSZ. If construction activities were to result in an accidental ignition of materials along and adjacent to the Alternative SE-PLR-2, this could require a response from the County Fire Department, which would temporarily reduce the fire protection resources available for other calls and could affect response times, a significant impact. Compliance with PRC and California Fire Code requirements, as well as implementation of **Mitigation Measure HAZ-1**, would minimize fire risks during construction activities for Alternative SE-PLR-2 and thus would reduce potential for calls for fire protection service.

Over the long term, the presence of the new 70 kV line in the HFHSZ would increase fire risk over baseline conditions; however, this risk would be mitigated by compliance with CPUC G.O. 95 (vegetation clearance requirements) and implementation of Mitigation Measure HAZ-1. With implementation of these measures, the power line would not be expected to generate substantial calls for service from the County Fire Department or other fire protection agencies and would not require construction of additional fire protection facilities. Therefore, impacts under significance criterion A, subsection i would be **less than significant with mitigation.**

Construction of Alternative SE-PLR-2 would involve operation of some heavy construction equipment within South River Road and other roads along or adjacent to the proposed alignment, and may require temporary lane or road closures in this area. Construction activities also would involve heavy truck trips to and from the construction site, which could impact traffic flow. If traffic control measures were not implemented during these activities, it could cause or contribute to traffic incidents, including accidents, which could require responses from law enforcement personnel. This, in turn, could adversely affect availability of police resources for other service calls and increase response times, resulting in a significant impact. Implementation of **Mitigation Measure TR-1** would reduce potential traffic-related impacts from construction of

Alternative SE-PLR-2, thereby reducing potential for impacts on police protection resources to a level that is less than significant. Therefore, impacts under significance criterion A, subsection ii would be **less than significant with mitigation.**

Alternative SE-PLR-2 would not be located in close proximity to any schools and no schools would be impacted during construction activities. For the reasons noted above, the expanded electric distribution capacity provided by Alternative SE-PLR-2, which would be essentially the same as the Proposed Project, would not cause or result in substantial unplanned population growth, thereby requiring new or expanded public facilities, such as schools. Rather, anticipated growth would occur independently of the Proposed Project or Alternative SE-PLR-2. Similarly, Alternative SE-PLR-2 would not directly affect parks or other public facilities and would not indirectly impact these facilities or services. Therefore, impacts under significance criteria A, subsections iii, iv, and v would be **less than significant.**

Alternative BS-2: Battery Storage to Address the Distribution Objective

Construction of FTM BESSs under Alternative BS-2 would involve use of internal combustion engine equipment, which could potentially provide a spark for fire ignition. Potential for fire risks would be elevated in locations designated as HFHSZ, such as illustrative FTM Sites 6 and 8. Nevertheless, compliance with PRC and California Fire Code requirements would substantially reduce the risk of fire during construction activities, thus reducing potential for any adverse effects on fire protection services.

Once constructed, the presence of FTM BESSs would increase fire risk over baseline conditions. Lithium-ion BESSs, in particular, have elevated fire risk but, when installed properly, the risk can be greatly mitigated. It is assumed that adherence with applicable local laws and regulations for fire safety would reduce potential impacts from BESSs related to fire risk such that substantial volumes of calls for fire protection service during operation of the BESSs would not be expected.

Construction of FTM BESSs could involve operation of some heavy construction equipment within roads along or adjacent to FTM sites, although lane or road closures are not expected to be required for those illustrative FTM sites that were considered for this evaluation. Construction activities also would involve heavy truck trips to and from the construction sites, which could impact traffic flow and/or cause or contribute to traffic incidents. These traffic-related impacts could result in the need for response from law enforcement personnel and/or adversely affect the availability of police resources for other service calls.. It is assumed, however, that encroachment permits would be obtained for any construction activities under Alternative BS-2 that may substantially impact roadways, thereby reducing potential traffic-related impacts and potential for impacts on police protection resources

Of the example FTM BESS sites that have been identified for analysis in the DEIR, FTM Site 4 is the only site located within close proximity to any schools; and generally, schools would not be impacted during construction activities. Illustrative FTM Site 4 is on property owned by the Paso Robles Joint Unified School District and is immediately adjacent to the baseball field at Paso Robles High School. However, construction activities for installation of the BESS on this site would be confined to the immediate site area and would not be expected to impact the school operations. The FTM BESSs under Alternative BS-2 would function to shave peak load in the Paso Robles DPA and along target feeders, thereby freeing up capacity to serve additional demand. In this way, the FTM BESSs would provide similar services as the Proposed Project and

reasonably foreseeable distribution components. The expanded electric distribution capacity provided by Alternative BS-2 would not cause or result in substantial unplanned population growth, thereby requiring new or expanded public facilities, such as schools. Rather, anticipated growth would occur independently of the Proposed Project or Alternative BS-2. Similarly, Alternative BS-2 would not directly affect parks or other public facilities and would not indirectly impact these facilities or services.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

Construction of BTM solar systems and BESSs would pose relatively minimal fire risk given that the majority of BTM facilities would be installed on or within existing buildings. Adherence to California Fire Code requirements for fire safety during construction activities would minimize potential fire risk, thereby reducing the potential for any calls for fire protection service to be placed during construction under Alternative BS-3. For the reasons discussed in Section 4.9, solar systems and BESSs (particularly lithium-ion BESSs) can pose a fire risk once operational, which could potentially result in calls for service from the local fire department(s) over the life of the BTM facilities. Fires caused by BTM solar systems and BESSs requiring responses from the County Fire Department or Paso Robles Department of Fire and Emergency Services could limit the availability of fire protection resources responding to other calls and temporarily impact response times. However, it is assumed that all local laws and regulations would followed in installing BTM facilities, thereby reducing potential impacts..

Given that BTM solar systems and BESSs would be installed on or within existing buildings and would be relatively small-scale (e.g., in comparison to FTM BESSs), their construction is unlikely to impact transportation and traffic, such as to potentially require a response from law enforcement. In particular, installation of residential solar and battery storage facilities would involve localized effects from delivery trucks and construction worker vehicles accessing the premises. Similarly, most commercial and industrial BTM solar and battery storage facilities would not substantially affect roadways or emergency vehicle movement due to deliveries of materials at the site, and none of these projects would require lane or road closures. No other characteristics of the BTM facilities construction or operation would be anticipated to require a response from law enforcement, such as to affect response times, performance objectives or other standards.

Since the locations of individual BTM facilities that may be installed under Alternative BS-3 are unknown, it is unknown whether BTM facilities would be installed at or near schools (although schools would make good candidates for BTM solar systems or BESSs). Regardless, construction/installation of BTM units would not substantially affect schools even if sited on or near school sites. As discussed above, the expanded electric distribution capacity provided cumulatively by BTM facilities under Alternative BS-3 would not cause or result in substantial unplanned population growth, thereby requiring new or expanded public facilities, such as schools. Rather, anticipated growth would occur independently of the Proposed Project or

Alternative BS-3. Similarly, Alternative BS-3 would not directly affect parks or other public facilities and would not indirectly impact these facilities or services.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

4.16 Recreation

4.16.1 Introduction

This section presents an overview of recreational activities in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternative sites. For descriptions of local laws, regulations, policies, and plans related to recreation, see Appendix A of this DEIR. The settings sections are followed by an analysis of the impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives on recreation.

4.16.2 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies are applicable to recreation in relation to the Proposed Project, reasonably foreseeable distribution components, and alternatives.

State Laws, Regulations, and Policies

No state laws, regulations, or policies are applicable to recreation in relation to the Proposed Project, reasonably foreseeable distribution components, and alternatives.

4.16.3 Environmental Setting

Regional Parks and Recreational Resources

The City of 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, shorelines, and deserts trending from north to south. San Luis Obispo County offers a variety of recreational facilities including trails, golf courses, campgrounds, day use areas, and pools. Aquatic activities, including swimming, boating, kayaking, sport fishing, and surfing, are available from beaches on the western ocean shoreline to the inland lakes and rivers. Lake San Antonio and Lake Nacimiento, located to the northwest of Paso Robles, provide swimming and boating opportunities. South of Paso Robles, Santa Margarita Lake and its surrounding open space area provides opportunities for boating, fishing, hiking, equestrian and bicycle use (NEET West and PG&E 2017).

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 Carrizo Plain National Monument is located in southeastern San Luis Obispo County and contains over 200,000 acres of desert plains, offering opportunities for spectacular wildflower viewing, camping, bicycling, birding, hunting, hiking, and horseback riding (NEET West and PG&E 2017). 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 (NEET West and PG&E 2017).

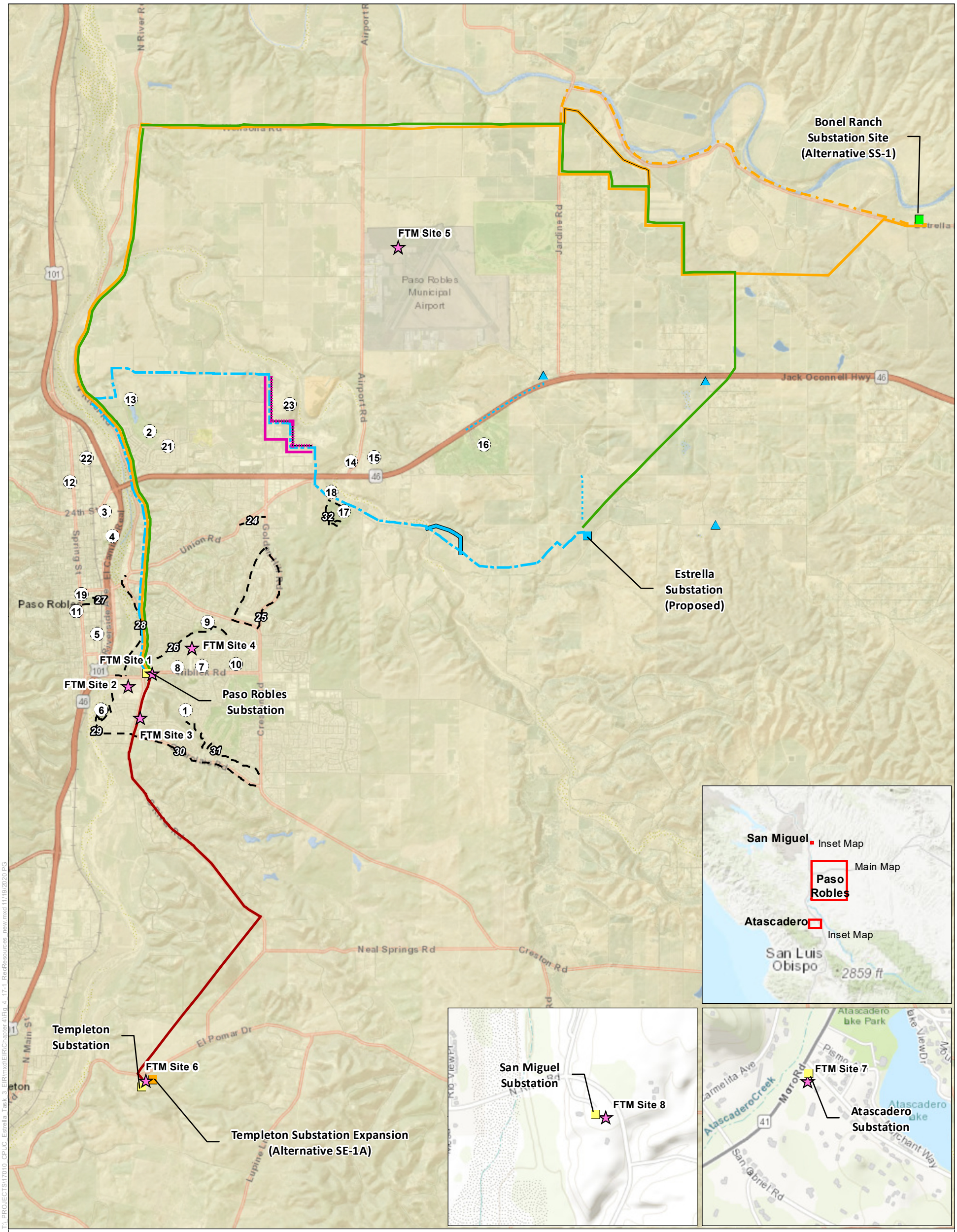
In Paso Robles, there are 96 acres of city parks, the largest of which are Barney Schwartz Park, Centennial Park, Sherwood Park, and Larry Moore Park. The city also maintains and manages 12 designated recreation trails within the city limits, and approximately 31 miles of existing bikeways with nearly 71 miles of planned bikeways. The Salinas River and Huer Huero Creek corridors provide recreational facilities, including equestrian paths and other trails. Recreational services provided by the city also include a municipal pool, a senior center, and activities and classes (NEET West and PG&E 2017).

Parks and Recreational Resources in the Vicinity of the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives

Figure 4.16-1 shows the locations of parks, trails, and other recreational resources in proximity to the Proposed Project, reasonably foreseeable distribution components, and alternatives. Table 4.16-1 further describes the recreational resources that are shown in Figure 4.16-1. As shown in Figure 4.16-1, a number of recreational resources are located in relative proximity to the Proposed Project features, although no parks, trails, or other resources are located on the proposed Estrella Substation site. Several 70 kV poles would be placed on the Paso Robles Sports Club property, but these poles would not displace the on-site recreational facilities.

Among the parks and recreational resources located in proximity to the Proposed Project features, Barney Schwartz Park, located along Union Road, would be within approximately 65 feet of the 70 kV power line alignment. As noted above, the Proposed Project 70 kV power line would pass through the edge of the Paso Robles Sports Club, which is on the north side of Union Road across from Barney Schwartz Park. The Proposed Project's 70 kV power line Minor Route Variation 1 is not near any existing parks or recreational resources. The new 70 kV power line segment also would pass adjacent to the Cava Robles RV Resort in the area of Golden Hill Road. Moving further to the west, the River Oaks Hot Springs Spa on Clubhouse Drive is located approximately 345 feet from the new 70 kV power line segment near where the new 70 kV power line segment would join the existing San Miguel-Paso 70 kV power line to create the reconductoring segment. The Salinas River Parkway Trail, which is a recreational trail segment within the Juan Bautista de Anza National Historic Trail corridor, passes approximately 100 to 300 feet of the reconductoring segment for the Proposed Project (as well as the reconductoring segments for Alternatives PLR-1A and PLR-1C). Additionally, one of the reasonably foreseeable new 21 kV distribution line segments would pass by Hunter Ranch Golf Course along SR 46. None of the reasonably foreseeable additional 21/12 kV pad-mounted transformers are located in proximity to existing parks or recreational resources.

In general, as shown on Figure 4.16-1, relatively few recreational resources are located in close proximity to many of the alternatives (i.e., Alternatives SS-1, PLR-1A, PLR-1C, SE-1A, SE-PLR-2, and the example FTM Sites 5-8 under Alternative BS-2), which are located in largely rural areas of San Luis Obispo County. The Charolais Corridor Trail does cross the Alternative SE-PLR-2 alignment at the intersection of Charolais Road and South River Road. Alternative PLR-3 (both options) would pass by Cava Robles RV Resort along the same route as the proposed 70 kV power line along Golden Hill Road. The example FTM Site 4, in particular, would be located adjacent to the baseball field at Paso Robles High School, while FTM Sites 1-4 would be located in relative proximity to a number of recreational resources in the Paso Robles east of downtown area.



Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Recreation Features

- Recreational Resources*
- Trails**

*Names of recreational resources can be found in Table 4.16-1
**Trails can be found in Table 4.16-1

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0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 4.16-1
Recreational Resources

Source: ESRI 2020. Paso Robles General Plan 2018, PG&E 2019, SCWA 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and
Paso Robles Area Reinforcement Project

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Table 4.16-1. Recreational Resources near the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives

ID #*	Name	Description/Features	Location and Approximate Distance to Proposed Project, Reasonably Foreseeable Distribution Components, or Alternatives
1	Pat Butler Elementary School	Public school sports field.	700 Nicklaus Street. 0.4 mile southeast of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C; 0.3 mile east of Alternative SE-PLR-2.
2	River Oaks Golf Course, Pavilion, and Amphitheater	Private golf course (6-hole). Event venue.	700 Clubhouse Drive. 0.2 mile east of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C.
3	Paso Robles Event Center	Private fairgrounds.	2198 Riverside Avenue. 0.3 mile west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C.
4	Pioneer Park	Public park. Softball field, skate park, basketball court, playground, and picnic area.	2030 Riverside Avenue. 0.3 mile west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C.
5	Robbins Field	Public park. Softball field.	826 7th Street. 0.5 mile west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C.

Notes: kV = kilovolt

* The identification (ID) numbers listed in Table 4.16-1 refer to the numbers listed in Figure 4.16-1 for each recreational resource.

ID #*	Name	Description/Features	Location and Approximate Distance to Proposed Project, Reasonably Foreseeable Distribution Components, or Alternatives
6	Lawrence (Larry) Moore Park	Public park. Playground, barbeque area, playing field.	155 Riverbank Lane. 0.5 mile southwest of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C; 0.3 mile west of Alternative SE-PLR-2; 0.4 mile southwest of FTM Site 2; 0.4 mile west of FTM Site 3.
7	Paso Robles High School field	Public sports field.	801 Niblick Road. 0.5 mile east of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C; 0.5 mile east of Alternative SE-PLR-2; 0.5 mile east of FTM Site 1; adjacent to FTM Site 4.
8	Lenco (Casa Robles) Park	Public mini park.	600 Palomino Lane. 0.3 mile east of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C; 0.3 mile east of Alternative SE-PLR-2; 0.3 mile east of FTM Site 1; 0.2 mile southwest of FTM Site 4.
9	Centennial Park	Public park and recreational center. Sports courts, playground, picnic areas, amphitheater, and community classrooms.	600 Nickerson Drive. 0.6 mile east of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C; 0.3 mile north of FTM Site 4.
10	Melody Park	Public neighborhood park. Playground, basketball court, jogging path.	Access at Melody Drive. 0.8 mile east of the reconductoring segments for the Proposed Project and Alternatives PLR-1A, PLR-1C; 0.8 mile east of Alternative SE-PLR-2; 0.8 mile east of FTM Site 1; 0.4 mile east/southeast of FTM Site 4

Notes: kV = kilovolt

* The identification (ID) numbers listed in Table 4.16-1 refer to the numbers listed in Figure 4.16-1 for each recreational resource.

ID #*	Name	Description/Features	Location and Approximate Distance to Proposed Project, Reasonably Foreseeable Distribution Components, or Alternatives
11	Paso Robles City Library	Public library. Meeting rooms, restrooms.	1000 Spring Street. 0.6 mile west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C.
12	Paso Robles Municipal Pool	Public swimming pool. Restrooms.	530 28th Street. 0.7 mile west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C.
13	River Oaks Hot Springs Spa	Outdoor and indoor mineral spa. Event venue.	800 Clubhouse Drive. 345 feet southeast of the new 70 kV power line segment for the Proposed Project; 0.2 mile east of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C.
14	Ravine Water Park	Water park. Cabana, wave pool, slides, winding river.	2301 Airport Road. 0.3 mile east and northeast of the new 70 kV power line for the Proposed Project; 0.4 mile east of Alternative PLR-3 (both options).
15	Wine Country RV Resort	RV park. Pool, spa, event venue, picnic benches, game room.	2500 Airport Road. 0.5 mile east of the new 70 kV power line segment of the Proposed Project; 0.5 mile east of Alternative PLR-3 (both options).
16	Hunter Ranch Golf Course	Private golf course (18-hole). Restaurant.	4041 E Hwy 46. 0.6 mile north of the new 70 kV power line segment of the Proposed Project; 0.04 mile southwest of the northern reasonably foreseeable new distribution line segment.

Notes: kV = kilovolt

* The identification (ID) numbers listed in Table 4.16-1 refer to the numbers listed in Figure 4.16-1 for each recreational resource.

ID #*	Name	Description/Features	Location and Approximate Distance to Proposed Project, Reasonably Foreseeable Distribution Components, or Alternatives
17	Barney Schwartz Park	Public park. Baseball and soccer fields, picnic areas, playgrounds, fishing lake.	2970 Union Road. 65 feet south of the new 70 kV power line segment of the Proposed Project.
18	Paso Robles Sports Club	Private recreation center. Outdoor garden, pool, tennis courts.	2975 Union Road. Adjacent (to the north) to the new 70 kV power line segment of the Proposed Project.
19	City Park	Public park. Playground, picnic area, lawn, gazebo.	11th and Park Streets. 0.5 mile west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C.
20	Independence and Liberty High School field	Public school sports field.	812 Niblick Road. 0.4 mile east of the reconductoring segments of the Proposed Project and Alternatives PLR-1A and PLR-1C; 0.4 mile east of Alternative SE-PLR-2; 0.4 mile east of FTM Site 1; 0.3 mile south/southeast of FTM Site 4
21	Kermit King Elementary School field	Public school sports field.	700 Schoolhouse Circle. 0.3 mile east of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C.
22	George Stephan Center	Recreation center. Basketball courts, restrooms.	3050 Park Street. 0.5 mile west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C.

Notes: kV = kilovolt

* The identification (ID) numbers listed in Table 4.16-1 refer to the numbers listed in Figure 4.16-1 for each recreational resource.

ID #*	Name	Description/Features	Location and Approximate Distance to Proposed Project, Reasonably Foreseeable Distribution Components, or Alternatives
23	Cava Robles RV Resort	RV park. Pool, spa, market, community center, game room, bistro, wellness center, splash pad, playground, walking trails, picnic area, outdoor bocce ball court and games, dog park.	3800 Golden Hill Road. Adjacent (to the east) to the new 70 kV power line for the Proposed Project; adjacent (to the east) to Alternative PLR-3 (both options).
24	Almendra Court Trail	Public 0.17-mile paved trail.	Access at Crown Hill or Union Road. 0.6 mile southwest of the new 70 kV power line for the Proposed Project; 0.80 mile southwest of Alternative PLR-3 (both options).
25	Water Tank Loop	Roughly 2-mile public paved loop trail.	Access at Creston Road. 0.8 mile southwest of the new 70 kV power line segment of the Proposed Project; 0.9 mile east of the reconductoring segments of the Proposed Project and Alternatives PLR-1A and PLR-1C.
26	Centennial Park Trail	0.92-mile paved trail.	Access trail at Lana Street or Mohawk Court. 0.1 mile east of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C; 0.2 mile northeast of Alternative SE-PLR-2; 0.2 mile east of FTM Site 1; 0.2 mile west and north of FTM Site 4.
27	City Park Loop	0.36-mile flat downtown loop.	11th and Park Streets. 0.5 mile west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C.

Notes: kV = kilovolt

* The identification (ID) numbers listed in Table 4.16-1 refer to the numbers listed in Figure 4.16-1 for each recreational resource.

ID #*	Name	Description/Features	Location and Approximate Distance to Proposed Project, Reasonably Foreseeable Distribution Components, or Alternatives
28	Salinas River Parkway Trail (Juan Bautista de Anza National Historic Trail)	1.6-mile paved (with dirt sections) public trail.	Access at Riverbank cul-de-sac. 100 to 300 feet west of the reconductoring segments of the Proposed Project and Alternatives PLR-1A and PLR-1C; 0.3 mile northwest of Alternative SE-PLR-2; 0.3 mile northwest of FTM Site 1.
29	Larry Moore Park Loop	0.5-mile paved and dirt trail.	155 Riverbank Lane. 0.5 mile southwest of the reconductoring segments for the Proposed Project and Alternatives PLR-1A and PLR-1C; 0.3 mile west of Alternative SE-PLR-2; 0.3 mile southwest of FTM Site 2; 0.4 mile west of FTM Site 3.
30	Charolais Corridor Trail	Public trail. 1.75-mile paved trail.	Access at Charolais Road. 0.6 mile south of the reconductoring segments of the Proposed Project and Alternatives PLR-1A and PLR-1C; crosses Alternative SE-PLR-2 alignment.
31	Snead/Rambouillet Trail	Public trail. 1.28-mile paved/dirt trail.	Access at Snead and Rambouillet Road. 0.6 mile southeast of the reconductoring segments of the Proposed Project and Alternatives PLR-1A and PLR-1C; 0.6 mile southeast of FTM Site 1; 0.5 mile east of Alternative SE-PLR-2.
32	Barney Schwartz Park Loop	0.88mile paved loop trail.	2970 Union Road. 65 feet south of the new 70 kV power line for the Proposed Project.

Notes: kV = kilovolt

* The identification (ID) numbers listed in Table 4.16-1 refer to the numbers listed in Figure 4.16-1 for each recreational resource.

4.16.4 Impact Analysis

Methodology

This impact analysis describes the impacts on recreation associated with implementation of the Proposed Project, reasonably foreseeable distribution components, and alternatives. Impacts were evaluated qualitatively, based on the potential for the facilities and construction activities to affect parks and recreational resources in relation to the significance criteria below.

Criteria for Determining Significance

Based on Appendix G of the State CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in a significant impact on recreation if they would:

A. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or

B. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical impact on the environment.

Environmental Impacts

Proposed Project

Impact REC-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated – *Less than Significant*

Construction

As described in Chapter 2, *Project Description*, peak daily employment during construction of the Estrella Substation would be 15 workers, while peak daily employment for construction of the power line would be roughly 30 workers. Many of these workers are likely to be hired from local areas, although some may travel from outside areas and stay in the Paso Robles area for the duration of the Proposed Project construction. During the construction periods, it is possible that workers may visit nearby recreation areas; however, the use of parks and other recreation facilities by this small, temporary population would be too low to have a substantial impact on existing facilities.

Construction crews also may use Barney Schwartz Park to access water; however, use of the water source would be temporary and would not cause deterioration of park facilities. Additionally, three new poles of the Proposed Project's 70 kV power line would be placed on the Paso Robles Sports Club property along Union Road. The poles would be placed on the portion of the sports club property that is landscaped and would not directly displace any recreational facilities (e.g., tennis courts, pools, fitness center) at the sports club. Construction activities would require establishment of temporary work areas and access routes on the sports club property, but there is sufficient room on the undeveloped portions of the property to set up the work areas so as not to interfere with recreational facilities. While construction activities may

disturb recreational enjoyment at the property due to the noise and activities, these impacts would be short-lived and would not cause substantial physical deterioration of the recreational facilities. Construction activities would not limit public access to the Paso Robles Sports Club.

As noted in Table 4.16-1, the Proposed Project's 70 kV reconductoring segment would be located within 100 feet of the Salinas River Parkway Trail. As such, construction activity for the reconductoring segment would occur in close proximity to the Salinas River Parkway Trail, although this trail would not be directly impacted and access to the trail by the public would not be restricted. Recreational enjoyment of the Salinas River Parkway Trail may be temporarily impacted due to construction noise and activity along this section of the reconductoring segment, but the trail would not be subjected to any physical deterioration (no direct construction effects) or substantial increased use. In a similar vein, helicopter use for construction of the proposed new and reconductored 70 kV power line segments could temporarily disturb recreationists due to noise, but no long-term or physical effects to recreational facilities would occur due to these activities.

The Proposed Project's 70 kV power line would be installed along Golden Hill Road, which is directly adjacent to the Cava Robles RV Resort. Access to the resort is not expected to be impacted by construction, but construction activities during installation of this portion of the 70 kV power line could disturb recreational enjoyment of the Cava Robles RV Resort. No direct physical impacts to the resort would occur. While the construction activity disturbance could potentially cause patrons/recreationists to use other existing recreational resources in the area in lieu of the resort, this disturbance would be temporary and would not be to such a degree as to cause substantial physical deterioration of these recreational facilities.

Overall, impacts to existing parks or recreational facilities from construction of the Proposed Project would be **less than significant.**

Operation

The Proposed Project facilities would all be operated remotely once installed and no permanent staff would work on-site. Operation and maintenance of the Proposed Project components would require periodic (i.e., monthly or yearly) inspections and maintenance would occur on an as-needed basis. Additionally, as described in Section 4.14, "Population and Housing," the Proposed Project would not induce substantial population growth, leading to potentially more demand for recreational resources in the Paso Robles area. As such, the operation phase of the Proposed Project would not result in substantial increased use of existing parks and other recreational facilities. The small number of HWT, PG&E, and/or contractor staff that would conduct inspections and maintenance at the Proposed Project facilities may use nearby recreation areas in the region; however, this small potential increased use would not result in physical deterioration of these facilities.

During Proposed Project operation, crews and equipment may periodically access the new 70 kV power line segment traveling on local roads, or by 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 operation and maintenance activities. In general, maintenance activities would 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 would be temporary in nature and generally limited to a few days out of the year. As such, although operation and maintenance activities occurring near recreational resources could cause temporary disturbance to recreational enjoyment due to noise and associated activity, no substantial physical deterioration of the resources would occur.

Overall, impacts on recreational resources from Proposed Project operation and maintenance activities would be **less than significant.**

Impact REC-2: Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical impact on the environment – *No Impact*

The Proposed Project does not include the construction or expansion of recreational facilities. As discussed in Impact REC-1, the potential use of parks and other recreation facilities resulting from the Proposed Project would be too low to have a substantial impact on existing recreational facilities. Therefore, **no impact** would occur.

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

Only a portion of one of the reasonably foreseeable new distribution line segments would occur near a recreational resource (Hunter Ranch Golf Course). The remainder of the reasonably foreseeable distribution components would not be located in close proximity to any parks or other recreational resources. Given that the reasonably foreseeable new distribution line segment in the area of Hunter Ranch Golf Course would be installed within the road right-of-way, it would not directly affect the golf course. Therefore, it would not require closure of any portion of the golf course or affect its use, potentially resulting in persons using other recreational resources in the Paso Robles area in lieu of the golf course. While the small number of construction workers needed for the reasonably foreseeable distribution components could use parks and recreational resources in Paso Robles during the construction period, this potentially increased use would be temporary and minor and would not result in substantial physical deterioration of these facilities. Ultimate substation buildout components would be primarily located within the already-built Estrella Substation and thus, would have no potential to impact recreational resources. Additional distribution feeders and/or 70 kV power lines that could be established through ultimate buildout of the Estrella Substation, as well as any associated impacts on recreation, are speculative as the routes for these facilities are not known. As a result, impacts under significance criterion A would be **less than significant.**

The reasonably foreseeable distribution components and ultimate substation buildout of Estrella Substation would not include any recreational facilities or involve the expansion of any parks or recreational facilities, the construction of which could have significance environmental impacts. Therefore, **no impact** would occur under significance criterion B.

Alternatives

No Project Alternative

Under the No Project Alternative, no impacts to recreation would occur. No new substation or new/reconductored 70 kV power line would be constructed; therefore, there would be no

potential for construction workers to use area parks and recreational resources or for the Proposed Project construction activities to temporarily disturb recreational uses. As a result, **no impact** would occur under significance criteria A or B.

Alternatives SS-1: Bonel Ranch Substation Site

Similar to construction of the proposed Estrella Substation, construction of Alternative SS-1 would not result in any substantial impacts to recreational facilities. No recreational facilities are located near the Bonel Ranch Substation Site, and thus no recreational facilities would be disturbed or affected by construction activities. While it is possible that construction workers could use regional recreational parks or trails, this would not cause significant impacts (peak daily employment during construction of Alternative SS-1 would be the same as the proposed Estrella Substation). Therefore, impacts under significance criterion A would be **less than significant.**

Alternative SS-1 would not involve any construction or expansion of recreational facilities. Therefore, **no impact** would occur under significance criterion B.

Alternatives PLR-1A: Estrella Route to Estrella Substation

No recreational facilities were identified in immediate proximity to the Alternative PLR-1A route, apart from those along the reconductoring segment, which are the same as those along the Proposed Project's reconductoring segment. Temporary impacts to these recreational resources, including Salinas River Parkway Trail, would be the same as the Proposed Project (see discussion under Impact REC-1). Construction of Alternative PLR-1A would not impact Barney Schwartz Park, the Paso Robles Sports Club, or Cava Robles RV Resort, and in that sense would have reduced recreational impacts compared to the Proposed Project. Any construction workers under Alternative PLR-1A using regional recreational resources would not cause substantial physical deterioration of these existing facilities for the same reasons as stated in the Proposed Project analysis. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative PLR-1A would not involve any direct construction or expansion of recreational facilities. Therefore, **no impact** would occur under significance criterion B.

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

No recreational facilities were identified in immediate proximity to the Alternative PLR-1C route, apart from those along the reconductoring segment of Alternative PLR-1C, which are the same as for the Proposed Project. Temporary impacts to these recreational resources, including Salinas River Parkway Trail, would be the same as for the Proposed Project (see discussion under Impact REC-1). Construction of Alternative PLR-1C would not impact Barney Schwartz Park, the Paso Robles Sports Club, or Cava Robles RV Resort, and in that sense would have reduced recreational impacts compared to the Proposed Project. Any construction workers under Alternative PLR-1C using regional recreational resources would not cause substantial physical deterioration of these existing facilities. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative PLR-1C would not involve any construction or expansion of recreational facilities. Therefore, **no impact** would occur under significance criterion B.

Alternative PLR-3: Strategic Undergrounding (Option 1 & 2)

As described in Chapter 3, *Alternatives Description,* Alternative PLR-3 (both options) would involve undergrounding a portion of the proposed new 70 kV power line through the Golden Hill Road area. Option 1 would follow a slightly different alignment by following Wisteria Lane and then Golden Hill Road, while Option 2 would follow the Proposed Project overhead 70 kV power line alignment. As shown in Figure 4.16-1, several recreational resources are located in relative proximity to the Alternative PLR-3 route options; however, only Cava Robles RV Resort would be located within 0.25 mile (Cava Robles RV Resort is located directly adjacent to the Alternative PLR-3 route options).

Construction activities for Alternative PLR-3 would temporarily impact use and recreational enjoyment of Cava Robles RV Resort, more so than construction of the Proposed Project. Construction of either Alternative PLR-3 route option would involve prolonged single lane closures along Golden Hill Road and the Cava Robles RV Resort driveway, which could hinder ease of access to the resort for the period of construction (lane closures would last 7 to 9 weeks on Golden Hill Road and 3 to 5 weeks on the Cava Robles RV Resort driveway). The potential access impacts would be minimized through implementation of Mitigation Measure TR-1, which would require implementation of traffic control measures (although this mitigation measure is not considered necessary to reduce recreation effects). Additionally, the trenching activities and underground conductor installation for Alternative PLR-3 would be much more involved than the overhead pole installation for the Proposed Project, leading to greater construction-related impacts to the Cava Robles RV Resort under this alternative. The potential for any construction workers under Alternative PLR-3 to use recreational resources in the area would be largely similar to the Proposed Project and, for the same reasons, would not cause substantial physical deterioration of these existing facilities. Overall, impacts under significance criterion A would be **less than significant.**

Alternative PLR-3 would not involve construction or expansion of any recreational facilities. Therefore, **no impact** would occur under significance criterion B.

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

Construction of Alternative SE-1A would not result in any substantial impacts to recreational facilities. No recreational facilities are located near the Templeton Substation Expansion site, and thus no recreational facilities would be disturbed or affected by construction activities. While it is possible that construction workers could use regional recreational parks or trails, this would not cause significant impacts (peak daily employment during construction of Alternative SE-1A would be the same as the proposed Estrella Substation). As a result, impacts under significance criteria A would be **less than significant.**

Alternative SE-1A would not involve construction or expansion of any parks or recreational facilities. Therefore, **no impact** would occur under significance criterion B.

Alternative SE-PLR-2: Templeton-Paso South River Road Route

As shown in Figure 4.16-1, Alternative SE-PLR-2 would extend over Charolais Corridor Trail, which is a paved public trail that crosses South River Road at Charolais Road. Several other recreational resources are located in relative proximity to the alternative alignment, but none are within 0.25 mile. Construction activities would temporarily disturb or disrupt recreational

use of the Charolais Corridor Trail during the period when this portion of the 70 kV power line is being installed in this area. It is possible that the trail may be temporarily closed in this section during installation of the line and other construction activities, which could cause recreationists to use other facilities in the area. While this could increase use of these other area recreational resources, given the relatively short duration of the possible closure (construction of the entire Alternative SE-PLR-2 alignment would take 9 months) and the fact that much of the length of Charolais Corridor Trail would remain unaffected, this is unlikely to result in physical deterioration of any other parks or trails that might see increased use as a result of a Charolais Corridor Trail closure.

The parcel on the south side of Charolais Road would be used as a staging area during construction (see Figure 3-15 in Chapter 3, *Alternatives Description*). This could result in disturbance to recreationists due to noise from construction equipment and trucks entering and exiting the staging area. While the presence of the staging area adjacent to the trail may discourage some individuals from using the trail, thereby causing them to seek to use other parks or trails in the area, the staging area would not prevent access to the Charolais Corridor Trail. The staging area also would not impact the majority of the length of the trail. The number of construction workers under Alternative SE-PLR-2 (peak daily employment would be the same as the proposed 70 kV power line) who may use the Charolais Corridor Trail or other parks and trails in the area would not result in substantial physical deterioration in these facilities. Therefore, impacts under significance criterion A would be **less than significant.**

Alternative SE-PLR-2 would not involve construction or expansion of any parks or recreational facilities. Therefore, **no impact** would occur under significance criterion B.

Alternative BS-2: Battery Storage to Address Distribution Need

As shown in Figure 4.16-1, several of the FTM sites examined for the purposes of this analysis for Alternative BS-2 would be located in proximity to recreational resources, although only the example FTM Site 4 would be located in close proximity (directly adjacent to Paso Robles High School baseball field). Construction activities at an FTM site, such as Site 4, that is in close proximity to recreational resources could disturb users due to noise and other activities. In the case of FTM Site 4, the site would be separated from the baseball field by an existing fence and construction activities would not directly affect use of the field. Generally, the scope of Alternative BS-2 construction activities at FTM sites, such as Site 4, would be reduced as compared to the proposed Estrella Substation and would likely involve fewer workers. While workers at any of the FTM sites may use nearby parks, trails, or other recreational resources, this would not result in substantial physical deterioration of any of these facilities or require the construction of new or expanded facilities. Alternative BS-2 would not be anticipated to involve the construction or expansion of any recreational facilities.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

The specific locations of BTM solar and battery storage facilities are unknown. As described in Chapter 3, *Alternatives Description*, individual BTM solar and storage facilities would likely be installed within existing buildings. It is not anticipated that BTM battery solar and storage facilities would impact any recreational resources because they would be installed within existing buildings. Alternative BS-3 would not increase the use of existing recreational facilities, and no expansion of recreational facilities would occur.

Nevertheless, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

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4.17 Transportation

4.17.1 Introduction

This section summarizes the regulatory and environmental settings related to transportation and presents the impact analysis methodology and thresholds. On this basis, the section evaluates the potential impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives on vehicle traffic operations and other transportation modes during construction, operation, and maintenance activities.

4.17.2 Transportation Terminology

Key terms used in this section to describe transportation are described below.

Arterial roads are roads that provide for mobility within the county and its cities, carrying through-traffic on continuous routes and joining major traffic generators, freeways, expressways, super arterials, and other arterials. Access to abutting private property and intersecting local streets is generally restricted.

Average daily traffic (ADT) is the average number of vehicles that travel through a specific point of a road over a short duration time period (often 7 days or less). It is estimated by dividing the total daily volumes during a specified time period by the number of days in the period (Federal Highway Administration [FHWA] 2018).

Capacity is the maximum sustainable hourly flow rate at which vehicles reasonably can be expected to traverse a point or a lane on a roadway during a given time period, typically 15-minute intervals under prevailing roadway, traffic, and control conditions. It is expressed in vehicles per hour per lane (FHWA 2018).

Capacity utilization is the extent to which a roadway's capacity is being used on a daily basis, measured as the percentage of the roadway's capacity that is used by the average daily traffic (City of Paso Robles 2011).

Class I bikeway is a bike path or multi-use path that provides a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized (San Luis Obispo County 2016).

Class II bikeway is a bike lane that provides 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 (San Luis Obispo County 2016).

Class III bikeway is a bike route that provides a right-of-way on-street or off-street, designated by signs or permanent markings and shared with pedestrians or motorists. Bike routes provide continuity to other bicycle facilities (San Luis Obispo County 2016).

Collector roads are roads that collect and channel traffic to arterials (San Luis Obispo County 2014).

Delay is the additional travel time experienced by a vehicle or traveler that results from the inability to travel at optimal speed, or from stops, due to congestion or traffic control.

Local roads are roads that provide direct access to abutting property and connect with other local roads, collectors, arterials, super arterials, and expressways. Local roads are typically developed as two-lane, undivided roadways and provide access to abutting private property and intersecting streets.

Vehicle miles traveled (VMT) is the total miles traveled by individual vehicles in a specific area (e.g., a route, a functional road classification, or geographic area) over a given period of time. VMT is a method for determining the amount of GHG emissions due to vehicular travel associated with a project, as well as safety, and mobility (FHWA 2018).

4.17.3 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies are applicable to transportation and the Proposed Project, reasonably foreseeable distribution components, and alternatives.

State Laws, Regulations, and Policies

California Department of Transportation

Caltrans manages the state highway system and ramp interchange intersections and also performs rail transportation planning. Caltrans implements the statutes contained in the California Vehicle Code, including those pertaining to licensing, size, weight, and load of vehicles operated on highways; safe operation of vehicles; and the transportation of hazardous materials. The Caltrans District 5 Encroachment Permits Office in San Luis Obispo issues encroachment permits for activities and encroachments within, under, or over the state highway right of way in the San Luis Obispo area. Authority for Caltrans to control encroachments within the state highway right of way is contained in the Streets and Highways Code Section 660 et seq.

Construction in rights of way subject to Caltrans Encroachment Permit requirements typically requires a Traffic Control Plan in compliance with Caltrans' California Manual on Uniform Traffic Control Devices (MUTCD). As part of these requirements, there are provisions for coordination with local emergency services, training for flagman for emergency vehicles traveling through the work zone, temporary lane separators that have sloping sides to facilitate crossover by emergency vehicles, and vehicle storage and staging areas for emergency vehicles. MUTCD requirements also provide for construction work during off-peak hours and flaggers (Caltrans 2014).

Senate Bill 743

Governor Jerry Brown signed SB (SB) 743 on September 27, 2013, which mandated a change in the way that public agencies evaluate transportation impacts of projects under CEQA, focusing on VMT rather than level of service and other delay-based metrics. SB 743 states that new methodologies under CEQA are needed for evaluating transportation impacts that are better able to reduce GHG emissions and traffic-related air pollution, promoting the development of a multimodal transportation system, and providing clean, efficient access to destinations. It further intended to balance the need for level of service standards with the state's need to build infill housing and mixed-use commercial developments within walking distance of mass transit facilities and downtowns or town centers. SB 743 allowed for measurements of transportation impacts that could include VMT, VMT per capita, automobile trip generation rates, or automobile trips generated. Accordingly, SB 743 required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to reflect these changes.

CEQA Guidelines Section 15064.3

In response to SB 743, OPR added Section 15064.3 of the CEQA Guidelines, as part of a comprehensive Guidelines update, adopted by the California Natural Resources Agency in December 2018. Section 15064.3 describes specific considerations for evaluating a project's transportation impacts and identifies VMT as the most appropriate measure to determine the significance of transportation impacts. Section 15064.3 generally states that a project's effect on automobile delay shall not constitute a significant environmental impact under CEQA. The specific criteria for analyzing transportation impacts are provided in Section 15064.3, subdivision (b) of the CEQA Guidelines. In general, SB 743 indicates that the total VMT that exceed an applicable threshold of significance may indicate a significant impact.

Technical Advisory on Evaluating Transportation Impacts in CEQA

In response to SB 743 and the addition of Section 15064.3 to the CEQA Guidelines, OPR adopted the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) in December 2018 to provide technical recommendations on methods for assessing VMT, thresholds of significance, and mitigation measures. The recommendations in the Technical Advisory are intended to provide guidance to agencies and the public for assessing VMT-related transportation impacts under CEQA. Details of the recommended thresholds of significance from the Technical Advisory are provided in Section 4.17.5, below.

4.17.4 Environmental Setting

Vehicle Access

Vehicle access is provided to the Proposed Project, reasonably foreseeable distribution components, and alternatives areas primarily by regional highways, local arterials, and local collector roads, as described below. Figure 4.17-1 shows these roadways in relation to the Proposed Project, reasonably foreseeable distribution components, and alternatives.

Regional Highways

U.S. Highway 101 (US 101) is a central feature of the transportation system in the Paso Robles area. Access to this highway is important to local businesses, which are concentrated along the US 101 corridor. This highway is also a major north-south freeway connecting the major population centers of Los Angeles and the San Francisco Bay Area. In the Proposed Project vicinity, US 101 is a four-lane freeway with two lanes of travel in each direction. Interchanges on US 101 in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives include those located at Niblick Road, 24th Street/State Route 46, Pine Street, a northbound on-ramp at 13th Street, and a northbound off-ramp at Paso Robles Street. Alternatives PLR-1A and PLR-C propose improvements in the vicinity of an unsignalized four-way intersection of US 101 with Wellsona Road.

State Route 46 (SR 46) is the major east-west corridor in San Luis Obispo County that connects the Central Coast to the Central Valley, thus traffic on SR 46 is largely interregional, including substantial recreational, tourist and truck traffic (San Luis Obispo Council of Governments [SLOCOG] 2019). As shown in Figure 4.17-1, SR 46 passes through roughly the middle of the Proposed Project, reasonably foreseeable distribution components, and alternatives area. The Proposed Project 70 kV new power line would cross SR 46 at Paso Robles Boulevard/Union Road, while the Proposed Project's 70 kV reconductoring segment would cross SR 46 near River Road. The northern reasonably foreseeable distribution new line segment would be installed within the SR 46 right of way adjacent to and northeast of Hunter Ranch Golf Course. The 70 kV power line under Alternative PLR-1A would cross SR 46 near the intersection with Branch Road.

Local Arterials

Buena Vista Drive is a two-lane road located in northern Paso Robles and unincorporated San Luis Obispo County that includes both north-south and east-west segments. Within Paso Robles it is an arterial (City of Paso Robles 2019). North of Circle B Road, a portion of Buena Vista Drive is identified as a collector in the Salinas River Sub-Area of the North County Planning Area (San Luis Obispo County 2014). The Proposed Project's new 70kV power line segment would follow a short east-west segment of Buena Vista Drive that is parallel to and north of Circle B Road.

Golden Hill Road is a north-south arterial that runs from Creston Road to Circle B Road. Golden Hill Road ranges from a two-lane to four-lane arterial. In the area of Golden Hill Industrial Park and Cava Robles RV Resort, through which the Proposed Project's 70 kV power line would pass, Golden Hill Road is two lanes. The Proposed Project's 70 kV power line would primarily follow the private portion of Golden Hill Road north of San Antonio Winery north to Lake Place. As shown in Figure 2-7 (Chapter 2, *Project Description*), the primary construction staging area for the Proposed Project 70 kV power line would be located off of Golden Hill Road south of Wisteria Lane. The Alternative PLR-3 undergrounding segment would follow a similar route as the Proposed Project 70 kV route along a portion of Golden Hill Road.

Niblick Road serves as the third major crossing of the Salinas River in Paso Robles, serving as an east-west four-lane arterial from Spring Street past Creston Road (City of Paso Robles 2019). Niblick Road is just south of the southernmost end of the Proposed Project's 70 kV reconductoring segment. The Paso Robles Substation is located just north of Niblick Road (at River Road), which forms the terminus of the reconductoring segments under the Proposed

Project and Alternatives PLR-1A and PLR-1C, as well as the interconnection point for the 70 kV power line under Alternative SE-PLR-2.

River Road is primarily a two-lane undivided north-south collector road, which transitions to a four-lane arterial in the vicinity of its intersection with Niblick Road, and from its intersection with 13th Street/Creston Road to its intersection with Union Road (City of Paso Robles 2019). The existing San Miguel-Paso Robles 70 kV Power Line that would be reconductored under the Proposed Project and Alternatives PLR-1A and PLR-1C follows River Road (with the pole line alignment on the easterly side of River Road). Under Alternative SE-PLR-2, the new 70kV power line connecting the expanded Templeton Substation (Alternative SE-1A) to Paso Robles Substation would follow River Road from near Lothar Lane north to the intersection with Niblick Road.

Union Road is an east-west two-lane road that runs generally parallel to and south of SR 46. Within Paso Robles, it is designated as an arterial (City of Paso Robles 2019). In unincorporated San Luis Obispo County, it is designated as an arterial from Priska Drive to Penman Springs Road. East of Penman Springs Road, it is a collector (County of San Luis Obispo 2014). The proposed Estrella Substation would be located off of Union Road in a rural area east of Penman Springs Road. The Proposed Project's 70 kV power line would closely follow Union Road from roughly the Huer Huero Creek crossing west to the intersection with Paso Robles Boulevard. One of the reasonably foreseeable additional 21/12 kV pad-mounted transformers would be installed along Union Road east of Branch Road.

Local Collectors

El Pomar Drive runs generally east-west and is identified as a collector in the El Pomar-Estrella Sub-Area of the North County Planning Area (San Luis Obispo County 2014). The new 230/70 kV substation immediately adjacent to the existing Templeton Substation that would be installed under Alternative SE-1A would be located on El Pomar Drive, as shown in Figure 4.17-1.

Jardine Road is a north-south road identified as a collector in the Salinas River Sub-Area of the North County Planning Area (San Luis Obispo County 2014). Portions of the Alternative PLR-1A and PLR-1C 70 kV alignments would follow Jardine Road north of its intersection with Tower Road.

Wellsona Road is an east-west road identified as a collector in the Salinas River Sub-Area of the North County Planning Area (San Luis Obispo County 2014). Portions of the Alternative PLR-1A and PLR-1C alignments would follow Wellsona Road between Airport Road and River Road.

Roadway Capacity Utilization

Table 4.17-1 presents information regarding the capacity utilization of roadways in the City of Paso Robles and within proximity to the Proposed Project, reasonably foreseeable distribution components, and alternatives. As shown in Table 4.17-1, none of the City roadways were experiencing congestion at levels that exceeded the roadway capacity in 2017. Utilization of Niblick Road east of Spring Street was projected to reach 93 percent of capacity in 2045.

Table 4.17-1. City of Paso Robles Roadway Capacity Utilization under Current and Future Conditions

Roadway Segment		Year 2017		Year 2045[1]	
		ADT[2]	Capacity Utilization	ADT	Capacity Utilization
Buena Vista Drive	North of SR 46	5,520	25%	9,300	43%
Golden Hill Road	South of Dallons Drive	5,730	32%	10,100	27%
	South of Union Road	11,980	55%	17,100	46%
	South of Rolling Hills Road	9,320	43%	14,600	82%
Niblick Road	East of Spring Street	31,430	84%	**34,600**	**93%**
	East of Quarterhorse Lane	19,620	52%	23,800	64%
	East of Melody Drive	15,140	40%	21,400	57%
South River Road	North of Serenade	12,710	34%	14,200	38%
	North of Navajo Avenue	12,750	72%	12,800	72%
Union Road	East of Prospect Avenue	5,990	34%	12,700	72%
	East of Golden Hill Road	8,640	40%	16,500	76%

Note:

1. Year 2045 conditions include proposed improvements in included in City of Paso Robles General Plan *Circulation Element* (2019).
2. ADT = Average daily traffic during a typical weekday.

Source: City of Paso Robles 2019

Capacity utilization along US 101 and SR 46 in the area of the Proposed Project, reasonably foreseeable distribution components, and alternatives is projected to be more constrained compared to the City of Paso Robles roadways shown in Table 4.17-1. The City of Paso Robles *Circulation Element* (2019) states that degradation of US 101 mainline operations by Year 2045 and beyond is anticipated because of future growth within and outside San Luis Obispo County, as well as the addition of traffic from proposed land uses in the City of Paso Robles General Plan. Similarly, future traffic volumes along the SR 46 East corridor (from US 101 to Airport Road) are expected to exceed capacity during certain times of the day; typically the morning and afternoon two-hour commute periods (City of Paso Robles 2019).

Existing Transit Service

Public transit service in the Paso Robles area is provided by the San Luis Obispo Regional Transportation Authority (RTA) and Amtrak. RTA services include fixed-route bus lines, paratransit, dial-a-ride/curb-to-curb transportation, and Paso Express bus service. RTA transit routes in the Proposed Project, reasonably foreseeable distribution components, and alternatives area include the Route 9 fixed-route bus line, and the Paso Express bus route, described below.

RTA Route 9 provides public transit service from San Miguel to Paso Robles, Templeton, Atascadero, Santa Margarita, and San Luis Obispo, with both weekday service and more limited weekend service (San Luis Obispo RTA 2019). Route 9 provides service along the following roadways in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives:

- US 101, from Paso Robles to points north and south of the City;
- SR 46, from US 101 to Buena Vista Drive (weekday service only), and
- Buena Vista Drive, from SR 46 to River Oaks Drive (weekday service only).

RTA Paso Express provides public transit service in Paso Robles, with both weekday service and more limited weekend service (San Luis Obispo RTA 2019). The Paso Express provides service along the following roadways in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives:

- Niblick Road, from Spring Street to Rambouillet Road, and
- Creston Road, from 13th Street to its intersection with Niblick Road/Sherwood Road.

Amtrak operates a railroad station at 800 Pine Street in Paso Robles, west of US 101. Amtrak's service to Paso Robles consists of the Coast Starlight line, which provides service from Los Angeles to Seattle. The stops closest to Paso Robles are San Luis Obispo, to the south; and Salinas, to the north. The Paso Robles Amtrak station has a passenger waiting area and is unstaffed (Amtrak 2019).

Existing Bicycle and Pedestrian Facilities

Within Paso Robles, many streets already have sidewalks, especially through the neighborhoods and commercial areas (City of Paso Robles 2018). Existing bicycle facilities and multi-use paths located in the vicinity of the Proposed Project, reasonably foreseeable distribution components, and alternatives include the following:

Niblick Road in Paso Robles includes a Class II bikeway (bike lane) from its intersection with Spring Street to the intersection of Niblick Road and Creston Road (City of Paso Robles 2018).

River Road includes a Class III bikeway (bike route) within unincorporated San Luis Obispo County from the Paso Robles city boundary at Creston Road south to the intersection of River Road and Neal Spring Road (County of San Luis Obispo 2016).

Union Road includes a Class II bikeway from its intersection with River Road and Creston Road/13th Street to Montebello Oaks Drive.

Creston Road includes a Class II bikeway from its intersection with River Road/Union Road and 13th Street to Golden Hill Road.

Neal Spring Road includes a Class III bikeway within unincorporated San Luis Obispo County from the its intersection with River Road to the intersection of Neal Spring Road and El Pomar Drive (County of San Luis Obispo 2016).

El Pomar Drive includes a Class III bikeway within unincorporated San Luis Obispo County from the its intersection with Neal Spring Road to the intersection of El Pomar Drive and South Main Street (County of San Luis Obispo 2016).

Along **Charolais Road**, the City maintains a Class I bikeway (bike/multi-use path) from Creston Road east to River Road, where the bike path continues west across River Road and along a drainageway to Riverbank Lane (City of Paso Robles 2018).

The River Walk is a Class I bikeway (bike/multi-use path) in Paso Robles located along the east bank of the Salinas River, west of River Road, from south of Niblick Road to Union Road. The River Walk passes beneath the Niblick Road and Creston Road bridges that cross the Salinas River.

Existing Commute Trips

The mean travel time to work for Paso Robles residents is 23.2 minutes, with 77.9 percent of the work force driving alone to work, 12.4 percent carpooling, and 5.5 percent working from home (U.S. Census 2017). Public transportation, walking, bicycling, and taxicab/motorcycle/other is each used by less than two percent of the Paso Robles work force (U.S. Census 2017). The prime daily commute period (i.e., morning rush hour) is 6:30 to 8:30 a.m. (U.S. Census 2017). Table 4.17-2 identifies employment centers in the Paso Robles area and the major roads providing access to employment centers from residential areas.

Table 4.17-2. Paso Robles Employment Centers and Access Roadways

Employment Centers	Major Roadways Connecting Employment Centers and Residential Areas	
	North-South	East-West
Uptown – the historic downtown, west of the Salinas River	US 101 River Road	SR 46 Union Road Creston Road/13th Street Niblick Road/1st Street
Northeastern Business Area – commercial areas near the Paso Robles Airport, generally north of SR 46 and east of Golden Hill Road	US 101 Golden Hill Road	SR 46 Union Road
Town Center South – the southernmost area of Paso Robles, south of 1st Street, along US 101 and South Vine Street	US 101 River Road South Vine Street Spring Street	Niblick Road/1st Street

Sources: City of Paso Robles 2018; City of Paso Robles 2019; SLOCOG 2014

Two park-and-ride lots served by public transit are located in Paso Robles, providing parking areas for public transit users and also serving as neutral meeting locations for carpools and vanpools. Paso Robles Park & Ride Lot A is located at the Multi Modal Station at Pine and 7th streets, while the Paso Robles Walmart Park & Ride Lot is located in the Walmart parking lot at Niblick and South River roads (San Luis Obispo Rideshare 2019).

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Bonel Ranch Substation Site (Alternative SS-1)

Estrella Substation (Proposed)

Paso Robles Substation

Templeton Substation

Templeton Substation Expansion (Alternative SE-1A)

FTM Site 1

FTM Site 2

FTM Site 3

FTM Site 4

FTM Site 5

FTM Site 6

FTM Site 7

FTM Site 8

San Miguel Substation

Atascadero Substation

Estrella Rd

WELLSONA RD

TOWER RD

BUENA VISTA DR

CIRCLE B RD

DALLONS DR

MILL RD

UNION RD

NIBLICK RD

SHERWOOD RD

CHAROLAIS RD

RAMBOUILLET RD

S RIVER RD

LOTHAR LN

NEAL SPRING RD

CRESTON RD

VAQUERO RD

EL POMAR DR

Templeton Rd

EXLINE RD

MONTEREY RD

N River Rd

Airport Rd

AIRPORT RD

JARDINE RD

BRANCH RD

PRISKA DR

PENMAN SPRINGS RD

GOLDEN HILL RD

SPRING ST

PINE ST

24TH ST

13TH ST

WALNUT DR

MELODY DR

SANTA ISABEL AVE

Nacimiento Lake Dr

N Bethel Rd

N Main St

Las Tablas Rd

Templeton

Old County Rd

S El Pomar Rd

Jack Oconnell Hwy

Paso Robles Municipal Airport

Paso Robles

Atascadero

San Luis Obispo

2859 ft

San Miguel

Inset Map

Main Map

Atascadero Lake Park

Carmelita Ave

Atascadero Creek

Mar Rd

Lake View Dr

Mountain View Dr

San Gabriel Rd

Merchant Way

46

101

41

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Proposed Project

- Estrella Substation
- 70kV Route
- 70 kV Minor Route Variation 1

Reasonably Forseeable Distribution Components

- New Distribution Line Segments
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

Transportation Features

- Temporary Crossing Structure Work Area
- Paso Robles City Boundary
- Relevant Roadways
- Multi-Use Path

Source: ESRI 2018, Paso Robles General Plan 2018, PG&E 2019, SCWA 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Figure 4.17-1
Roadways

Estrella Substation and Paso Robles Area Reinforcement Project

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4.17.5 Impact Analysis

Methodology

Transportation impacts were evaluated in the context of local and regional circulation patterns, VMT, existing roadway configurations, and local traffic operations. Details about the specific methodology used for analyzing VMT impacts is discussed under Impact TR-2 below. Potential impacts were compared to requirements and strategies of applicable plans and policies related to circulation, emergency access and evacuation. The criteria for determining the significance of potential impacts are outlined below.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, and alternatives would result in a significant impact related to transportation if they would:

A. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;

B. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);

C. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or

D. Result in inadequate emergency access or interfere with an adopted emergency evacuation plan.

Environmental Impacts

Proposed Project

Impact TR-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities – *Less than Significant with Mitigation*

Applicable plans include the circulation elements of the County of San Luis Obispo and City of Paso Robles General Plans. In general, the plans focus more on long-term transportation needs, rather than short-term, construction-related effects. For example, the *Land Use and Circulation Elements* of County of San Luis Obispo General Plan, Framework for Inland Areas (County of San Luis Obispo 2015) seeks to "plan transportation system improvements to provide for, but not exceed, the capacities that are needed to serve the travel demand generated by the year 2010 population…" (Goal 2), and "coordinate the transportation system between different modes of travel…" (Goal 4). The *Circulation Element* of the City of Paso Robles General Plan (City of Paso Robles 2019) similarly seeks to "establish a safe, balanced, efficient, and multimodal circulation system, focusing on the mobility of people, and preserving the City's small town character and quality of life" (Goal CE-1). The City of Paso Robles's *Circulation Element* also seeks to reduce

VMT and provide safe and convenient pedestrian and bicycle access to all areas of the City. See Appendix A for additional description of the local plans related to transportation.

For the purposes of this analysis, the Proposed Project would be considered to conflict with the County and City *Circulation Elements* if it would add a substantial number of vehicle trips to the area, during construction and/or operation, such as significantly affect roadway capacity, or if the Proposed Project were to otherwise cause substantial delays. Additionally, the Proposed Project would conflict with these plans if it were to adversely affect pedestrian and bicycle access.

Construction

Construction of the Proposed Project would result in a temporary increase in vehicle traffic along nearby roadways. Specifically, construction of the Estrella Substation would result in increased traffic primarily along Union Road in the immediate vicinity of the substation site, as well as on SR 46 and US 101, due to daily worker and truck trips to and from the Estrella Substation site. As shown in Table 4.17-3, worker and truck trips would vary by construction phase, some of which may overlap. Truck trips would result from deliveries of construction materials and water to the Estrella Substation site, as well as off-haul of waste materials. The delivery and application of water for construction and dust control would be the primary source of truck trips during construction of the Estrella Substation (NEET West and PG&E 2017). Construction of the Proposed Project's 70 kV power line would result in similar impacts on the transportation system from adding worker and truck trips. The transportation impacts of 70 kV power line construction would be dispersed throughout much of the City of Paso Robles and affected areas of unincorporated San Luis Obispo County.

Table 4.17-3. Estimated Daily Worker and Truck Round-Trips for Construction of the Proposed Project

Construction Phase	Daily Worker RTs	Daily Truck RTs	# of Days	Max. # of Daily RTs
Estrella Substation				
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

Construction Phase	Daily Worker RTs	Daily Truck RTs	# of Days	Max. # of Daily RTs
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
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
<u>70 kV Power Line</u>				
Reconductoring Segment				
Site Development	6	5	24	11
Conductor Spreading / Pole Installation / Transfer Distribution / Pole Removal	9	7	86	16
Conductor Installation	9	5	76	14
Clean-up and Site Restoration	6	3	6	9
New 70 kV Power Line Segment				
Site Preparation / Mobilization	6	5	6	11
Pole Foundation Installations / Pole Installations	9	6-8	192	17
Conductor, Fiber, and Common Neutral Installation	9	5	48	14

Construction Phase	Daily Worker RTs	Daily Truck RTs	# of Days	Max. # of Daily RTs
Clean-up and Site Restoration	6	4	24	10

Notes: kV= kilovolt; RT = round-trips

Source: NEET West and PG&E 2017; NEET West and PG&E 2020

The period of greatest construction traffic impact for the Estrella Substation is anticipated during the second week of the second month of construction, when the following activities are scheduled: 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 period, approximately 122 daily one-way vehicle trips (i.e., 61 round trips) would occur. Based on the overall Proposed Project schedule, this period lines up with scheduled conductor spreading, pole installation, transfer distribution, and pole removal work for the 70 kV reconductoring segment, which could generate up to 32 daily one-way vehicle trips (i.e., 16 round trips) (see Table 4.17-3). As such, up to 154 daily one-way vehicle trips could be generated by the Proposed Project during the peak activities.

This maximum number of daily vehicle trips associated with Proposed Project construction was compared to capacity utilization of roadways within the City of Paso Robles to gain an understanding of the Proposed Project's potential impacts on roadway capacity. The analysis conservatively assumed that all trips generated by the construction of the 70 kV power line would utilize all roadway segments in the area, while all trips generated by the construction of Estrella Substation would utilize the relevant segment of Union Road. The results of this analysis are presented in Table 4.17-4.

Table 4.17-4. Estimated City of Paso Robles Roadway Capacity Utilization with Proposed Project Construction Trips

Roadway Segment		Existing Conditions		Existing plus Project	
		ADT	Capacity Utilization	ADT	Capacity Utilization
Buena Vista Drive	North of SR 46	5,520	25%	5,552	25%
Golden Hill Road	South of Dallons Drive	5,730	32%	5,802	32%
Niblick Road	East of Spring Street	31,430	84%	31,462	84%
South River Road	North of Navajo Avenue	12,750	72%	12,782	72%
	North of Serenade	12,710	34%	12,742	34%
Union Road[1]	East of Golden Hill Road	8,640	40%	8,794	41%

Notes: ADT = average daily traffic; SR = State Route

1. Road segment is assumed to be affected by construction traffic for both Estrella Substation and 70 kV power line. All other road segments are assumed to be affected by construction traffic for the 70 kV power line only.

Sources: City of Paso Robles 2019; NEET West and PG&E 2017

As shown in Table 4.17-4, the Proposed Project's construction traffic would increase the capacity utilization of affected roadways by one percent or less. The highest rate of capacity utilization with the addition of the Proposed Project's construction vehicle trips would be 84 percent, which is the highest rate of capacity utilization for these roadways under existing conditions. With respect to US 101 and SR 46, recent data is not available for these roadways, but based on data from 2011 (included in the previous iteration of the City of Paso Robles General Plan *Circulation Element*), the Proposed Project's construction vehicle trips would not significantly affect these roadways in terms of capacity utilization. The capacity utilization for applicable segments of US 101 and SR 46 was 80 percent or below in 2011 (City of Paso Robles 2011).

Apart from addition of vehicle trips to area roadways, Proposed Project construction activities would (without implementation of preventative measures) adversely impact the circulation system through operation of heavy equipment and trucks on public roadways (thereby causing delays and potentially resulting in safety hazards), temporary lane or road closures that may be necessary during Proposed Project construction, and impacts from crossing structures needed for the 70 kV power line to span roadways. Construction truck traffic (e.g., crew trucks, semi-trucks, dump trucks, concrete trucks, and water trucks) accessing the Estrella Substation site and/or work area sites along the Proposed Project's 70 kV power line route may have adverse effects on traffic flow due to the slower travel speeds and larger turning radii of trucks. Movement of construction equipment within public roadways would similarly affect traffic, in particular along the new 70 kV power line segment and reconductored segment where it may be necessary to conduct work from road shoulders where poles are located adjacent to roadways.

Construction of the Estrella Substation is unlikely to require any lane or road closures. However, temporary lane or road closures may be required for construction of the 70 kV power line, in particular at locations where the power line route would cross roadways. The following roadways would be spanned by the new 70 kV power line segment: SR 46, Union Road, Buena Vista Drive, and a private dirt road that provides access to a residence in the northwestern project area. The reconductoring segment would span River Oaks Drive, SR 46, Union Road, Creston Road, and several local roadways. See crossing structure locations on Figure 4.17-1. The roadway crossings would utilize crossing structures (consisting of temporary wood poles) or line trucks or cranes and possibly netting to protect the existing roadways from sagging conductors during construction.

Temporary lane or road closures required for crossing structure installation would, absent proper protocols, result in substantial delays and potentially safety hazards for local motorists, pedestrians, and bicycles. These delays and safety hazards would conflict with the various applicable circulation elements, resulting in a significant impact. However, no bikeways would specifically be impacted, as none of the existing bikeways/bicycle facilities in the Paso Robles area are located within or directly adjacent to Proposed Project work areas.

While the Proposed Project Applicants would obtain encroachment permits from Caltrans, County of San Luis Obispo, and/or City of Paso Robles for impacts to jurisdictional rights-of-way, **Mitigation Measure TR-1** would be necessary to establish minimum traffic control standards and to ensure that all transportation modes are protected. Like the encroachment permits, Mitigation Measure TR-1 would include requirements to minimize inconvenience to the traveling public and ensure that all warning signs, lights, devices, and procedures conform to the

latest MUTCD. With implementation of Mitigation Measure TR-1 and the requirements in encroachment permits, Proposed Project construction would not result in substantial delays or pose a hazard to motorists.

Overall, while Proposed Project construction would add a minor number of vehicle trips to the area that would not substantially affect existing roadway capacity, the Proposed Project would conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, during construction by causing delays and safety hazards. This impact would be significant. However, with implementation of Mitigation Measure TR-1, this impact would be mitigated to a level that **less than significant with mitigation.**

Mitigation Measure TR-1: Construction Traffic Control Plan

HWT and PG&E shall implement a traffic control plan during Proposed Project construction and/or during construction of the reasonably foreseeable distribution components or selected alternatives. The traffic control plan will minimize vehicle travel delays and potential roadway hazards on public roadways during construction activities. The traffic control plan may be used to satisfy requirements imposed in encroachment permits from Caltrans, County of San Luis Obispo, and/or City of Paso Robles. The traffic control plan shall provide for the following:

- In situations where slow-moving trucks or construction equipment are operated on public roadways (e.g., accessing the Estrella Substation site or staging or work areas along the Proposed Project's 70 kV power line route), signage and/or flaggers shall be used to warn motorists of potential safety hazards associated with the slow-moving vehicles.

- For any lane closures, signage, flaggers, and/or other devices shall be used to route vehicle traffic around the construction work area. The traffic control measures shall ensure that pedestrians and bicyclists are provided safe passage around the work area, where applicable.

- For any road closures, detours shall be provided and signage, flaggers, and/or other devices shall be used to ensure motorists, pedestrians, and bicyclists are able to safely pass through the detour areas.

- Police, fire, and other emergency services departments serving the area shall be notified of planned lane or road closures on public roadways at least 48 hours in advance.

- Crossing structure installation shall occur during periods of low traffic (e.g., avoiding the morning and evening rush hour periods) to the extent practicable.

- All warning signs, lights, devices, and procedures used in the construction traffic control plan shall conform to the latest MUTCD.

Operation

As described in Chapter 2, *Project Description*, the substation and 70 kV power line would be remotely operated and no staff would be located permanently on-site. As such, there would be no daily vehicle trips from Proposed Project personnel during the operation phase. The vehicle trips generated by the Proposed Project during operation would be limited to personnel conducting periodic inspections and as-needed maintenance/repair activities. The Estrella Substation would generally be inspected monthly (with more invasive inspections performed periodically), while the 70 kV power line would be inspected 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 (for wood structures) or every 5 years (for lines constructed on steel structures). As such, the Proposed Project operational activities would add minimal, infrequent trips to area roadways that would not affect capacity or cause delays.

Proposed Project operation and maintenance activities would not be expected to require lane or road closures or operation of heavy equipment within public roadways; however, if these activities were to be required (e.g., due to a significant repair of a power line structure or conductor adjacent to a roadway), this could result in a significant impact for the reasons described above under "Construction." To reduce this impact, the Applicants would be required to implement the measures in **Mitigation Measure TR-1**, as well as obtain any needed encroachment permits from the applicable jurisdictions/agencies. Given implementation of Mitigation Measure TR-1 and adherence to requirements in encroachment permits, this impact would be **less than significant with mitigation.**

Impact TR-2: Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b) – *Less than Significant*

As discussed in Section 4.17.3, above, Senate Bill 743, which was codified in PRC Section 21099, required changes to the criteria for determining the significance of transportation impacts included in the CEQA Guidelines in order to "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." These changes have been incorporated into Section 15064.3 of the CEQA Guidelines, identifying VMT as the most appropriate metric to evaluate a project's transportation impacts. Subdivision (b) of CEQA Guidelines Section 15064.3 discusses criteria for analyzing transportation impacts and consists of four subsections. The following paragraphs briefly describe the four subsections and their applicability to the Proposed Project:

(1) Land Use Projects – CEQA Guidelines Section 15064.3(b)(1) discusses conditions under which projects involving non-transportation land uses may have significant transportation impacts. Because the Proposed Project is not a transportation project, it is considered a land use project for the purpose of analyzing transportation impacts during the Proposed Project operations.

(2) Transportation Projects – Section 15064.3(b)(2) discusses conditions under which transportation projects may have significant transportation impacts. This subsection does not apply to the Proposed Project.

(3) Qualitative Analysis – Section 15064.3(b)(3) explains that, if no existing models or methods are available to estimate the VMT for a proposed project, the project's VMT

may be analyzed qualitatively, noting that a qualitative analysis of construction traffic may be appropriate for many projects. A qualitative analysis of the Proposed Project's construction transportation impacts relative to CEQA Guidelines 15064.3 (b) was conducted.

(4) Methodology – Section 15064.3(b)(4) states that a lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT and should document and explain any assumptions used to estimate VMT. Screening criteria described in the Technical Advisory (OPR 2018) were applied to the Proposed Project to evaluate the need for further VMT analysis. As described below, the estimation of vehicle trips generated by Project operations falls below the screening threshold and therefore no further analysis was conducted.

As discussed in Impact TR-1 above, the Proposed Project would add a minor amount of vehicle trips to area roadways during construction, and even fewer trips during operation. Therefore, the project would not significantly affect existing roadway capacity. The VMT for Proposed Project construction-related vehicle trips would depend on several factors, including the origin of construction worker commute trips (e.g., distance from their homes or temporary lodging to the construction site), origin of materials and equipment deliveries to the construction site, and distance to landfills or other disposal sites from the construction site. While these factors are not all precisely known at this time, the relatively low overall number of vehicle trips generated during Proposed Project construction would equate to a relatively low total VMT. Additionally, the construction vehicle trips and associated VMT would be temporary, minimizing the potential long-term impact of the Proposed Project in terms of GHG emissions.

The Technical Advisory discussed in Section 4.17.3 includes guidance for identifying screening thresholds to evaluate when a project should be expected to result in a less-than-significant transportation impact relative to VMT, without performing a detailed study. This guidance notes that, unless there is substantial evidence to the contrary, projects that, based on land use type, would add 110 or fewer trips per day, could be considered not to lead to a significant impact. As described in the discussion under Impact TR-1, the Proposed Project operations would generate approximately one round-trip per month, which would be well below the suggested screening threshold. Therefore, the Proposed Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b) during operation. Overall, this impact would be **less than significant.**

Impact TR-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) – *Less than Significant with Mitigation*

The Proposed Project would not require changes to any road configurations that could create sharp curves or dangerous intersections. For detailed discussion regarding potential safety hazards during construction, refer to the discussion under Impact TR-1, above. As described under Impact TR-1, the presence of slow-moving trucks and use of construction equipment on project area roadways would create a potential safety hazard to motorists, pedestrians, and bicyclists from the incompatible uses. This impact would be significant. Implementation of **Mitigation Measure TR-1** and adherence to requirements in encroachment permits from

applicable jurisdictions/agencies would ensure that operation of heavy trucks and equipment in public roadways during Proposed Project construction would not pose a significant hazard.

The Proposed Project would include new vehicular access driveways to the Estrella Substation site that, if not properly designed and constructed, could result in safety hazards. However, the Proposed Project site plan would be designed such that all access roads, driveways, and parking areas are accessible to emergency service vehicles. Overall, this impact would be **less than significant with mitigation.**

Impact TR-4: Result in inadequate emergency access or interfere with an adopted emergency evacuation plan – *Less than Significant with Mitigation*

During Proposed Project construction, emergency access on nearby local roads could be restricted by the presence of slow-moving trucks on local roads and/or work occurring within the public right of way, such as the construction of crossing structures at local roadways. Therefore, construction of the Proposed Project would result in a significant impact to emergency access. As discussed under Impact TR-1, implementation of **Mitigation Measure TR-1** and adherence to requirements in encroachment permits from applicable jurisdictions/agencies would mitigate Proposed Project construction activities impacts to less than significant levels. Emergency departments would be notified of planned lane or road closures under Mitigation Measure TR-1. Additionally, while the Proposed Project construction could result in temporary lane or road closures, the activities would be temporary and not dissimilar from other road projects that typically occur in the area.

As previously described under Impact TR-1, operational traffic would not substantially reduce the effectiveness of nearby roadways or impair emergency access on these roads. No aspects of the Proposed Project would permanently affect or alter existing public roadways. For these reasons, the Proposed Project would not be expected to result in inadequate emergency access or interfere with emergency evacuation. As such, this impact would be **less than significant with mitigation.**

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

The transportation impacts of the reasonably foreseeable distribution components would be similar but less severe than those described for the Proposed Project (see Impact TR-1). While the types of equipment and vehicles used for installation of the reasonably foreseeable distribution components would be similar to those used in Proposed Project construction, the estimated vehicle trips for the distribution work would be much fewer than for construction of the Proposed Project (NEET West and PG&E 2017). Reduced vehicle trips would occur because the construction schedule is shorter, and grading and site preparation at the 70 kV substation will have been completed. Reduced vehicle trips would also occur due to the fewer workers required and fewer material, water, and fuel deliveries (NEET West and PG&E 2017). The PEA estimated that during peak construction activities, the reasonably foreseeable distribution components would generate 31 daily round-trip vehicle trips (equivalent to 62 one-way trips) (NEET West and PG&E 2017). As discussed in Impact TR-1, this number of trips would not exceed the existing capacity utilization of any roadways in the area. Given that the reasonably

foreseeable distribution components would be operated remotely, they would generate a negligible number of trips over the long-term for inspections and/or maintenance.

The work within Estrella Substation for the reasonably foreseeable distribution components would have no potential to directly impact public roadways. Likewise, the southern reasonably foreseeable new distribution line segment would be installed largely along an existing private road within agricultural fields north of the Estrella Substation and would not impact the circulation system. However, the northern reasonably foreseeable new distribution line segment would be installed within the SR 46 right-of-way and the additional 21/12 kV pad-mounted transformers would be installed along existing public roadways; thus, these activities would have potential to disrupt traffic and alternative transportation modes. Operation of heavy construction equipment within roadways and/or any temporary lane closures that may be necessary for construction of the reasonably foreseeable distribution components could cause delays or create a safety hazard, particularly if proper protocols are not followed. As such, this impact would be significant**.** The Proposed Project Applicants would need to obtain encroachment permits from Caltrans and County of San Luis Obispo for activities impacting public roadways. **Mitigation Measure TR-1** must be implemented to ensure traffic control measures are implemented and that all transportation modes are protected. With implementation of these measures, the reasonably foreseeable distribution components would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Ultimate substation buildout would involve activities primarily within the fence line of the already-constructed Estrella Substation (i.e., installation of additional transformers, breakers, and switches in the 230 kV and 70 kV substations) and thus would not substantially affect any public roadways or otherwise conflict with a program, plan, ordinance, or policy addressing the circulation system. Although construction and operation of distribution feeders and/or 70 kV power lines that could be established through ultimate buildout of the Estrella Substation could have impacts on transportation, the routes of these future lines are not known and thus the impacts are speculative. Therefore, overall, impacts under significance criterion A would be **less than significant with mitigation.**

Similar to the Proposed Project (see discussion under Impact TR-2), VMT associated with construction activities for the reasonably foreseeable distribution components and ultimate substation buildout would depend on a number of factors, such as the origin of construction worker commute trips (e.g., distance from their homes or temporary lodging to the construction site), origin of materials and equipment deliveries to the construction site, and distance to landfills or other disposal sites from the construction site. While these factors are not all precisely known at this time, the low overall number of vehicle trips generated during construction of distribution components and ultimate buildout of Estrella Substation would equate to a relatively low total VMT (which would be temporary). During operation, the reasonably foreseeable distribution components and the Estrella Substation at its ultimate buildout capacity would generate well below 110 trips per day (they would be operated remotely); thus, they would be considered to have a less than significant impact with respect to CEQA Guidelines 15064.3, subdivision (b) per OPR's (2018) Technical Advisory. Therefore, impacts under significance criterion B would be **less than significant.**

Neither the reasonably foreseeable distribution components nor the facilities associated with ultimate substation buildout would permanently change any road configurations to create sharp curves or dangerous intersections. Construction of the reasonably foreseeable distribution components may require operation of heavy construction equipment and slow-moving trucks within public roadways, which could potentially increase hazards due to the incompatible uses and/or interfere with emergency vehicle access and movement and evacuation procedures, a significant impact. However, implementation of **Mitigation Measure TR-1** and adherence to requirements in any needed encroachment permits would reduce these effects to a level that is less than significant. Given the limited activities associated with ultimate substation buildout occurring within the existing Estrella Substation, these activities would not have the potential to substantially affect public roadways such as to result in substantial hazards or interfere with emergency access, and implementation of mitigation would not be required. Therefore, overall, impacts under significance criteria C and D would be **less than significant with mitigation**.

Alternatives

No Project Alternative

Under the No Project Alternative, no transportation impacts would occur. No new substation or new and reconductored power line segments would be constructed; therefore, no vehicle trips would be generated during construction or operation and there would be no potential for impacts from construction activities affecting public roadways. As a result, **no impact** would occur under any of the significance criteria.

Alternative SS-1: Bonel Ranch Substation Site

Construction of the substation at the Bonel Ranch Substation Site under Alternative SS-1 would have similar transportation impacts as the proposed Estrella Substation. The number of construction vehicle trips and the frequency of the trips for Alternative SS-1 is estimated to be the same as for the Proposed Project (see Table 4.17-3). In general, the Bonel Ranch Substation Site is in a similarly or more rural location as the proposed Estrella Substation site. The number of construction vehicle trips associated with construction of Alternative SS-1 would not substantially affect roadway capacity utilization of Estrella Road, SR 46, or other roadways in this area. The substation at the Alternative SS-1 site would be operated remotely and would generate no vehicle trips during operation apart from those associated with monthly inspections and as-needed maintenance and repairs.

Construction activities for Alternative SS-1 would have similar potential as the Proposed Project to directly impact roadways from operation of heavy equipment within the public right-of-way and from heavy trucks entering and exiting the construction site. Temporary lane or road closures are not anticipated to be necessary for construction of Alternative SS-1, but if needed, these actions could impact motorists, as well as bicyclists and pedestrians, particularly if proper protocols are not followed. This would result in a significant impact. For impacts to Estrella Road, the Proposed Project Applicants would need to obtain an encroachment permit from County of San Luis Obispo. Additionally, **Mitigation Measure TR-1** would be implemented to ensure that traffic control measures are incorporated and all transportation modes are protected. With implementation of these measures, Alternative SS-1 would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, during construction. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Similar to the proposed Estrella Substation (see discussion under Impact TR-2), VMT associated with construction activities for Alternative SS-1 would depend on a number of factors, such as the origin of construction worker commute trips (e.g., distance from their homes or temporary lodging to the construction site), origin of materials and equipment deliveries to the construction site, and distance to landfills or other disposal sites from the construction site. While these factors are not all precisely known at this time, the relatively low overall number of vehicle trips generated during construction of Alternative SS-1 would equate to a relatively low total VMT (which would be temporary). During operation, the substation under Alternative SS-1 would generate well below 110 trips per day (the substation would be operated remotely); thus, the alternative would be considered to have a less than significant impact with respect to CEQA Guidelines 15064.3, subdivision (b) per OPR's (2018) Technical Advisory. Therefore, impacts under significance criterion B would be **less than significant.**

The substation under Alternative SS-1 would not permanently change any road configurations to create sharp curves or dangerous intersections. Construction of Alternative SS-1 may require operation of heavy construction equipment and slow-moving trucks within public roadways, which could potentially increase hazards due to the incompatible uses and/or interfere with emergency vehicle access and movement and evacuation procedures, resulting in a significant impact. Accordingly, **Mitigation Measure TR-1** and requirements in any needed encroachment permits would be implemented in order to reduce these effects to a level that is less than significant. Therefore, impacts under significance criteria C and D would be **less than significant with mitigation**.

Alternative PLR-1A: Estrella Route to Estrella Substation

Construction of the 70 kV power line under Alternative PLR-1A would have similar transportation impacts as the Proposed Project's 70 kV power line; however, due to the longer construction schedule (approximately 16 months longer) for Alternative PLR-1A, these effects would be experienced for a longer period of time. As shown in Table 3-5 in Chapter 3, *Alternatives Description,* construction of Alternative PLR-1A would generate the same number of daily construction worker and truck trips as the Proposed Project, but the number of days of construction would be greater. Given Alternative PLR-1A's route through rural, agricultural areas north of the Paso Robles Municipal Airport, the vehicle trips would primarily affect rural County roads (e.g., Jardine Road, Wellsona Road, River Road); however, construction workers and trucks accessing the site also would likely use regional access routes such as SR 46 and US 101. Due to the relatively low number of daily trips associated with the construction activities, this would not substantially affect existing roadway capacity utilization such as to cause significant adverse impacts. Once constructed, the power line under Alternative PLR-1A would be operated remotely and would generate minimal vehicle trips associated with periodic inspections and as-needed maintenance and repairs.

Construction activities for Alternative PLR-1A would have similar potential as the Proposed Project to directly impact roadways from operation of heavy equipment within the public right-of-way, from heavy trucks entering and exiting the construction site, and from temporary lane or road closures that would be required (5 to 10 minutes at a time) at locations where the 70 kV line would cross existing roadways. This would be a significant impact. For impacts to County roadways, the Proposed Project Applicants would need to obtain an encroachment permit from County of San Luis Obispo. The Applicants also may need to obtain an encroachment permit from Caltrans for the portion of Alternative PLR-1A that would cross SR 46. The encroachment

permits would include requirements for traffic control. However, **Mitigation Measure TR-1** would be implemented to ensure that traffic control measures are properly incorporated and all transportation modes are protected. With implementation of these measures, Alternative PLR-1A would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, during construction. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Similar to the Proposed Project (see discussion under Impact TR-2), VMT associated with construction activities for Alternative PLR-1A would depend on a number of factors, such as the origin of construction worker commute trips (e.g., distance from their homes or temporary lodging to the construction site), origin of materials and equipment deliveries to the construction site, and distance to landfills or other disposal sites from the construction site. While these factors are not all precisely known at this time, the relatively low overall number of vehicle trips generated during construction of Alternative PLR-1A would equate to a relatively low total VMT (which would be temporary). During operation, the power line under Alternative PLR-1A would generate well below 110 trips per day (the power line would be operated remotely); thus, the alternative would be considered to have a less than significant impact with respect to CEQA Guidelines 15064.3, subdivision (b) per OPR's (2018) Technical Advisory. Therefore, impacts under significance criterion B would be **less than significant.**

The power line under Alternative PLR-1A would not permanently change any road configurations to create sharp curves or dangerous intersections. Construction of Alternative PLR-1A may require operation of heavy construction equipment and slow-moving trucks within public roadways, which could potentially increase hazards due to the incompatible uses and/or interfere with emergency vehicle access and movement and evacuation procedures, a significant impact. However, with implementation of **Mitigation Measure TR-1** and adherence to requirements in encroachment permits, these effects would be reduced to a level that is less than significant. Therefore, impacts under significance criteria C and D would be **less than significant with mitigation**.

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Construction of the 70 kV power line under Alternative PLR-1C would have similar transportation impacts as the Proposed Project's 70 kV power line; however, due to the longer construction schedule (approximately 15 months longer) for Alternative PLR-1C, these effects would be experienced for a longer period of time. As shown in Table 3-9 in Chapter 3, *Alternatives Description,* construction of Alternative PLR-1C would generate the same number of daily construction worker and truck trips as the Proposed Project, but the number of days of construction would be greater. Given Alternative PLR-1C's route through rural, agricultural areas north of the Paso Robles Municipal Airport, the vehicle trips would primarily affect rural County roads (e.g., Estrella Road, Jardine Road, Wellsona Road, River Road); however, construction workers and trucks accessing the site also would likely use regional access routes such as SR 46 and US 101. Due to the relatively low number of daily trips associated with the construction activities, this would not substantially affect existing roadway capacity utilization such as to cause significant adverse impacts. Once constructed, the power line under Alternative PLR-1C would be operated remotely and would generate minimal vehicle trips associated with periodic inspections and as-needed maintenance and repairs.

Construction activities for Alternative PLR-1C would have similar potential as the Proposed Project to directly impact roadways from operation of heavy equipment within the public right-of-way, from heavy trucks entering and exiting the construction site, and from temporary lane or road closures that would be required (5 to 10 minutes at a time) at locations where the 70 kV line would cross existing roadways. This would be a significant impact. For impacts to County roadways, the Proposed Project Applicants would need to obtain an encroachment permit from County of San Luis Obispo, which would include requirements for traffic control. However, **Mitigation Measure TR-1** would be implemented to ensure that traffic control measures are properly incorporated and all transportation modes are protected. With implementation of these measures, Alternative PLR-1C would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, during construction. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Similar to the Proposed Project (see discussion under Impact TR-2), VMT associated with construction activities for Alternative PLR-1C would depend on a number of factors, such as the origin of construction worker commute trips (e.g., distance from their homes or temporary lodging to the construction site), origin of materials and equipment deliveries to the construction site, and distance to landfills or other disposal sites from the construction site. While these factors are not all precisely known at this time, the relatively low overall number of vehicle trips generated during construction of Alternative PLR-1C would equate to a relatively low total VMT (which would be temporary). During operation, the power line under Alternative PLR-1C would generate well below 110 trips per day (the power line would be operated remotely); thus, the alternative would be considered to have a less than significant impact with respect to CEQA Guidelines 15064.3, subdivision (b) per OPR's (2018) Technical Advisory. Therefore, impacts under significance criterion B would be **less than significant.**

The power line under Alternative PLR-1C would not permanently change any road configurations to create sharp curves or dangerous intersections. Construction of Alternative PLR-1C may require operation of heavy construction equipment and slow-moving trucks within public roadways, which could potentially increase hazards due to the incompatible uses and/or interfere with emergency vehicle access and movement and evacuation procedures, a significant impact. However, with implementation of **Mitigation Measure TR-1** and adherence to requirements in encroachment permits, these effects would be reduced to a level that is less than significant. Therefore, impacts under significance criteria C and D would be **less than significant with mitigation**.

Alternative PLR-3: Strategic Undergrounding (Options 1 & 2)

Construction of the underground 70 kV power line segment under Alternative PLR-3 (both options) would have more severe transportation impacts compared to the Proposed Project's overhead 70 kV power line due to the prolonged lane closures required for trenching to install the underground line. As shown in Table 3-12 in Chapter 3, *Alternatives Description,* construction of Alternative PLR-3 would generate similar numbers of daily worker and truck trips as the Proposed Project's 70 kV power line. However, construction of Alternative PLR-3 would require single lane closures for approximately 4 to 6 weeks on Germaine Way; 11 to 13 weeks on Wisteria Lane (Option 1 only); 7 to 9 weeks on Golden Hill Road; 3 to 5 weeks on the Cava Robles RV Resort driveway, and 4 to 6 weeks on the Circle B Homeowners Association road. While the construction worker and truck trips would not be sufficient to exceed the utilization

capacity of any local roadways (e.g., Golden Hill Road, SR 46, US 101), the lane closures could cause delays and potentially create safety hazards for motorists, bicyclists, and pedestrians, particularly if proper protocols are not implemented. This would be a significant impact. For the lane closures and any construction activities within the public right-of-way, the Proposed Project Applicants would need to obtain encroachment permits from the County of San Luis Obispo and City of Paso Robles, which would include requirements for traffic control. Further, **Mitigation Measure TR-1** would be implemented to ensure that traffic control measures are properly incorporated and all transportation modes are protected. With implementation of these measures, Alternative PLR-3 would not substantially conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, during construction. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Similar to the Proposed Project (see discussion under Impact TR-2), VMT associated with construction activities for Alternative PLR-3 would depend on a number of factors, such as the origin of construction worker commute trips (e.g., distance from their homes or temporary lodging to the construction site), origin of materials and equipment deliveries to the construction site, and distance to landfills or other disposal sites from the construction site. While these factors are not all precisely known at this time, the relatively low overall number of vehicle trips generated during construction of Alternative PLR-3 would equate to a relatively low total VMT (which would be temporary). During operation, Alternative PLR-3 would generate well below 110 trips per day (the power line segment would be operated remotely); thus, the alternative would be considered to have a less than significant impact with respect to CEQA Guidelines 15064.3, subdivision (b) per OPR's (2018) Technical Advisory. Therefore, impacts under significance criterion B would be **less than significant.**

The power line segment under Alternative PLR-3 would not permanently change any road configurations to create sharp curves or dangerous intersections. Once constructed, the power line segment would be entirely underground (except for the transition stations, which would be located off the roadway) and road surfaces would be restored to existing conditions. As noted above, construction of Alternative PLR-3 would require extended single lane closures along several local roads and also may require operation of heavy construction equipment and slow-moving trucks within public roadways. This could potentially increase hazards due to the incompatible uses and/or interfere with emergency vehicle access and movement and evacuation procedures, a significant impact. However, with implementation of **Mitigation Measure TR-1** and adherence to requirements in encroachment permits, these effects would be reduced to a level that is less than significant. Therefore, impacts under significance criteria C and D would be **less than significant with mitigation**.

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

Construction of the substation at the Templeton Substation Expansion Site under Alternative SE-1A would have similar transportation impacts as the proposed Estrella Substation. The number of construction vehicle trips and the frequency of the trips for Alternative SE-1A is estimated to be the same as for the Proposed Project (see Table 4.17-3). In general, the Templeton Substation Expansion Site is in a similarly or more rural location as the proposed Estrella Substation site. The number of construction vehicle trips associated with construction of Alternative SE-1A would not substantially affect roadway capacity utilization of El Pomar Drive, South River Road, US 101, or other roadways in this area. The substation at the Alternative SE-

1A site would be operated remotely and would generate no vehicle trips during operation apart from those associated with monthly inspections and as-needed maintenance and repairs.

Construction activities for Alternative SE-1A would have similar potential as the Proposed Project to directly impact roadways from operation of heavy equipment within the public right-of-way and from heavy trucks entering and exiting the construction site. Temporary lane or road closures are not anticipated to be necessary for construction of Alternative SE-1A, but if needed, these actions could impact motorists, as well as bicyclists and pedestrians, particularly if proper protocols are not followed. This would be a significant impact. For impacts to El Pomar Drive, the Proposed Project Applicants would need to obtain an encroachment permit from County of San Luis Obispo. Further, **Mitigation Measure TR-1** would be implemented to ensure that traffic control measures are incorporated and all transportation modes are protected. With implementation of these measures, Alternative SE-1A would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, during construction. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Similar to the proposed Estrella Substation (see discussion under Impact TR-2), VMT associated with construction activities for Alternative SE-1A would depend on a number of factors, such as the origin of construction worker commute trips (e.g., distance from their homes or temporary lodging to the construction site), origin of materials and equipment deliveries to the construction site, and distance to landfills or other disposal sites from the construction site. While these factors are not all precisely known at this time, the relatively low overall number of vehicle trips generated during construction of Alternative SE-1A would equate to a relatively low total VMT (which would be temporary). During operation, the substation under Alternative SE-1A would generate well below 110 trips per day (the substation would be operated remotely); thus, the alternative would be considered to have a less than significant impact with respect to CEQA Guidelines 15064.3, subdivision (b) per OPR's (2018) Technical Advisory. Therefore, impacts under significance criterion B would be **less than significant.**

The substation under Alternative SE-1A would not permanently change any road configurations to create sharp curves or dangerous intersections. Construction of Alternative SE-1A may require operation of heavy construction equipment and slow-moving trucks within public roadways, which could potentially increase hazards due to the incompatible uses and/or interfere with emergency vehicle access and movement and evacuation procedures, a significant impact. However, with implementation of **Mitigation Measure TR-1** and adherence to requirements in any needed encroachment permits, these effects would be reduced to a level that is less than significant. Therefore, impacts under significance criteria C and D would be **less than significant with mitigation**.

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Construction of the 70 kV power line under Alternative SE-PLR-2 would have similar transportation impacts as the Proposed Project's 70 kV power line; however, due to the shorter construction schedule (approximately 9 months shorter) for Alternative SE-PLR-2, these effects would be experienced for a shorter period of time. As shown in Table 3-16 in Chapter 3, *Alternatives Description,* construction of Alternative SE-PLR-2 would generate the same number of daily construction worker and truck trips as the Proposed Project, but the number of days of construction would be fewer (except for site preparation and mobilization). Given Alternative

SE-PLR-2's route through primarily rural residential areas of San Luis Obispo County, the vehicle trips would primarily affect rural County roads (e.g., El Pomar Road, South River Road); however, construction workers and trucks accessing the site also would likely use regional access routes such as SR 46 and US 101. The northern portion of the Alternative SE-PLR-2 route also passes through urban areas of Paso Robles along South River Road. Nevertheless, due to the relatively low number of daily trips associated with the construction activities, this would not substantially affect existing roadway capacity utilization such as to cause significant adverse impacts. Once constructed, the power line under Alternative SE-PLR-2 would be operated remotely and would generate minimal vehicle trips associated with periodic inspections and as-needed maintenance and repairs.

Construction activities for Alternative SE-PLR-2 would have similar potential as the Proposed Project to directly impact roadways from operation of heavy equipment within the public right-of-way, from heavy trucks entering and exiting the construction site, and from temporary lane or road closures that would be required (5 to 10 minutes at a time) at locations where the 70 kV line would cross existing roadways. This would be a significant impact. For impacts to County and City roadways, the Proposed Project Applicants would need to obtain encroachment permits from the County of San Luis Obispo and City of Paso Robles, which would include requirements for traffic control. Further, **Mitigation Measure TR-1** would be implemented to ensure that traffic control measures are properly incorporated and all transportation modes are protected. With implementation of these measures, Alternative SE-PLR-2 would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, during construction. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Similar to the Proposed Project (see discussion under Impact TR-2), VMT associated with construction activities for Alternative SE-PLR-2 would depend on a number of factors, such as the origin of construction worker commute trips (e.g., distance from their homes or temporary lodging to the construction site), origin of materials and equipment deliveries to the construction site, and distance to landfills or other disposal sites from the construction site. While these factors are not all precisely known at this time, the relatively low overall number of vehicle trips generated during construction of Alternative SE-PLR-2 would equate to a relatively low total VMT (which would be temporary). During operation, the power line under Alternative SE-PLR-2 would generate well below 110 trips per day (the power line would be operated remotely); thus, the alternative would be considered to have a less than significant impact with respect to CEQA Guidelines 15064.3, subdivision (b) per OPR's (2018) Technical Advisory. Therefore, impacts under significance criterion B would be **less than significant.**

The power line under Alternative SE-PLR-2 would not permanently change any road configurations to create sharp curves or dangerous intersections. Construction of Alternative SE-PLR-2 may require operation of heavy construction equipment and slow-moving trucks within public roadways, which could potentially increase hazards due to the incompatible uses and/or interfere with emergency vehicle access and movement and evacuation procedures, a significant impact. However, with implementation of **Mitigation Measure TR-1** and adherence to requirements in encroachment permits, these effects would be reduced to a level that is less than significant. Therefore, impacts under significance criteria C and D would be **less than significant with mitigation**.

Alternative BS-2: Battery Storage to Address the Distribution Objective

Construction of FTM BESSs under Alternative BS-2 at the example sites considered in this DEIR would generate vehicle traffic for activities such as vegetation removal, grading, concrete slab or foundation construction, delivery and installation of BESSs, construction/installation of appurtenant facilities, and establishing connections. Although the size of individual FTM BESSs would be determined based on future load conditions in the Paso Robles area, it is anticipated that these individual facilities would each be substantially smaller than the Estrella Substation (although a 50 megawatt / 400 megawatt-hour facility at the Templeton Substation site [example FTM Site 6] would occupy roughly 9.1 acres). In general, the numbers of daily worker and truck trips generated from construction of FTM BESSs under Alternative BS-2 would not be anticipated to exceed existing roadway capacity utilization. Once the FTM storage facilities are installed, operation and maintenance activities may involve minor adjustments and servicing from time to time, which would typically involve one or two workers traveling to the site and conducting maintenance or repairs.

Construction activities for Alternative BS-2 would have potential to directly impact roadways from operation of heavy equipment within the public right-of-way and from heavy trucks entering and exiting the construction site. Construction of FTM BESSs could impact motorists, as well as bicyclists and pedestrians. It is assumed that encroachment permits would be obtained for any construction activities under Alternative BS-2 that may substantially impact the roadway.

Similar to the proposed Estrella Substation (see discussion under Impact TR-2), VMT associated with construction activities for Alternative BS-2 would depend on a number of factors, such as the origin of construction worker commute trips (e.g., distance from their homes or temporary lodging to the construction site), origin of materials and equipment deliveries to the construction site, and distance to landfills or other disposal sites from the construction site. While these factors are not all precisely known at this time, the relatively low overall number of vehicle trips likely to be generated during construction of Alternative BS-2 would equate to a relatively low total VMT (which would be temporary). During operation, the FTM BESSs under Alternative BS-2 would generate well below 110 trips per day (the BESSs would be operated remotely)**.**

The example FTM BESSs examined under Alternative BS-2 would not permanently change any road configurations to create sharp curves or dangerous intersections. Construction of Alternative BS-2 may require operation of heavy construction equipment and slow-moving trucks within public roadways, which could potentially increase hazards due to the incompatible uses and/or interfere with emergency vehicle access and movement and evacuation procedures. However, as mentioned above, it is assumed that encroachment permits would be obtained for any construction activities under Alternative BS-2 that may substantially impact the roadway.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

The specific locations of development sites under Alternative BS-3 are unknown. As described in Chapter 3, *Alternatives Description,* individual BTM solar and storage facilities would likely be installed on or within existing buildings. During construction, vehicle trips would be required for deliveries of individual BTM solar and/or storage units to customers' properties, installation of the units on-site, and wiring work to connect the BTM resources to existing electrical systems. Some building owners may choose to install the BTM facilities on previously undeveloped portions of their property, which would require vehicle trips for activities such as vegetation clearing, light grading, minor excavation, and installation of a concrete slab or a small enclosed building with a foundation. Once the BTM facilities are installed, operation and maintenance activities may involve minor adjustments and servicing from time to time, which would typically involve one or two workers traveling to the site and conducting maintenance/repairs.

Given the small-scale and dispersed nature of the BTM facilities under Alternative BS-3, construction and operation of these resources would not result in substantial conflicts with existing programs, plans, or policies related to the circulation system; substantial conflicts with CEQA Guidelines Section 15064.3, subdivision (b); increased hazards due to design features or incompatible uses, or interference with emergency access or evacuation procedures.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

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4.18 Tribal Cultural Resources

4.18.1 Introduction

This section presents the environmental setting and potential impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives related to tribal cultural resources (TCRs). TCRs include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. As such, TCRs may contain physical cultural remains (i.e., materials found in archaeological sites), or they may be places within the natural landscape.

4.18.2 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies are applicable to TCRs and the Proposed Project, reasonably foreseeable distribution components, and alternatives.

State Laws, Regulations, and Policies

California Environmental Quality Act

AB 52 (Statutes of 2014, Chapter 532) requires that lead agencies under the CEQA consult with California Native American tribes that have requested in writing to be notified and that are traditionally and culturally affiliated with the geographic area of a proposed project, prior to the development of a CEQA document. PRC Section 21084.2 specifies that a project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment. This language was added to Appendix G (initial study checklist) of the CEQA Guidelines in 2016. AB 52 also requires that a project's CEQA lead agency consult with California Native American tribes as required under PRC Section 21080.3.1.

As defined in PRC Section 21074:

(a) TCRs are either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

A. Included or determined to be eligible for inclusion in the California Register of Historical Resources (CRHR).

B. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section

5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a TCR if it conforms to the criteria of subdivision (a).

Mitigation measures for TCRs may be developed in consultation with the affected California Native American tribe(s) in accordance with PRC Section 21080.3.2 or Section 21084.3. The latter section identifies examples of mitigation measures that include avoidance and preservation of TCRs and treating TCRs with culturally appropriate dignity, taking into account tribal cultural values and the meaning of the resource.

California Register of Historical Resources

As described in Section 4.5, "Cultural Resources," the CRHR is established in PRC Section 5024.1. The CRHR lists all California properties considered to be significant historical resources, including all properties listed in, or determined to be eligible for listing in, the NRHP. Resources listed in, or eligible for listing in, the CRHR are referred to as *historical resources.* The criteria for listing include resources that:

1. Are associated with the events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Are associated with the lives of persons important in our past;

3. Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or

4. Have yielded, or may be likely to yield, information important in prehistory or history.

The CCR Section 4852 sets forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

California Native American Heritage Commission

The NAHC was created in 1976 and is a nine-member body whose members are appointed by the Governor. The NAHC identifies, catalogs, and protects Native American cultural resources, which includes ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California (NAHC 2020). The NAHC is also charged with ensuring California Native American tribes' access to ancient Native American cultural resources on public lands, overseeing the treatment and disposition of inadvertently discovered Native American human remains and burial items, and administering the California Native American Graves Protection and Repatriation Act, among other powers and duties (NAHC 2020).

4.18.3 Environmental Setting

Ethnography

As discussed in Section 4.5, "Cultural Resources," the Proposed Project, reasonably foreseeable distribution components, and alternatives are located in the ancestral territory traditionally occupied by indigenous populations who spoke the Salinan language. Please refer to Section 4.5.3, "Environmental Setting," for additional information about the Salinan who lived in the region at the time of colonization.

Native American Consultation

PRC Section 21080.3.1 states that the CEQA lead agency shall provide formal notification of a proposed project to any Native American tribe with a traditional and cultural affiliation with the project's geographic area, if a tribe has requested such notification in writing. No tribes in the Proposed Project area have requested notification pursuant to 21080.3.1(b)(1) from the CPUC. Nevertheless, the CPUC conducted outreach to tribes about the Proposed Project to determine if they had knowledge about specific TCRs within the Project area or had general concerns about the Project.

The CPUC contacted the NAHC on July 11, 2017, to request a search of the sacred lands files and for a list of all tribes with a traditional and cultural affiliation with the Proposed Project area. The NAHC responded on July 12, 2017, providing a list of nine tribes with a traditional and cultural affiliation with the Proposed Project area. The CPUC subsequently sent letters, via registered mail through the U.S. Postal Service, to all tribes included in the NAHC list on October 6, 2017.[1] The letters described the Proposed Project and summarized the results of the cultural resources studies conducted by the Applicants. The letters provided notice of the CPUC's consideration of the Proposed Project's potential to affect TCRs and invited the letter recipients to contact the CPUC if they wished to consult on the Proposed Project in accordance with PRC Section 21080.3.1. The tribes were also sent notices, dated March 28, 2019, of the availability of the Proposed Project's Alternatives Screening Report, which thoroughly described all of the alternatives proposed. Table 4.18-1 lists the tribes contacted via letters sent on October 6, 2017 and summarizes the consultation with each tribe.

[1] No mailing address was supplied for Mia Lopez, Chairperson of the Coastal Band of the Chumash Nation, by the NAHC. As a result, the letter was sent to Chairperson Lopez via email on October 6, 2017.

Table 4.18-1. Tribal Consultation

Tribe	Contact	Response Date	Notes
Barbareno / Ventureno Band of Mission Indians	Julie Lynn Tumamait-Stennslie, Chairperson	No response	None
	Eleanor Arrellanes	No response	None
	Raudel Joe Banuelos, Jr.	Letter returned; no forwarding address provided	None
Coastal Band of the Chumash Nation	Mia Lopez, Chairperson	No response	None
Northern Chumash Tribal Council	Fred Collins, Spokesperson	November 7, 2017, via email	Requested consultation on the Project and copies of technical reports. Cultural technical reports for the Proposed Project and alternatives were provided. Additional correspondence occurred through February 2020, at which time Mr. Collins stated that the Northern Chumash Tribal Council has no further comments on the project.
Salinan Tribe of Monterey, San Luis Obispo Counties	Patti Dunton, Tribal Administrator	No response	Ms. Dunton did not respond in writing to the CPUC's letter but had previously met with PG&E's archaeological consultants and requested copies of the technical reports, which were provided. No additional comments have been received.

Tribe	Contact	Response Date	Notes
Santa Ynez Band of Chumash Indians	Kenneth Kahn, Chairperson	October 31, 2017, phone call from Freddie Romero, the designated point of contact	Mr. Romero said the project area is outside of their traditional territory but wanted to make sure someone responded. He noted that it is territory of the Northern Chumash and would not comment unless asked to participate by another tribe.
Xolon-Salinan Tribe	Karen White, Council Chairperson	October 25, 2017, letter via email	Chairperson White had previously met with PG&E's archaeological consultants to discuss the project. In response to the CPUC's letter, copies of technical reports and a map of the Proposed Project and alternatives were requested. These were provided. Additional correspondence occurred through November 2019, including discussion of monitoring of ground disturbance during construction. The CPUC agreed to tribal monitoring.
Yak tityu tityu - Northern Chumash Tribe	Mona Olivas Tucker, Chairperson	No response	None.

As noted in Table 4.18-1, the Salinan Tribe of Monterey and San Luis Obispo Counties requested copies of the archaeological resources technical reports prepared by the Proposed Project Applicants, but the tribe did not request consultation under AB 52. Such consultation was, however, requested by the Santa Ynez Band of Chumash Indians and the Xolon-Salinan Tribe. After reviewing detailed information about the Proposed Project, in February 2020, the Santa Ynez Band of Chumash Indians stated that they had no additional comments about the Proposed Project and consultation with this tribe was complete. The CPUC has continued consultation with the Xolon-Salinan Tribe throughout the duration of the CEQA process. Although the Xolon-Salinan Tribe did not identify specific TCRs within the footprints of the Proposed Project, reasonably foreseeable distribution components, and alternatives, the tribe expressed concern about project impacts near waterways such as Dry Creek, Huero Creek, and the Salinas and Estrella rivers, as they often served as travel and trade routes, and ancestral sites were often located near viable water bodies. The Xolon-Salinan Tribe requested, in writing, that a tribal monitor be present for all ground disturbance to a depth of 6 feet below the surface.

4.18.4 Impact Analysis

Methodology

The analysis of potential impacts to TCRs was qualitative in nature and considered the potential for the Proposed Project, reasonably foreseeable distribution components, and alternatives to cause a substantial adverse change in the significance of a TCR, as identified in the significance criteria below.

Criteria for Determining Significance

For the purposes of this analysis, based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, and/or alternatives would result in a significant impact related to TCRs if they would:

A. Cause a substantial adverse change in the significance of a TCR, defined in PRC 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:

    a. Listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC Section 5020.1(k); or

    b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant under the criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Environmental Impacts

Proposed Project

Impact TCR-1: Cause a substantial adverse change in the significance of a tribal cultural resource – *Less than Significant with Mitigation*

As described in Section 4.5, "Cultural Resources," a pedestrian archaeological survey (NEET West and PG&E 2017a) identified three previously unrecorded resources, one of which was a prehistoric lithic scatter (Site 36052-S-003) on the edge of a bluff near the Salinas River and the Proposed Project's new 70 kV power line segment. For purposes of this analysis, this site is considered potentially CRHR-eligible, and thus is also considered to be a TCR, although none of the tribes contacted by the Applicants or the CPUC through the AB 52 process commented on this site. The pedestrian archaeological survey also identified a number of isolated prehistoric archaeological items, which are not CRHR-eligible, but attest to the widespread use of the Proposed Project area by ancient peoples. In particular, Dry Creek is known to have been used as a transportation corridor by Native Americans and the areas surrounding the Estrella and Salinas Rivers are considered sensitive for cultural resources.

Apart from the general information regarding sensitivity of certain areas for cultural resources, none of the tribes contacted by the CPUC identified known TCRs in the Proposed Project area. As such, it is unlikely that there are any significant above-ground known sites, features, places, or cultural landscapes, other than the prehistoric lithic scatter discussed above, that would be considered TCRs that could be impacted by the Proposed Project. However, archaeological deposits may be buried and exposed during Proposed Project construction (in particular, during deep excavations for installation of pole foundations). Buried archaeological remains may be determined eligible for listing in the CRHR and as TCRs, as would Native American human remains. As described in Section 4.5, "Cultural Resources," implementation of APMs CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, and GEN-1 would generally reduce potential for impacts to any known archaeological sites or buried unknown archaeological resources that could be determined to be TCRs. APM CUL-2 specifically identifies the preference for avoidance of Site 36052-S-003 near the Salinas River by project design, but acknowledges that it could be determined infeasible to avoid the site; therefore, the Proposed Project could have an adverse impact on this potentially eligible site. APM CUL-5 would require that a tribal monitor is present for initial ground-disturbing activities in culturally sensitive areas, which would reduce potential for impacts to TCRs. Additionally, APM GEN-1 would be implemented to ensure that construction workers are aware of the types of archaeological materials that could be encountered in situations when the tribal monitor may not be present (e.g., ground-disturbing activities away from sensitive locations) and the proper protocols to follow for discoveries.

While the APMs would reduce the potential for adverse impacts to any TCRs during construction, it would not be to a level that is less than significant due to a lack of specificity and the limited applicability of the measures. Implementation of **Mitigation Measures CR-1, CR-2, and TCR-1** would reduce the level of impacts to a less than significant level. Both Mitigation Measures CR-1 and CR-2 augment the APMs by providing greater detail about actions to be taken with regard to cultural resources, particularly Native American archaeological sites and human remains, which could be determined to be TCRs. Mitigation Measure TCR-1 will ensure that concerns of the Xolon-Salinan Tribe about potential significant impacts to TCRs will be addressed. Because the Proposed Project would not involve substantial ground disturbance

during operation, it would not affect TCRs during the operation phase. As a result, this impact would be **less than significant with mitigation**.

Mitigation Measure TCR-1: Tribal Monitoring and Treatment of Tribal Cultural Resources.

Prior to the commencement of any ground disturbing activity, the Proposed Project Applicants (HWT and PG&E) shall retain a monitor from the Xolon-Salinan tribe, who consulted on this project pursuant to AB 52. The Xolon monitor will work in tandem with the archaeological monitor. The Xolon monitor will be present during construction phases that involve ground-disturbing activities to depths of 6 feet that may occur within 100 feet of Dry Creek, Huer Huero Creek, the Salinas River, and the Estrella River, all of which have been identified as culturally sensitive, or within 50 feet of all known Native American archaeological sites. Monitoring of ground disturbance would also occur in the vicinity of Santa Ysabel Ranch, which was identified as culturally sensitive by the tribe. Ground-disturbing activities are defined as activities that may include, but are not limited to boring, grading, grubbing, excavation, drilling, and trenching, within the project areas. The tribal monitor will complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, and any cultural materials identified. Upon discovery of any TCRs, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 50 feet) until the find can be assessed.

All TCRs unearthed by project activities shall be evaluated by the Applicants' qualified cultural resources principal investigator and the tribal monitor or other tribal representative identified by the Xolon-Salinan Tribe. If the TCR cannot be avoided, a detailed archaeological treatment plan shall be developed and implemented by the Applicants' cultural resources principal investigator. The CPUC shall ensure that the treatment plan shall developed with input from and agreed upon by the Xolon-Salinan Tribe per Mitigation Measure CR-1. The Xolon-Salinan Tribe will determine the disposition of any TCRs artifacts discovered during construction or artifacts resulting from execution of a treatment plan, such as, but not limited to, reburying in close proximity of the finds without scientific study, allowing scientific study before reburying the materials either near the origin of the find or in another protected place, or curation at a facility at an institution that meets the U.S. Secretary of the Interiors criteria for curation (36 CFR 79).

If human remains and/or grave goods are discovered or recognized during construction, all ground disturbance shall immediately cease, and the requirements of Mitigation Measure CR-2 shall be implemented.

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

The reasonably foreseeable distribution lines would be installed primarily along existing roads and through agricultural areas north and east of the proposed Estrella Substation. Specifically, the southern reasonably foreseeable distribution line segment would be installed along an existing road through agricultural fields immediately north of the Estrella Substation. The

northern reasonably foreseeable distribution line segment would be installed within the SR 46 right-of-way (a short piece would also be installed through an agricultural field), while the 21/12 kV pad-mounted transformers would be installed along existing roads in the area. The southern reasonably foreseeable distribution line segment would come close (approximately 310 feet) to Dry Creek (known to be used as a transportation corridor by Native American peoples), while the northern distribution line segment would cross over Dry Creek via the SR 46 bridge/culvert. Record search information, as reported in Section 4.5.3, is available for all of the reasonably foreseeable distribution lines; however, pedestrian survey has not been conducted. The record search returned negative results. As described in Chapter 2, the equipment and facilities associated with ultimate substation buildout would primarily be placed within the fence line of the already-constructed Estrella Substation. The anticipated layout of the Estrella Substation at ultimate buildout is shown in Figure 2-18.

Although construction and operation of the reasonably foreseeable distribution components and ultimate buildout of Estrella Substation would not impact known TCRs, excavation for installation of distribution poles, grading necessary for establishing work areas, and ground disturbance required for constructing an additional 230 kV interconnection could potentially uncover archaeological materials that could ultimately be determined to be TCRs. Because site preparation and grading would already have been conducted for construction of the Estrella Substation, installation of additional equipment within the substation footprint as part of the reasonably foreseeable distribution components and ultimate substation buildout would not impact buried TCRs. As described in Chapter 2, *Project Description,* the routes of any additional future distribution feeders and/or 70 kV power lines that could be established through ultimate substation buildout are unknown, and thus the impacts of these facilities are speculative and not evaluated. For the reasons discussed in Impact TCR-1 and Section 4.5, "Cultural Resources," implementation of APMs CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, and GEN-1 would serve to minimize potential impacts to archaeological resources that are TCRs, but not to a level that is less than significant. Application of **Mitigation Measures CR-1, CR-2, CR-3, and TCR-1** would ensure that significant impacts to TCRs would be reduced to less than significant. As the reasonably foreseeable distribution components and ultimate substation buildout facilities would be operated remotely and would not require substantial ground-disturbance during operation, they would not substantially affect known or unknown TCRs during the operation phase. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Alternatives

No Project Alternative

Under the No Project Alternative, no new substation or 70 kV power line would be constructed. Therefore, no excavation or grading would occur and there would be no potential to impact TCRs during construction activities. As a result, **no impact** would occur under significance criterion A.

Alternative SS-1: Bonel Ranch Substation Site

As described in Section 4.5, "Cultural Resources," the records search for Alternative SS-1 did not reveal the presence of any known previously recorded archaeological sites, including any Native American sites. Additionally, none of the tribes contacted through the AB 52 process identified

any TCRs on or near the Alternative SS-1 site. However, the Alternative SS-1 site was not surveyed by foot for archaeological resources. Given the proposed substation's location adjacent to the Estrella River, which was identified by tribes as being sensitive for cultural resources, there is an elevated potential compared to the Proposed Project for encountering archaeological resources that could be determined to be TCRs. If construction activities for Alternative SS-1 were to encounter above-ground or buried resources that could be determined to be TCRs and proper protocols are not followed, this would result in a significant impact.

To avoid or minimize potential impacts, **Mitigation Measure CR-3** would be implemented to require that a pedestrian archaeological survey of the Alternative SS-1 site be conducted prior to final design and construction, and that any identified resources are avoided or treated. APMs CUL-1, CUL-2, CUL-3, CUL-4, CUL-5 and GEN-1 would be implemented for Alternative SS-1 and would serve to reduce potential impacts on archaeological resources, including potential TCRs. APM CUL-5, in particular, requires that a tribal monitor is present for initial ground-disturbing activities in culturally sensitive areas, including near Estrella River, which would reduce potential for impacts to TCRs, as the tribal monitor would have traditional knowledge not available to the archaeological monitor. APM GEN-1 would be implemented to ensure that construction workers are trained regarding the types of cultural resources that could be encountered when tribal monitors may not be present and the proper protocols to follow for discoveries. While implementation of the APMs would reduce the potential to impact TCRs, impacts would not be reduced to a less than significant level. Application of **Mitigation Measures CR-1, CR-2, CR-3, and TCR-1** would reduce impacts to less than significant. Once constructed, the substation under Alternative SS-1 would not require substantial excavation, grading, or other ground-disturbing activities; thus, it would not impact TCRs during the operation phase. Overall, impacts under significance criterion A would be **less than significant with mitigation.**

Alternative PLR-1A: Estrella Route to Estrella Substation

As described in Section 4.5, "Cultural Resources," no archaeological resources (including Native American sites or TCRs) were identified along the Alternative PLR-1A route during a pedestrian survey conducted for the length of Alternative PLR-1A. The only item discovered was a prehistoric isolated chert flake that was deemed ineligible for listing. Additionally, none of the tribes contacted through the AB 52 process identified any TCRs along or near the Alternative PLR-1A alignment. Given the fact that the alignment would cross Dry Creek (known to be used as a transportation corridor by ancient peoples) and Huer Huero Creek, and would parallel Salinas River for a portion of its length (i.e., reconductoring segment), there remains potential to encounter buried archaeological resources that could ultimately be TCRs. If construction activities for Alternative PLR-1A were to encounter buried resources that could be determined to be TCRs and proper protocols are not followed, this could result in a significant impact.

To avoid or minimize potential impacts, APMs CUL-1, CUL-3, CUL-4, CUL-5, CUL-6, and GEN-1 would be implemented for Alternative PLR-1A, all of which would serve to reduce potential impacts on cultural resources, including potential TCRs. APM CUL-5, in particular, would require that a tribal monitor is present for initial ground-disturbing activities in culturally sensitive areas, which would reduce potential for impacts to TCRs. APM GEN-1 would ensure that construction workers are trained regarding the types of cultural resources that could be encountered when tribal monitors may not be present and the proper protocols to follow for discoveries. Application of these APMs, however, would not reduce impacts to TCRs to a less than significant level. **Mitigation Measures CR-1, CR-2, CR-3, and TCR-1** would reduce such impacts to less than

significant. Once constructed, the power line under Alternative PLR-1A would not require substantial excavation, grading, or other ground-disturbing activities; thus, it would not impact TCRs during the operation phase. Overall, impacts under significance criterion A would be **less than significant with mitigation.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

As described in Section 4.5, "Cultural Resources," no archaeological resources (including Native American sites or TCRs) were identified along the Alternative PLR-1C route. The only item discovered was the same prehistoric isolated chert flake (deemed ineligible for listing) noted above for Alternative PLR-1A. Additionally, none of the tribes contacted through the AB 52 process identified any TCRs along or near the Alternative PLR-1C alignment. However, the eastern-most portion of the alignment was not subject to pedestrian survey. Given the fact that the alignment (particularly MRV 1) would occur in proximity to Estrella River, which is known to be sensitive for cultural resources, and Huer Huero Creek, and would parallel Salinas River for a portion of its length (i.e., reconductoring segment), there would be potential to encounter buried archaeological resources that could ultimately be determined to be TCRs. If construction activities for Alternative PLR-1C were to encounter above-ground or buried resources that could be determined to be TCRs and proper protocols are not followed, this could result in a significant impact.

To avoid or minimize potential impacts, **Mitigation Measure CR-3** would be implemented to require that a pedestrian archaeological survey of the un-surveyed portions Alternative PLR-1C route be conducted prior to final design and construction requiring any identified resources to be avoided or treated. APMs CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, and GEN-1, would be implemented for Alternative PLR-1C, all of which would serve to reduce potential impacts on archaeological resources, including potential TCRs, but not to a less than significant level. Implementation of **Mitigation Measures CR-1, CR-2, CR-3, and TCR-1** would ensure impacts to TCRs would be reduced to a level that is less than significant. Once constructed, the power line under Alternative PLR-1C would not require substantial excavation, grading, or other ground-disturbing activities; thus, it would not impact TCRs during the operation phase. Overall, impacts under significance criterion A would be **less than significant with mitigation.**

Alternative PLR-3: Strategic Undergrounding (Option 1 & 2)

As described in Section 4.5, "Cultural Resources," the Alternative PLR-3 alignments (both options) were generally covered by the Proposed Project cultural resources studies, which found no archaeological resources along this section of the Proposed Project's overhead 70 kV power line route. The only place not surveyed is the portion of Alternative PLR-3, Option 1 within Wisteria Lane and Golden Hill Road, where the underground power line would be installed underneath the pavement. Additionally, none of the tribes contacted through the AB 52 process identified any TCRs along or near the Alternative PLR-3 alignment. Although resources were not identified along these alignments and much of their length occurs within the roadway, the potential remains for intact buried archaeological deposits that could ultimately be determined to be TCRs to be discovered during construction. If proper protocols are not followed this could result in a significant impact to TCRs.

To avoid or minimize potential impacts, APMs CUL-1, CUL-3, CUL-4, and GEN-1 would be implemented for Alternative PLR-3, all of which would serve to reduce potential impacts on

archaeological resources, including potential TCRs. Because no portion of the Alternative PLR-3 (Option 1 or 2) alignment occurs within close proximity to streams or known prehistoric archaeological sites, a tribal monitor would not be required under APM CUL-5. APM GEN-1 would be implemented to ensure that construction workers are trained regarding the types of cultural resources that could be encountered and the proper protocols to follow for discoveries. Although these APMs would be enacted, they would not reduce impacts to a less than significant level. However, application of **Mitigation Measures CR-1, CR-2, and TCR-1** would ensure that TCRs, should they be uncovered during construction, would be treated such that impacts would be less than significant. Once constructed, the underground power line under Alternative PLR-3 would not require substantial excavation, grading, or other ground-disturbing activities; thus, it would not impact TCRs during the operation phase. Overall, impacts under significance criterion A would be **less than significant with mitigation.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

As described in Section 4.5, "Cultural Resources," the records search and site survey for Alternative SE-1A did not reveal the presence of any archaeological sites, including any Native American sites that could be TCRs. Additionally, none of the tribes contacted through the AB 52 process identified any TCRs on or near the Alternative SE-1A site. Even while TCRs have not been identified, however, there is always potential for the excavation, grading, and other ground-disturbing activities during construction of Alternative SE-1A to encounter buried archaeological resources that could ultimately be determined to be TCRs. If this were to occur and proper protocols are not followed, it could result in a significant impact.

To avoid or minimize potential impacts, APMs CUL-1, CUL-3, CUL-4, and GEN-1 would be implemented for Alternative SE-1A, all of which would serve to reduce potential impacts on archaeological resources, including potential TCRs. Because there are no streams or known prehistoric archaeological sites in proximity to the Alternative SE-1A site, a tribal monitor is not anticipated to be necessary during construction activities under APM CUL-5. APM GEN-1 would be implemented to ensure that construction workers are trained regarding the types of cultural resources that could be encountered and the proper protocols to follow for discoveries. Although application of the APMs would minimize potential impacts to TCRs, they would not be reduced to a less than significant level. Implementation of **Mitigation Measures CR-1, CR-2, and TCR-1** would ensure impacts to TCRs would be less than significant. Once constructed, the substation under Alternative SE-1A would not require substantial excavation, grading, or other ground-disturbing activities; thus, it would not impact TCRs during the operation phase. Overall, impacts under significance criterion A would be **less than significant with mitigation.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

As described in Section 4.5, "Cultural Resources," no Native American sites or TCRs were identified along the Alternative SE-PLR-2 route during the records search or field survey. Additionally, none of the tribes contacted through the AB 52 process identified any specific TCRs along or near the Alternative SE-PLR-2 alignment, although tribe members did indicate that the Santa Ysabel Ranch area (through which the Alternative SE-PLR-2 alignment would pass) is sensitive for cultural resources. Given the fact that the alignment would pass through an area identified as sensitive by Native American peoples, there would be potential to encounter buried archaeological resources that could ultimately be determined to be TCRs. If construction activities for Alternative SE-PLR-2 (in particular, deep excavations for pole foundations) were to

encounter buried resources that could be determined to be TCRs and proper protocols are not followed, this could result in a significant impact.

To avoid or minimize potential impacts, APMs CUL-1, CUL-3, CUL-4, and GEN-1 would be implemented for Alternative SE-PLR-2, all of which would serve to reduce potential impacts on archaeological resources, including potential TCRs. APM GEN-1 would be implemented to ensure that construction workers are trained regarding the types of cultural resources that could be encountered and the proper protocols to follow for discoveries. Application of the APMs would not reduce potential impacts to TCRs to a less than significant level, while implementation of **Mitigation Measures CR-1, CR-2, and TCR-1** would achieve this goal. Of particular note is the presence of both archaeological and Xolon monitors during construction through the Santa Ysabel Ranch through Mitigation Measures CR-1 and TCR-1, which was not addressed by the APMs. Once constructed, the power line under Alternative SE-PLR-2 would not require substantial excavation, grading, or other ground-disturbing activities; thus, it would not impact TCRs during the operation phase. Overall, impacts under significance criterion A would be **less than significant with mitigation.**

Alternative BS-2: Battery Storage to Address the Distribution Objective

As described in Section 4.5, "Cultural Resources," no previously recorded Native American sites or other archaeological resources were identified by records searches of the illustrative FTM sites that are examined as part of the DEIR for Alternative BS-2. Only FTM Site 6 was surveyed in the field, producing no significant finds. Additionally, none of the tribes contacted through the AB 52 process identified any TCRs on or near the illustrative FTM sites. In general, many of the FTM sites considered (i.e., FTM Sites 1-4 and 7) are vacant parcels within developed areas of Paso Robles or Atascadero. FTM Site 5 is in an undeveloped area next to the Paso Robles Municipal Airport, while FTM Sites 6 and 8 are adjacent to existing substations in relatively rural parts of the county. While TCRs were not identified for those potential FTM sites that are examined as part of the DEIR, because excavation, grading, and other ground-disturbing activities are required for construction of individual FTM BESS facilities, the potential remains that buried archaeological resources, including TCRs, could be encountered under Alternative BS-2. Once constructed, the BESS facilities under Alternative BS-2 would not require substantial excavation, grading, or other ground-disturbing activities; thus, they would not impact TCRs during the operation phase.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

The specific locations of the BTM solar and battery storage facilities that could be installed under Alternative BS-3 are not known at this time. However, these facilities are anticipated to be installed largely within or on existing buildings in the greater Paso Robles area. In some cases, there could be BESSs or solar systems that are installed on undeveloped portions of existing properties, requiring some grading and excavation. Overall, however, due to the small-scale of

individual BTM facilities and their anticipated location within developed areas within and around Paso Robles, they are unlikely to impact TCRs during construction or operation.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

4.19 Utilities and Service Systems

4.19.1 Overview

This section describes the setting and potential impacts on utilities and service systems that could occur from the Proposed Project, reasonably foreseeable distribution components, and alternatives. Impacts to utilities and service systems under CEQA are generally related to increased demand for, or use of, utilities and service systems (e.g., water, wastewater, solid waste disposal, etc.), such as to require construction of new or expanded facilities. The CEQA Guidelines also have significance criteria for utilities and service systems related to non-compliance with existing solid waste laws and regulations.

4.19.2 Regulatory Setting

Federal Laws, Regulations and Policies

No federal laws, regulations, or policies are applicable to utilities and service systems in relation to the Proposed Project, reasonably foreseeable distribution components, and alternatives.

State Laws, Regulations and Policies

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act (CIWMA) of 1989 (PRC Division 30), enacted through AB 939 and modified by subsequent legislation, required all California cities and counties to implement programs to reduce, recycle, and compost at least 50 percent of wastes by 2000 (PRC Section 41780). A jurisdiction's diversion rate is the percentage of its total waste that a jurisdiction diverts from disposal through reduction, reuse, and recycling programs. The state, acting through the California Integrated Waste Management Board (CIWMB), determines compliance with this mandate. Per capita disposal rates are used to determine if a jurisdiction's efforts are meeting the intent of the act.

In 2011, the Legislature implemented a new approach to the management of solid waste. California's Commercial Recycling Bill (AB 341) went into effect on July 1, 2012, and set a recycling goal of 75 percent diversion by 2020. The bill is intended to: (1) reduce GHG emissions by diverting recyclable materials, and (2) expand the opportunity for increased economic activity and green industry job creation. AB 341 is a statewide policy goal rather than a city or county jurisdictional mandate.

In recent years, San Luis Obispo County has not been meeting its target disposal rates under the CIWMA. In 2015, the latest year of record, San Louis Obispo County's annual per capita disposal rate per resident was 5.1, compared to its target of 7.4 (California Department of Resources Recovery and Recycling [CalRecycle] 2016). Its annual per capita disposal rate per employee was 12.5 in 2015, compared to its target rate of 18.7 (CalRecycle 2016).

California Code of Regulations, Title 8, Section 1541: Excavations

Section 1541 of the CCR requires excavators to determine the approximate locations of subsurface installations, such as sewer, telephone, fuel, electric, and water lines, before opening an excavation, and avoid impacts to subsurface installations.

4.19.3 Environmental Setting

Wastewater Collection and Treatment Services

The Proposed Project would be located in areas of unincorporated San Luis Obispo County (North County Planning Area) as well as within the city of Paso Robles. In general, the rural portion of the County's 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. The majority of the Proposed Project facilities (e.g., Estrella Substation and portions of the 70 kV power line), as well as the reasonably foreseeable distribution components and the alternatives would be located in this rural area.

Wastewater collection and treatment services in Paso Robles city limits are managed by the City of Paso 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 approximately 31,000 customers within the city limits and also conveys an average of 6 million gallons per month from the Templeton Community Services District for treatment at the Paso Robles Wastewater Treatment Plant (PRWWTP). The PRWWTP has a capacity of 4.9 million gallons per day (mgd) and receives an average daily flow of approximately 2.9 mgd from the collection system (City of Paso Robles 2020a).

In 2019, the City completed construction of its tertiary treatment project which included the addition of flow equalization, cloth media filtration, and ultraviolet (UV) light disinfection facilities at PRWWTP. The PRWWTP was reclassified as a Class IV tertiary treatment wastewater treatment facility and operates under Order No. R3-2011-0002 issued by the Central Coast RWQCB (City of Paso Robles 2020b). In the near future, recycled water will be delivered to the east side of Paso Robles, where it will be used to irrigate golf courses, parks, and vineyards.

Water Supply

The Proposed Project, reasonably foreseeable distribution components, and the majority of the alternatives overlie the Salinas Valley Groundwater Basin, Paso Robles Area Subbasin. As described in Section 4.10, "Hydrology and Water Quality," the Paso Robles Area Subbasin has a surface area of 597,000 acres and supplies water for 29 percent of the county's population and an estimated 40 percent of the agricultural production of the county. Refer to Section 4.10 for discussion of the physical characteristics of the Paso Robles Area Subbasin, its estimated perennial yield, and water use within the subbasin area. Alternative SE-1A and illustrative FTM Site 6 lie within the Atascadero Subbasin, while Alternative SE-PLR-2 lies within both the Atascadero Subbasin and the Paso Robles Area Subbasin. Areas of the unincorporated county in the area of the Proposed Project, reasonably foreseeable distribution components, and alternatives generally rely on groundwater wells for water supply.

The City of Paso Robles provides municipal water supply service to customers within its jurisdiction. The City has historically relied on underflow from the Salinas River and groundwater pumped from the Paso Robles Area Subbasin 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 SWRCB. The City also pumps groundwater from 13 deep basin wells in the Paso Robles Area Subbasin. The City's supply has been supplemented in recent years with water from Lake Nacimiento. The City holds an entitlement with the San Luis Obispo County Flood Control and Water Conservation District for delivery of 6,488 afy of water from Lake Nacimiento. Water from Lake Nacimiento is conveyed to the City of Paso Robles through a pipeline system created by the Nacimiento Water Project, which was completed in 2010. The Nacimiento Water Project created 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 Paso Robles 2016).

The City treats raw water obtained from Lake Nacimiento through its Nacimiento Surface Water Treatment Plant, which has a capacity of 2.4 mgd. Operational since 2016, the City anticipates operating the Nacimiento Surface Water Treatment Plan approximately 5 to 9 months out of the year to serve peak summer demands, yielding approximately 1,120 afy to 2,017 afy; however, treatment plant operation could be increased to provide up to 2,688 afy (City of Paso Robles 2016). In 2015, the City produced 3,021 acre-feet of water from Salinas River wells, 2,045 acre-feet of water from groundwater wells, and 87 acre-feet of water from the Nacimiento Surface Water Treatment Plant (City of Paso Robles 2016).

As noted above, the City completed construction of tertiary treatment facilities at its PRWWTP to provide additional recycled water. 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 Huer Huero 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 afy of recycled water 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 Paso Robles 2016).

Stormwater Drainage

There is no formal stormwater drainage infrastructure in rural, unincorporated areas of San Luis Obispo County, including the majority of the areas where the Proposed Project, reasonably foreseeable distribution components, and alternatives are located. 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 the Phase II Municipal Storm Water Program under an 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. Portions of the Proposed Project power line components are located within the MS4 and SWMP management areas (County of San Luis Obispo 2010).

Stormwater and drainage facilities within the City of Paso Robles are owned and maintained by the City's Department of Public Works. The City is also enrolled in the Phase II Municipal Storm Water Program under the City's MS4 General Permit, and implements an associated SWMP (City of Paso Robles 2020c). Stormwater within the City is discharged into the Salinas River.

Solid Waste Disposal

Solid waste collection and disposal services in the area of the Proposed Project, reasonably foreseeable distribution components, and alternatives are provided by a variety of companies, including: 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. Two primary solid waste disposal sites exist in the area: the Paso Robles Landfill, owned by the City of Paso Robles, and the Chicago Grade Landfill in Templeton, described below. The Camp Roberts Landfill is also described below, as this is the nearest landfill that accepts contaminated (petroleum) soils. The nearest Class I hazardous waste landfill to the Proposed Project, reasonably foreseeable distribution components, and alternatives is the Kettleman Hills Facility.

- The Paso Robles Landfill is located just north of SR 46 approximately 8.5 miles east of the city of Paso Robles. The Paso Robles Landfill is a Class III facility for solid waste, which has a total permitted maximum capacity of 6,495,000 cubic yards and a permitted maximum throughput capacity of 450 tons per day. The Paso Robles Landfill accepts drilling muds, treated wood waste, pesticide containers, and other hazardous waste, although it does not accept soils with petroleum (Central Coast RWQCB 2014). As of October 2012, the landfill had 5,190,000 cubic yards (or 80 percent) of permitted capacity remaining. The landfill is scheduled to close around 2051 (CalRecycle 2016).

- The Chicago Grade Landfill is located at 2290 Homestead Road in Templeton. The Chicago Grade Landfill is a Class III facility that receives solid wastes, including drilling muds, treated wood waste, pesticide containers, and other forms of hazardous materials (with the exception of soils with petroleum) (Central Coast RWQCB 2014), 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 percent) 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).

- The Camp Roberts Landfill is located on Perimeter Road at Camp Roberts and is owned and operated by the California Army National Guard. This landfill is a Class III facility that receives solid waste, including drilling muds, treated wood waste, soils contaminated with petroleum, and pesticide containers (Central Coast RWQCB 2014). The Camp Roberts Landfill has a maximum permitted capacity of 1,004,579 cubic yards and a maximum permitted throughput of 618 tons per day (CalRecycle 2020). As of 2015, the Camp Roberts Landfill had 450,156 cubic yards (45 percent) of its permitted capacity remaining. The landfill is scheduled to close around 2045 (CalRecycle 2020).

- The Kettleman Hills Facility is located at 35251 Old Skyline Road in Kettleman City, which is in Kings County approximately 40 miles east-northeast of Paso Robles. The Kettleman Hills Facility is a 1,600-acre hazardous waste treatment, storage and disposal facility with 499 acres currently available and permitted for waste management activities (Waste Management 2020). The Kettleman Hills Facility is permitted to accept most types of hazardous wastes as defined by the USEPA and State of California (including PCBs) (Waste Management 2020).

Electricity and Natural Gas

PG&E provides electrical power to San Luis Obispo County, including the city of 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 the substations then use transformers to decrease the voltage of electricity to connect with the distribution system (NEET West and PG&E 2017). Both PG&E and Southern California Gas provide natural gas within San Luis Obispo County.

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 (NEET West and PG&E 2017).

4.19.4 Impact Analysis

Methodology

Potential impacts on utilities and service systems were evaluated qualitatively by considering aspects of the Proposed Project, reasonably foreseeable distribution components, and alternatives in light of the CEQA Guidelines Appendix G significance criteria (see below) and the existing regulatory and environmental settings.

Criteria for Determining Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project, reasonably foreseeable distribution components, or alternatives would result in a significant impact on utilities and service systems if they would:

A. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;

B. Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;

C. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

D. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or

E. Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Environmental Impacts

Proposed Project

Impact UTL-1: Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects – *Less than Significant*

Construction

As described in Chapter 2, *Project Description*, construction of the proposed Estrella Substation and 70 kV power line would require approximately 10.3 million gallons (approximately 32 acre-feet) of water during the 18-month construction period. The amount of water needed on a daily basis would vary by construction phase and activity, but it is estimated that construction of the substation would require approximately 68,600 gallons per day on average. About 25 percent of the total water used would be for construction (concrete mixing), with the remaining 75 percent used for dust control during the construction period. No dewatering is anticipated at the substation location. Water would be obtained from one or more of the following sources: a private well located adjacent to the Estrella Substation site, delivery by water trucks, Lake Nacimiento, PRWWTP, and/or through the City's existing fire hydrants and connections at Barney Schwartz Park.

Regardless of the source(s) utilized, the construction water demand of the Proposed Project would be well within the existing capacities of water treatment and conveyance facilities in the area. The 32 acre-feet needed for Proposed Project construction would represent just 1.2 percent of the City's Nacimiento Water Treatment Plant capacity of 2,688 afy; or a smaller percentage of the City's surface water production capabilities. As a result, construction of the Proposed Project would not require the construction of any new or expanded water facilities. Similarly, construction of the Proposed Project components would generate minimal wastewater (primarily from construction workers using portable restrooms) and would not require construction of any new or expanded wastewater collection or treatment facilities. Construction power would be supplied by tapping into existing distribution lines adjacent to the Estrella Substation site and small generators may also be used.

Prior to any excavations, the Proposed Project would comply with CCR Section 1541, which requires excavators to determine the approximate locations of, and avoid impacts to, subsurface installations (e.g., sewer, telecommunications, fuel, electric, sewer and water lines). No subsurface utility installations are anticipated beneath the substation site, and given that the excavations for 70 kV pole installations would occur primarily outside of the roadbed, it is unlikely for power line construction activities to encounter buried existing utility lines. Nevertheless, compliance with CCR Section 11541 would minimize potential impacts on any existing utilities that may be temporarily impacted or relocated. Overall, this impact would be **less than significant.**

Operation

The Proposed Project would not require any substantial water supply or wastewater service during operation. The Proposed Project would be limited to the remotely-operated electric transmission and distribution facilities and no water-consuming uses or activities would be present on site. Following construction of the Estrella Substation, short-term irrigation water would be used to support revegetation efforts; however, this use would be temporary and would not require any new or expanded water or wastewater treatment facilities. The Proposed Project itself would be comprised of new electric power facilities, the construction of which is evaluated throughout this DEIR. The proposed Estrella Substation also would include on-site stormwater management features (e.g., concrete skimmer and weir device), but the substation would not be connected to any municipal stormwater system that may require expansion. Therefore, the impacts of the Proposed Project during operation would be **less than significant.**

Impact UTL-2: Have insufficient water supplies to supply the project and reasonably foreseeable future development during normal, dry and multiple dry years – *Less than Significant*

Construction

As described in Impact UTL-1 above, the total Proposed Project construction water demand of 32 acre-feet would not exceed the capacities or entitlements of existing water suppliers in the area. A number of different water sources are potentially available to the Applicants and construction water demands would be modest compared to the various water sources and entitlements held by the City of Paso Robles, as well as the groundwater supply available (see Section 4.19.3). If construction of the Proposed Project components were to occur in a dry or multiple dry years, this could constrain the available supplies, but given that the City of Paso Robles has access to the supplemental supply at Lake Nacimiento and the drought-proof supply of recycled water produced at the PRWWTP, it is unlikely that construction water supplies would not be available. Regardless, since the construction water demands would be short-term and temporary, the City would not need to obtain additional entitlements to serve a new long-term water demand. As a result, this impact would be **less than significant.**

Operation

The Proposed Project would have virtually no water demand during operation and maintenance. As noted above, the Proposed Project components would operate remotely and no staff would be on site. Generally, none of the electrical equipment or processes would consume water and only small amounts of water may be used during infrequent maintenance activities. As such,

existing water supplies would be sufficient to supply the Proposed Project during operation. Therefore, this impact would be **less than significant.**

Impact UTL-3: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments – *Less than Significant*

As discussed under Impact UTL-1 above, the Proposed Project would generate minimal wastewater during the construction phase. This wastewater would primarily be from construction workers using portable restrooms during the construction period. Given that there would be roughly 12 to 15 workers on site at the substation on a typical workday, and 10 to 15 workers working on the power line, the amount of wastewater that would be generated would be inconsequential to the PRWWTP's operations and capacity (should the wastewater be taken to the PRWWTP by the portable restroom servicing company). As described in Section 4.19.3, the PRWWTP has a capacity of 4.9 mgd, but only receives an average daily flow of approximately 2.9 mgd from the collection system; therefore, the PRRWWTP has ample available capacity to serve additional needs.

During operation, the Proposed Project would generate minimal wastewater. As discussed above, the Proposed Project components would operate remotely and no staff would be permanently located on site. The Proposed Project components also would not be connected to the municipal wastewater collection and treatment system. Wastewater generated during Proposed Project operation would be limited to inspection and maintenance staff using the restroom during infrequent inspection activities. As such, the Proposed Project would not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the Proposed Project's demands. Therefore, this impact would be **less than significant.**

Impact UTL-4: Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals – *Less than Significant*

As described in Chapter 2, *Project Description,* earthwork activities for construction of the Estrella Substation would result in up to 50,000 cubic yards (cy) of cut and fill material, which would be balanced on site to the maximum extent possible. Some of this material that cannot be balanced on site may need to be disposed of at regional landfills. Vegetation clearing for construction of the Proposed Project components also would generate vegetative debris that would require disposal at an approved organics processing facility. Drilling mud from any horizontal directional drilling during Proposed Project construction that cannot be reused would be disposed of in a landfill as well. Wood poles and one LST also may require disposal.

Following construction, during the operation phase, the Proposed Project would generate minimal solid waste. As noted above, the Proposed Project components would all be operated remotely and no staff would be permanently located on site (thus no routine domestic waste would be generated). Generally, the electrical equipment and processes at the substation would not generate solid waste, and neither would the 70 kV power line, other than periodic replacement of worn-out or deficient parts.

Most of the solid waste generated during construction and operation of the Proposed Project (e.g., drilling mud, treated wood poles, vegetative debris, and excess soil) would be disposable at either the Chicago Grade Landfill or Paso Robles Landfill. Both of these landfills have ample available capacity to accept solid waste, as the Chicago Grade Landfill has approximately 8,329,699 cubic yards (93 percent) of permitted capacity remaining and is expected to remain in operation until the year 2042, while the Paso Robles Landfill has approximately 5,190,000 cubic yards (80 percent) of permitted capacity remaining and is expected to remain in operation until the year 2051. If Proposed Project construction were to encounter soils contaminated with petroleum or other hazardous materials, this would require disposal in either the Camp Roberts Landfill or Kettleman Hills Facility, both of which have adequate capacity. These landfills would be able to accommodate the Proposed Project's solid waste disposal needs and the existing infrastructure capacity would not be exceeded. As a result, this impact would be **less than significant.**

Impact UTL-5: Failure to comply with federal, state, and local management and reduction statutes and regulations related to solid waste – *Less than Significant*

Existing state laws related to solid waste include the CIWMA (see Section 4.19.3), which sets per capita disposal targets to encourage recycling/landfill diversion. The County of San Luis Obispo's Ordinance No. 2008-3 (see Appendix A) requires that certain types of facilities and land uses recycle recyclable materials, but this ordinance would not apply to utility infrastructure. While San Luis Obispo County is currently not meeting its per capita disposal rate targets under CIWMA, the Proposed Project's solid waste generation would be almost entirely construction-related and short-term. The Applicants would recycle waste materials from the Proposed Project to the extent feasible, but the disposal of construction wastes at the area landfills would not substantially affect the County's CIWMA disposal rates. Given that the Proposed Project would generate minimal solid waste material during operation, it would not violate existing laws and regulations related to solid waste over the long-term. Therefore, this impact would be **less than significant.**

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

Given that the reasonably foreseeable distribution components would be installed primarily along existing rural roads and highways, they would be unlikely to encounter buried existing utilities during construction. The distribution poles would require relatively minimal excavation, as they would be direct-bury poles, and the additional 21/12 kV pad-mounted transformers also would require minimal excavation. Regardless, the Applicants would be required to comply with CCR Section 1541, which requires excavators to determine the approximate locations of subsurface installations prior to excavating and avoid impacts to subsurface installations, thereby reducing potential impacts to buried utilities that may occur within the disturbance area. No known above-ground utilities exist within the footprint of the reasonably foreseeable distribution components that would require relocation.

The reasonably foreseeable distribution components would require relatively minimal water use during construction, which could be accommodated by existing sources (see discussion under Impact UTL-1). Wastewater service demand would be negligible during construction, as it would be limited primarily to wastewater generated by construction workers using the restroom. Once constructed, the reasonably foreseeable distribution components would not require any water

or wastewater service. Therefore, the reasonably foreseeable distribution components would not require construction of new or expanded water or wastewater facilities, and water supplies and wastewater treatment capacity would be more than adequate. The reasonably foreseeable distribution components would not create substantial new impervious surfaces and would not be connected to any stormwater drainage system. The reasonably foreseeable distribution components also would not require construction of any new or expanded natural gas or telecommunications facilities (the reasonably foreseeable distribution components themselves are new electric power utilities, whose environmental impacts are evaluated throughout this DEIR).

Similarly, ultimate buildout of the Estrella Substation would be anticipated to require minimal water or wastewater service. Given that the ultimate buildout activities would take place primarily within or immediately adjacent to the already-constructed Estrella Substation, they would have limited potential to encounter buried utilities. Ultimate buildout of the substation would not create substantial new impervious surface areas, as the additional equipment would be added largely within the Estrella Substation footprint. As discussed in Chapter 2, *Project Description,* the routes of any additional distribution feeders or 70 kV power lines that could be established through the ultimate substation buildout are not known; thus, the effects of constructing and operating these facilities are speculative. Therefore, overall, impacts under significance criteria A, B, and C would be **less than significant.**

Construction of the reasonably foreseeable distribution components and ultimate buildout of Estrella Substation would generate small amounts of solid waste, including vegetation that may be cleared from pole work areas and soil unsuitable for pole installation areas. During operation, the reasonably foreseeable distribution components and ultimate substation buildout could generate small amounts of solid waste due to the need to periodically replace parts and clear vegetation for maintenance of clearances for fire safety. These amounts of solid waste would be less than what would be generated by the Proposed Project and existing landfills in the area have adequate remaining capacity to accommodate these needs (see discussion under Impact UTL-4). Due to the small and largely temporary volume of solid waste that may be generated, some of which may be composted or recycled, the reasonably foreseeable distribution components and ultimate substation buildout would not affect the County's ability to meet its CIWMA disposal rate targets, or otherwise fail to comply with statutes and regulations related to solid waste. Therefore, impacts under significance criteria D and E would be **less than significant.**

Alternatives

No Project Alternative

Under the No Project Alternative, no new substation or 70 kV power line would be constructed. Therefore, there would be no potential for direct impacts to buried existing utilities during construction, and there would be no demand for water, wastewater, or solid waste disposal service during construction or operation. Therefore, **no impact** would occur.

Alternative SS-1: Bonel Ranch Substation Site

The Alternative SS-1 site is located in a rural area of San Luis Obispo County on an agricultural field, where it would be unlikely to encounter buried utilities during construction. Nevertheless,

the Applicants would be required to comply with CCR Section 1541, which requires excavators to determine the approximate locations of subsurface installations prior to excavating, and avoid impacts to subsurface installations, thereby reducing potential impacts to buried utilities that may occur within the disturbance area. No known above-ground utilities exist within the footprint of Alternative SS-1 that would require relocation.

The substation at the Alternative SS-1 site would require roughly the same amount of water as the proposed Estrella Substation (8.3 million gallons) during construction, which could be accommodated by existing sources (see discussion under Impact UTL-1). Wastewater service demand would be minimal during construction, as it would be limited primarily to wastewater generated by construction workers using the restroom. Once constructed, the substation would not require any water or wastewater service. Therefore, it would not require construction of new or expanded water or wastewater facilities, and water supplies and wastewater treatment capacity would be more than adequate. The substation under Alternative SS-1 would create the same amount of new impervious surface (2 acres) as the Estrella Substation and would include the same stormwater management features (i.e., weir and skimmer device). No existing stormwater drainage system serves this area and stormwater from the substation would be discharged to adjacent pervious ground surfaces. While the substation itself would constitute new electric power utility infrastructure, and would include telecommunication infrastructure, it would not require or result in construction of any additional utility infrastructure (e.g., natural gas). Therefore, impacts under significance criteria A, B, and C would be **less than significant.**

Construction of the substation under Alternative SS-1 would generate similar or slightly greater quantities of solid waste (due to the potential for unsuitable soils to be present near the Estrella River) compared to the proposed Estrella Substation. During operation, the substation would generate minimal amounts of solid waste related to routine maintenance activities. As discussed in Impact UTL-4, existing landfills in the area have adequate capacity; therefore, they would be able to serve the solid waste disposal needs of Alternative SS-1. Due to the largely temporary solid waste disposal needs of Alternative SS-1 (primarily construction-related), and considering that some of the waste may be composted or recycled, the substation under Alternative SS-1 would not affect the County's ability to meet its CIWMA disposal rate targets, or otherwise fail to comply with statutes and regulations related to solid waste. Therefore, impacts under significance criteria D and E would be **less than significant.**

Alternative PLR-1A: Estrella Route to Estrella Substation

The Alternative PLR-1A alignment would pass through primarily rural areas of San Luis Obispo County (e.g., agricultural areas north of Paso Robles Municipal Airport), where it would be unlikely to encounter buried utilities during construction. Nevertheless, the Applicants would be required to comply with CCR Section 1541, which requires excavators to determine the approximate locations of subsurface installations prior to excavating, and avoid impacts to subsurface installations, thereby reducing potential impacts to buried utilities that may occur within the disturbance area. No known above-ground utilities exist within the footprint of Alternative PLR-1A that would require relocation.

Due its longer length (approximately 6.5 miles longer), construction of the power line under Alternative PLR-1A would require slightly more water (2.8 million gallons) than the Proposed Project's 70 kV power line (2 million gallons). As discussed in Impact UTL-1, this water use could be accommodated by existing sources. Wastewater service demand would be minimal during

construction, as it would be limited primarily to wastewater generated by construction workers using the restroom. Once constructed, the power line under Alternative PLR-1A would not require any water or wastewater service. Therefore, it would not require construction of new or expanded water or wastewater facilities, and water supplies and wastewater treatment capacity would be more than adequate. The power line under PLR-1A would create minimal amounts of new impervious surface associated with new pole foundations and would not require stormwater collection service or otherwise result in the need to construct new or expanded stormwater facilities. The new power line itself would constitute new electric power utility infrastructure (whose environmental effects are evaluated throughout this DEIR), but it would not require or result in construction of any additional utility infrastructure (e.g., natural gas). Therefore, impacts under significance criteria A, B, and C would be **less than significant.**

Construction of the power line under Alternative PLR-1A would likely generate greater quantities of solid waste (due to the additional length of the power line and associated increased excavation for pole foundations and vegetation clearing for pole work areas) compared to the Proposed Project's 70 kV power line. During operation, the power line would generate minimal amounts of solid waste related to routine maintenance activities. As discussed in Impact UTL-4, existing landfills in the area have adequate capacity; therefore, these landfills would be able to serve the solid waste disposal needs of Alternative PLR-1A. Due to the largely temporary solid waste disposal needs of Alternative PLR-1A (primarily construction-related), and considering that some of the waste may be composted or recycled, the power line under Alternative PLR-1A would not affect the County's ability to meet its CIWMA disposal rate targets, or otherwise fail to comply with statutes and regulations related to solid waste. Therefore, impacts under significance criteria D and E would be **less than significant.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Like Alternative PLR-1A, the Alternative PLR-1C alignment would pass through primarily rural areas of San Luis Obispo County (e.g., agricultural areas north of Paso Robles Municipal Airport), where it would be unlikely to encounter buried utilities during construction. Nevertheless, the Applicants would be required to comply with CCR Section 1541, which requires excavators to determine the approximate locations of subsurface installations prior to excavating, and avoid impacts to subsurface installations, thereby reducing potential impacts to buried utilities that may occur within the disturbance area. No known above-ground utilities exist within the footprint of Alternative PLR-1C that would require relocation.

Due its longer length (approximately 6 miles longer), construction of the power line under Alternative PLR-1C would require slightly more water (2.7 million gallons) than the Proposed Project's 70 kV power line (2 million gallons). As discussed in Impact UTL-1, this water use could be accommodated by existing sources. Wastewater service demand would be minimal during construction, as it would be limited primarily to wastewater generated by construction workers using the restroom. Once constructed, the power line under Alternative PLR-1C would not require any water or wastewater service. Therefore, it would not require construction of new or expanded water or wastewater facilities, and water supplies and wastewater treatment capacity would be more than adequate. The power line under PLR-1C would create minimal amounts of new impervious surface associated with new pole foundations and would not require stormwater collection service or otherwise result in the need to construct new or expanded stormwater facilities. The new power line itself would constitute new electric power utility infrastructure (whose environmental effects are evaluated throughout this DEIR), but it would

not require or result in construction of any additional utility infrastructure (e.g., natural gas). Therefore, impacts under significance criteria A, B, and C would be **less than significant.**

Construction of the power line under Alternative PLR-1C would likely generate greater quantities of solid waste (due to the additional length of the power line and associated increased excavation for pole foundations and vegetation clearing for pole work areas) compared to the Proposed Project's 70 kV power line. During operation, the power line would generate minimal amounts of solid waste related to routine maintenance activities. As discussed in Impact UTL-4, existing landfills in the area have adequate capacity; therefore, these landfills would be able to serve the solid waste disposal needs of Alternative PLR-1C. Due to the largely temporary solid waste disposal needs of Alternative PLR-1C (primarily construction-related), and considering that some of the waste may be composted or recycled, the power line under Alternative PLR-1C would not affect the County's ability to meet its CIWMA disposal rate targets, or otherwise fail to comply with statutes and regulations related to solid waste. Therefore, impacts under significance criteria D and E would be **less than significant.**

Alternatives PLR-3: Strategic Undergrounding (Both Options)

The 1.2-mile undergrounding segment under Alternative PLR-3 would be installed within existing roads and adjacent areas within the Golden Hill Industrial Park area of Paso Robles. Both undergrounding options (Option 1 and 2) would involve trenching within Germaine Way and Golden Hill Road, but Option 1 would also follow Wisteria Lane, while Option 2 would follow the Proposed Project 70 kV alignment. As such, both options would have potential to encounter buried utilities (e.g., sewer, water, natural gas, etc.) within these existing roadways, although Option 1 would have increased potential. Nevertheless, PG&E's preliminary design for Alternative PLR-3, which considered potential buried utilities along the alignments, indicated that it is feasible and that existing utilities should be able to be avoided (or possibly relocated as part of the alternative). As discussed in previous impact discussions, the Applicants would be required to comply with CCR Section 1541, which requires excavators to determine the approximate locations of subsurface installations prior to excavating, and avoid impacts to subsurface installations, thereby reducing potential impacts to buried utilities that may occur within the disturbance area. It is possible that existing stormwater drainage facilities adjacent to Golden Hill Road (see description in Section 4.10, "Hydrology and Water Quality") could be temporarily impacted during construction of Alternative PLR-3, but these utilities would be restored following construction.

Construction of Alternative PLR-3 would require more water (1,702,600 gallons) during construction than the same segment of the Proposed Project's 70 kV power line (2,000,000 gallons for whole alignment). As discussed in Impact UTL-1, however, this amount of water use could be accommodated by existing sources. Wastewater service demand would be minimal during construction, as it would be limited primarily to wastewater generated by construction workers using the restroom. Once constructed, the power line under Alternative PLR-3 would not require any water or wastewater service. Therefore, it would not require construction of new or expanded water or wastewater facilities, and water supplies and wastewater treatment capacity would be more than adequate. The power line under Alternative PLR-3 would be largely underground (except for the transition stations) and thus would not generate stormwater. The transition stations at either end of the Alternative PLR-3 alignment would create approximately 1 acre of total new impervious surface and would not be connected to the municipal stormwater system. The new power line itself would constitute new electric power

utility infrastructure (whose environmental effects are evaluated throughout this DEIR), but it would not require or result in construction of any additional utility infrastructure (e.g., natural gas). Therefore, impacts under significance criteria A, B, and C would be **less than significant.**

Construction of the power line under Alternative PLR-3 would likely generate greater quantities of solid waste (due to the additional excavation/trenching activities) compared to the same segment of the Proposed Project's 70 kV power line. During operation, the power line would generate minimal amounts of solid waste related to routine maintenance activities. As discussed in Impact UTL-4, existing landfills in the area have adequate capacity; therefore, these landfills would be able to serve the solid waste disposal needs of Alternative PLR-3. Due to the largely temporary solid waste disposal needs of Alternative PLR-3 (primarily construction-related), and considering that some of the waste may be composted or recycled, the power line under Alternative PLR-3 would not affect the County's ability to meet its CIWMA disposal rate targets, or otherwise fail to comply with statutes and regulations related to solid waste. Therefore, impacts under significance criteria D and E would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

The Alternative SE-1A site is located in a rural area of San Luis Obispo County on an agricultural field, where it would be unlikely to encounter buried utilities during construction. Nevertheless, the Applicants would be required to comply with CCR Section 1541, which requires excavators to determine the approximate locations of subsurface installations prior to excavating, and avoid impacts to subsurface installations, thereby reducing potential impacts to buried utilities that may occur within the disturbance area. No known above-ground utilities exist within the footprint of Alternative SE-1A that would require relocation.

Construction of the substation at the Alternative SE-1A site would require roughly the same amount of water as the proposed Estrella Substation (8.3 million gallons), which could be accommodated by existing sources (see discussion under Impact UTL-1). Wastewater service demand would be minimal during construction, as it would be limited primarily to wastewater generated by construction workers using the restroom. Once constructed, the substation would not require any water or wastewater service. Therefore, it would not require construction of new or expanded water or wastewater facilities, and water supplies and wastewater treatment capacity would be more than adequate. The substation under Alternative SE-1A would create the same amount of new impervious surface (2 acres) as the Estrella Substation and would include the same stormwater management features (i.e., weir and skimmer device). Stormwater from the substation would be discharged to adjacent pervious ground surfaces or potentially to a roadside ditch that is apparent along El Pomar Drive. While the substation itself would constitute new electric power utility infrastructure, and would include telecommunication infrastructure, it would not require or result in construction of any additional utility infrastructure (e.g., natural gas). Therefore, impacts under significance criteria A, B, and C would be **less than significant.**

Construction of the substation under Alternative SE-1A would likely generate similar quantities of solid waste as the proposed Estrella Substation (given that it would involve similar excavation and vegetation clearing activities). During operation, the substation would generate minimal amounts of solid waste related to routine maintenance activities. As discussed in Impact UTL-4, existing landfills in the area have adequate capacity; therefore, they would be able to serve the solid waste disposal needs of Alternative SE-1A. Due to the largely temporary solid waste

disposal needs of Alternative SE-1A (primarily construction-related), and considering that some of the waste may be composted or recycled, the substation under Alternative SE-1A would not affect the County's ability to meet its CIWMA disposal rate targets, or otherwise fail to comply with statutes and regulations related to solid waste. Therefore, impacts under significance criteria D and E would be **less than significant.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

The Alternative SE-PLR-2 alignment would pass through primarily rural areas of San Luis Obispo County, where it would be unlikely to encounter buried utilities during construction, although the portion of the alignment north of Charolais Road would traverse urban areas of Paso Robles, where construction activities may be more likely to encounter buried utilities. As discussed previously, the Applicants would comply with CCR Section 1541, which requires excavators to determine the approximate locations of subsurface installations prior to excavating, and avoid impacts to subsurface installations, thereby reducing potential impacts to buried utilities that may occur within the disturbance area. No known above-ground utilities exist within the footprint of Alternative SE-PLR-2 that would require relocation.

Given its shorter length (approximately 4.8 miles shorter), construction of the power line under Alternative SE-PLR-2 would require less water (715,000 gallons) than the Proposed Project's 70 kV power line (2,000,000 gallons). As discussed in Impact UTL-1, this water use could be accommodated by existing sources. Wastewater service demand would be minimal during construction, as it would be limited primarily to wastewater generated by construction workers using the restroom. Once constructed, the power line under Alternative SE-PLR-2 would not require any water or wastewater service. Therefore, it would not require construction of new or expanded water or wastewater facilities, and water supplies and wastewater treatment capacity would be more than adequate. The power line under Alternative SE-PLR-2 would create minimal amounts of new impervious surface associated with new pole foundations and would not require stormwater collection service or otherwise result in the need to construct new or expanded stormwater facilities. The new power line itself would constitute new electric power utility infrastructure (whose environmental effects are evaluated throughout this DEIR), but it would not require or result in construction of any additional utility infrastructure (e.g., natural gas). Therefore, impacts under significance criteria A, B, and C would be **less than significant.**

Construction of the power line under Alternative SE-PLR-2 would likely generate lesser quantities of solid waste (due to the shorter length of the power line and associated reduced excavation for pole foundations and vegetation clearing for pole work areas) compared to the Proposed Project's 70 kV power line. During operation, the power line would generate minimal amounts of solid waste related to routine maintenance activities. As discussed in Impact UTL-4, existing landfills in the area have adequate capacity; therefore, these landfills would be able to serve the solid waste disposal needs of Alternative SE-PLR-2. Due to the largely temporary solid waste disposal needs of Alternative SE-PLR-2 (primarily construction-related), and considering that some of the waste may be composted or recycled, the power line under Alternative SE-PLR-2 would not affect the County's ability to meet its CIWMA disposal rate targets, or otherwise fail to comply with statutes and regulations related to solid waste. Therefore, impacts under significance criteria D and E would be **less than significant.**

Alternative BS-2: Battery Storage to Address the Distribution Objective

Illustrative FTM sites examined for purposes of this analysis are vacant parcels within the city of Paso Robles and rural areas of San Luis Obispo County. FTM Sites 1-4 are located within developed areas of the city, while FTM Sites 5-8 are located in more rural areas adjacent to the CAL FIRE Air Attack Base and adjacent to area substations. Given that illustrative sites are vacant and the FTM BESS construction activities would likely not involve work within the sidewalk or roadway, it is unlikely that buried utilities would be encountered during excavation (several buried utility lines are known to occur on the western portion of FTM Site 1, but these should be able to be avoided through BESS design and placement). Nevertheless, the Applicants would comply with CCR Section 1541, which requires excavators to determine the approximate locations of subsurface installations prior to excavating, and avoid impacts to subsurface installations, thereby reducing potential impacts to buried utilities that may occur within the disturbance area.

Construction water use for the FTM BESSs under Alternative BS-2 is not currently known, but is anticipated to be less than the Proposed Project's construction water demand of 10.3 million gallons. Even if the construction water demand were to exceed this amount, the discussion under Impact UTL-1 indicates that water supplies are not substantially constrained in the Paso Robles area. Thus, construction water use of Alternative BS-2 should be accommodated by existing sources. Wastewater service demand would be minimal during construction of the FTM BESSs, as it would be limited primarily to wastewater generated by construction workers using the restroom. Once constructed, the BESSs would not require any water or wastewater service (they would be operated remotely, with no staff permanently on site). Therefore, Alternative BS-2 would not require construction of new or expanded water or wastewater facilities, and water supplies and wastewater treatment capacity would be adequate.

The FTM BESSs under Alternative BS-2 would create some amount of new impervious surface (this would be based on the ultimate size of the BESSs, which would be determined by future load growth). Of those example FTM sites examined in the DEIR, FTM Sites 5, 6, and 8 would not be served by stormwater drainage systems, while FTM Sites 1-4 and 7 could discharge stormwater to municipal systems. Given the size of the example FTM sites and the likely sizes of BESSs needed to address the Distribution Objective, the stormwater generated would not be sufficient to require construction of new or expanded municipal facilities. While the BESSs themselves would constitute new electric power utility infrastructure, they would not require or result in construction of any additional utility infrastructure (e.g., natural gas). The third-party DER provider selected via the DIDF would be required to follow all local design, siting, and permitting requirements.

Construction of the FTM BESSs under Alternative BS-2 would likely generate reduced quantities of solid waste compared to the proposed Estrella Substation. Although sizes of FTM BESSs are unknown and would depend on future load conditions, FTM BESSs would likely be smaller than the substation and involve less excavation and vegetation clearing. During operation, the FTM BESSs would generate minimal amounts of solid waste related to routine maintenance activities. As discussed in Impact UTL-4, existing landfills in the area have adequate capacity; therefore, they should be able to serve the solid waste disposal needs of Alternative BS-2. Due to the largely temporary solid waste disposal needs of Alternative BS-2 (primarily construction-related), and considering that some of the waste may be composted or recycled, the FTM BESSs

under Alternative BS-2 would not affect the County's ability to meet its CIWMA disposal rate targets, or otherwise fail to comply with statutes and regulations related to solid waste.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage

Given that individual BTM solar and battery storage facilities would be installed primarily within or on existing buildings, they would have little potential to adversely affect existing utilities. These construction projects would each be relatively minor and, even when considered in the aggregate, would not be expected to use large amounts of water or generate substantial quantities of solid waste. In certain instances, where individual BTM facilities may be installed in areas of existing parcels that are currently undeveloped, this may require some grading and other earthmoving activities that could generate materials requiring disposal at a landfill, but the quantities of material generated during individual BTM facility construction would likely not be substantial. Once operational, BTM solar and BESS facilities would not require water, wastewater, or solid waste disposal services and no staff would be located permanently on site.

Given the relatively minimal quantities of water that would likely be required for BTM facility construction, water sources in the region would be adequate to provide the needed supplies. Landfills in the area also would have available capacity to accept solid waste generated from construction and operation of individual BTM facilities under Alternative BS-3 (expected to be minimal). For any BTM facilities that would require grading and excavation in areas that could have underground utilities, the construction contractor would need to comply with CCR Section 1541 to determine the approximate locations of subsurface installations and minimize impacts and avoid impacts to subsurface installations.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

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4.20 Wildfire

4.20.1 Introduction

This section presents the environmental and regulatory setting related to wildfire, and evaluates the potential wildfire impacts associated with the Proposed Project, reasonably foreseeable distribution components, and alternatives. Potential impacts are evaluated in light of existing laws and regulations governing wildfire and the existing physical environmental setting.

4.20.2 Regulatory Setting

Federal Laws, Regulations, and Policies

The National Strategy

Pursuant to the 2009 Federal Land Assistance, Management, and Enhancement Act (FLAME Act), the U.S. Department of Agriculture and U.S. Department of the Interior undertook a process to develop a national cohesive wildland fire management strategy to comprehensively address wildland fire management across all lands in the U.S. The National Strategy recognizes and accepts fire as a natural process necessary for the maintenance of many ecosystems and strives to reduce conflicts between fire-prone landscapes and people (U.S. Department of Agriculture and U.S. Department of the Interior 2014). Specifically, the National Strategy identifies the following primary goals:

- **Restore and maintain landscapes:** Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
- **Fire adapted communities:** Human populations and infrastructure can withstand a wildfire without loss of life and property.
- **Wildfire response:** All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.

State Laws, Regulations, and Policies

2018 Strategic Fire Plan for California

The Strategic Fire Plan, developed by the State Board of Forestry and Fire Protection, provides direction and guidance to the CAL FIRE and its 21 field units. The 2018 Plan sets forth a number of goals focused on fire prevention, natural resource management, and fire suppression efforts, which are listed here (CAL FIRE 2018):

a. Improve the availability and use of consistent, shared information on hazard and risk assessment;

b. Promote the role of local planning processes, including general plans, new development, and existing developments, and recognize individual landowner/homeowner responsibilities;

c. Foster a shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as Community Wildfire Protection Plans;

d. Increase awareness and actions to improve fire resistance of man-made assets at risk and fire resilience of wildland environments through natural resource management;

e. Integrate implementation of fire and vegetative fuels management practices consistent with the priorities of landowners or managers;

f. Determine and seek the needed level of resources for fire prevention, natural resource management, fire suppression, and related services; and

g. Implement needed assessments and actions for post-fire protection and recovery.

Community Wildfire Prevention & Mitigation Report

The Community Wildfire Prevention & Mitigation Report was prepared by CAL FIRE in response to Executive Order N-05-19, which directed CAL FIRE, in consultation with other state agencies and departments, to recommend immediate, medium and long-term actions to help prevent destructive wildfires, with a specific focus on vulnerable communities and populations in the state (CAL FIRE 2019). Based on local fire plans developed by CAL FIRE Units, CAL FIRE identified 35 priority projects for immediate implementation to help reduce public safety risk for over 200 communities. Projects include removal of hazardous dead trees, vegetation clearing, creation of fuel breaks and community defensible spaces, and creation of ingress and egress corridors. However, none of the identified priority projects are located within the Paso Robles vicinity (CAL FIRE 2019). The Community Wildfire Prevention & Mitigation Report also identifies near-term administrative, regulatory and policy actions to address community vulnerability and wildfire fuel buildup through rapid deployment of resources.

Wildfires and Climate Change: California's Energy Future

Wildfires and Climate Change: California's Energy Future is a report from the Governor's Strike Force that describes the steps the state must take to reduce the incidence and severity of wildfires (Governor Newsom's Strike Force 2019). Among its objectives include:

- assuring access to safe, reliable and affordable power;
- reducing the severity of wildfires through continued investments in fire mitigation and vegetation management;
- implementing technologies to identify and respond more quickly to wildfires;
- reducing the number of utility-sparked wildfires through investments in safety, prevention, grid hardening, and vegetation management around electrical lines; and
- facilitating fair and prompt treatment for wildfire victims and allocating the burden of wildfire damage responsibly and fairly across all stakeholders.

The report evaluates the current system of allocating wildfire damage costs and proposes several new concepts, including a liquidity-only fund; changing strict liability to a fault-based standard, and a wildfire fund (Governor Newsom's Strike Force 2019). The report also discusses the CPUC's current role as the regulator of the utilities in California and finds that the CPUC should expand its safety expertise, overhaul its decision-making processes to more effectively integrate safety considerations, and take other actions to better oversee the utilities with respect to wildfire safety (Governor Newsom's Strike Force 2019).

California Fire Code

The California Fire Code (24 CCR Part 9) establishes minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. Chapter 33 of the Code contains requirements for fire safety during construction and demolition activities, such as development of a pre-fire plan in coordination with the fire chief; maintaining vehicle access for firefighting at construction sites, and requirements related to safe operation of internal combustion engine construction equipment.

CAL FIRE Wildland Fire Management

CAL FIRE implements the Vegetation Management Program (VMP), which uses prescribed fire, and some mechanical means, for addressing wildland fire fuel hazards and other resource management issues on SRAs (CAL FIRE 2020a). The VMP is derived from SB 1704 and is codified in 14 CCR, Chapter 9.8, Sections 1560 to 1569.6, as well as California PRC Sections 4461 to 4473, 4475 to 4480, and 4491 to 4494. The VMP allows private landowners to enter into a contract with CAL FIRE to use prescribed fire to accomplish a combination of fire protection and resource management goals (CAL FIRE 2020a). In December, 2019, CAL FIRE certified the California Vegetation Treatment Program EIR (Office of Governor Gavin Newsom 2019), which evaluated potential environmental impacts of CAL FIRE's various treatment methods for controlling vegetation and wildland fire fuels under its VMP.

Fire Hazard Severity Zone Mapping

CAL FIRE develops maps depicting Fire Hazard Severity Zones (FHSZs) for SRAs and Local Responsibility Areas (LRAs). A FHSZ is a mapped area that designates zones (based on factors such as fuel, slope, and fire weather) with varying degrees of fire hazard (i.e., moderate, high, and very high) (CAL FIRE 2020b). FHSZ maps evaluate wildfire hazards, which are physical conditions that create a likelihood that an area will burn over a 30- to 50-year period. They do not take into account modifications such as fuel reduction efforts (CAL FIRE 2020b). FHSZs are meant to help limit wildfire damage to structures through planning, prevention, and mitigation activities/requirements that reduce risk (CAL FIRE 2020b).

California Public Resources Code Requirements for Wildland Fire Safety

The California PRC includes fire safety regulations restricting the use of certain equipment that could produce sparks or flames, and specifies requirements for the safe use of gasoline-powered tools in fire hazard areas. The following requirements apply to construction activities at any sites with forest-, brush-, or grass-covered land:

a. Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (PRC Section 4442).

b. Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (PRC Section 4428).

c. On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire-suppression equipment (PRC Section 4427).

d. On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines must not be used within 25 feet of any flammable materials (PRC 4431).

California Public Utilities Commission General Order 95: Rules for Overhead Electric Line Construction

CPUC G.O. 95 (CPUC 2020a) specifies requirements for overhead transmission line design, construction, and maintenance, including requirements to avoid or minimize potential safety hazards. These requirements include standards for vegetation management and maintenance of minimum vegetation clearances from high-voltage lines to minimize potential fire hazard. These minimum clearances must be maintained through activities such as tree trimming prior to construction and throughout operation and maintenance of transmission lines.

California Public Utilities Commission Fire-Threat Mapping and High Fire-Threat District Requirements

The CPUC's Fire-Threat Area Map depicts areas where there is an elevated risk for power line fires igniting and spreading rapidly, thus requiring stricter fire-safety regulations (CPUC 2018, 2020b). The Fire-Threat Area Map includes the following fire threat categories:

- **Tier 2** consists of areas where there is an elevated risk for destructive utility-associated wildfires.

- **Tier 3** consists of areas where there is an extreme risk for destructive utility-associated wildfires.

Tier 2 and 3 areas, along with Zone 1, consisting of Tier 1 High Hazard Zones (HHZs) on the map of Tree Mortality HHZs prepared by U.S. Forest Service and CAL FIRE, make up the High Fire-Threat District (HFTD) identified in CPUC Decision 17-12-024. The HFTD is subject to increased requirements under G.O. 95, including requirements to prioritize correction of safety hazards in the HFTD, maintaining stricter Case 14 vegetation clearances, and annual patrol inspections of overhead electric utility distribution facilities in rural Tier 2 and 3 areas of the HFTD, among others (CPUC 2017).

Utility Wildfire Mitigation Plans

Pursuant to SB 901, since 2018, the CPUC has required electrical utilities to submit Wildfire Mitigation Plans (WMPs) assessing the level of wildfire risk within their service areas and outlining their plans to address this risk. ABs 1054 and 111 have subsequently provided for the WMP review and oversight process at the CPUC to be handled through the newly created Wildfire Safety Division (WSD) (CPUC 2019). WSD and Safety Enforcement Division (SED) staff determine whether or not the actions proposed by each utility are appropriate to address the level of risk identified and whether the plan will put the utility on a path to achieving the Commission's long-term wildfire risk reduction goals (CPUC 2019). WSD and SED staff instituted updated WMP Guidelines for 2020. The Proposed Project Applicants, HWT and PG&E, have both submitted WMPs for 2020, which have been approved with conditions by the CPUC (CPUC 2020c) in line with those updated 2020 WMP Guidelines.

Pursuant to California Public Utilities Code Chapter 6, Wildfire Mitigation, Section 8386, PG&E and HWT annually prepare and submit their WMPs to WSD[1] for review and approval. The WMPs demonstrate the commitment of PG&E and HWT to control wildfire risk using industry best practices and best-available tools, including asset management, vegetation management, situational awareness, weather forecasting, and system hardening. The final, 2020 PG&E and HWT wildfire mitigation plans are available here: https://www.cpuc.ca.gov/wildfiremitigationplans.

Fire Prevention Standards for Electric Utilities

The Fire Prevention Standards for Electric Utilities (14 CCR, Section 1250-1258) provide definitions, maps, specifications, and clearance standards for projects in SRAs. Similar to CPUC G.O. 95, 14 CCR Section 1254 specifies minimum vegetation clearances around electric transmission and distribution facilities. These firebreak clearances are applied within a 10-foot radius from any pole or tower subject to the requirements, and require the following:

a) At ground level: remove flammable materials, including but not limited to, ground litter, duff and dead or desiccated vegetation that will allow fire to spread, and;

b) From 0 to 8 feet above ground level: remove flammable trash, debris or other materials, grass, herbaceous and brush vegetation. All limbs and foliage of living trees shall be removed up to a height of 8 feet.

c) From 8 feet to the horizontal plane of the highest point of conductor attachment: remove dead, diseased or dying limbs and foliage from living sound trees and any dead, diseased or dying trees in their entirety.

[1] In 2019, the CPUC initiated a project to create a vision, strategy, and roadmap to outline its efforts to systematically reduce the risk of ignition of wildfires by utility infrastructure. A new WSD was established pursuant to California Public Utilities Code Section 326 to oversee and enforce compliance with wildfire safety requirements.

4.20.3 Environmental Setting

In this DEIR, a wildfire is defined as an uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures. Wildfires may occur due to human activity (e.g., arson, campfire, debris burns) or natural events (e.g., lightning). Among the primary factors that impact wildfire intensity and behavior include weather (e.g., wind and humidity), fuel conditions (e.g., vegetation type and age, accumulation of dead material, etc.), and topography (e.g., steep terrain).

Location and Site Characteristics

The Proposed Project would span both unincorporated areas of the county as well as the city of Paso Robles. The proposed Estrella Substation would be located on approximately 15 acres of land within an existing vineyard. The area immediately north of Union Road is irrigated agriculture and there are existing 230 and 500 kV transmission lines immediately north of the proposed substation site. South of Union Road in the area of the proposed Estrella Substation site, there is some undeveloped land (i.e., grassland, scattered oak trees) as well as agricultural land and scattered residences. The topography of the Estrella Substation site is moderately sloped with rolling hills in the vicinity. From the substation site, the proposed 70 kV power line runs west primarily through irrigated agricultural lands before turning north/northwest and traversing through the city of Paso Robles, ultimately meeting the existing 70 kV power line between San Miguel and Paso Robles substations. Portions of the 70 kV power line alignment include residential, commercial, and light industrial land uses. The reasonably foreseeable distribution components pass primarily through agricultural lands and along existing road rights-of-way.

The alternative substation sites under consideration (Alternative SS-1 and Alternative SE-1A) have elevated wildfire risk compared to the proposed Estrella Substation site due to the presence of additional vegetative fuel in these areas. Specifically, the Alternative SS-1 site is located adjacent to the Estrella River corridor, which has riparian vegetation that may become dry during the fire season. The Alternative SE-1A site similarly is adjacent to unmanaged oak woodland areas that may provide a greater amount of vegetative fuel compared to the amount of potential fuel adjacent to the Estrella Substation site. As described further below, both of these sites are located within HFHSZs. Both power line routing alternatives (Alternative PLR-1A and PLR-1C) would pass through largely agricultural areas, although portions of these routes would border areas that are undeveloped grassland or oak woodland. In particular, Alternative PLR-1C MRV 1 would follow Estrella Road, which borders the Estrella River corridor.

Alternative PLR-3 would follow the Proposed Project 70 kV route (or deviate slightly from the proposed route for Option 1). This area of the proposed 70 kV route has industrial uses as well as existing single-family residential development and recreational uses. The northern portion of both Alternative PLR-3 route options passes through areas of relatively undeveloped blue oak woodlands. The Alternative SE-PLR-2 route would follow the existing 230/500 kV transmission line corridor northeasterly out of Templeton Substation for approximately 2 miles, then veer to the northwest and northerly for approximately 3 miles, passing through areas of agricultural and rural residential development, including areas of grassland and oak woodland.

All of the example FTM BESS sites that are considered for analysis purposes for Alternative BS-2 are vacant parcels or portions of parcels. FTM Sites 1 through 4 are located within areas of existing urban development, while FTM Site 5 is located adjacent to the CAL FIRE Air Attack Base (Figure 4.9-2) in an area of grassland within surrounding agricultural development. The example FTM Sites 6 through 8 are each located adjacent to existing regional substations.

Fire Zones

As discussed in Section 4.9, "Hazards and Hazardous Materials," and shown in Figure 4.9-2, the Proposed Project would be outside of any identified VHFHSZ or HFHSZ. The Proposed Project components would be located entirely within the LRA not designated as a VHFHSZ. However, the SRA HFHSZ is located across Union Road to the south of the proposed Estrella Substation site. Similarly, under the CPUC's fire threat mapping, none of the Proposed Project components would be located within Tier 2 (elevated) or Tier 3 (extreme) fire threat areas. The reasonably foreseeable distribution components would be located primarily outside of the HFHSZ, although one 21/12 kV pad-mounted transformer would be installed on the border of the HFHSZ (none of the components would be within Tier 2 or 3 fire threat areas).

As shown on Figure 4.9-2, several of the alternatives would be located within or on the border of a HFHSZ. Specifically, Alternatives SS-1 and SE-1A would be entirely located in the HFHSZ while the Alternative SE-PLR-2 alignment would be almost entirely located in the HFHSZ except the northern portion which is within the Paso Robles city limits. Portions of the Alternative PLR-1A and PLR-1C alignments would border the HFHSZ, while a small portion of Alternative PLR-1C would pass through the HFHSZ. The majority of the length of Alternative PLR-1C Minor Route Variation 1 would border the HFHSZ along Estrella Road. Example FTM Sites 1-5 and 7 considered for the analysis would be located within the LRA not mapped as VHFHSZ; however, FTM Sites 6 and 8 would be within the SRA HFHSZ. Alternative PLR-3 (both options) would both be located in the LRA non-VHFHSZ. None of the alternatives would be located in a CPUC-designated Tier 2 or 3 fire threat area (CPUC 2018).

Wildfire History in the Area

Although the immediate Proposed Project site is not identified as a high wildfire hazard area by CAL FIRE or the CPUC, the greater Paso Robles area and surrounding region have been prone to wildfire. Since 1913, there have been over 700 wildfires in the vicinity of Paso Robles and 10 of these fires have burned greater than 10,000 acres. Two wildfires have occurred within the city of Paso Robles limits: a 200-acre fire in 1994 and a 65-acre fire in July 2013 (City of Paso Robles 2016). The most damaging fire in the region in recent history was the Chimney Fire in August 2016, which burned more than 46,300 acres and destroyed 70 structures. This fire occurred south of Lake Nacimiento, approximately 20 miles northwest of the Proposed Project (CAL FIRE 2020c).

The Salinas Riverbed corridor, which runs through the city of Paso Robles, in particular has been susceptible to fire. In 2018, emergency response personnel responded to 115 fires in the riverbed corridor and 63 fires during the first half of 2019. Due to their proximity to critical city infrastructure, as well as residential and commercial properties, the City of Paso Robles proclaimed a local emergency related to the riverbed fires in July of 2019 (County of San Luis Obispo 2019).

4.20.4 Impact Analysis

Methodology

Impacts related to wildfire were evaluated qualitatively by considering aspects of the Proposed Project, reasonably foreseeable distribution components, and alternatives as they relate to applicable CEQA Guidelines Appendix G significance criteria (identified below) and the existing regulatory and environmental settings.

Criteria for Determining Significance

For the purposes of this analysis, the Proposed Project, reasonably foreseeable distribution components, or alternatives would result in a significant impact if they are located in or near SRAs or lands classified as VHFHSZs and one or more of the following criteria are met:

A. Substantially impair an adopted emergency response plan or emergency evacuation plan?

B. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

C. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

D. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Environmental Impacts

Proposed Project

Impact WF-1: Substantially impair an adopted emergency response plan or emergency evacuation plan – *Less than Significant with Mitigation*

Construction

While the Proposed Project would not be located in an SRA or on lands classified as a VHFHSZ, the proposed Estrella Substation and a portion of the new 70 kV power line segment are located adjacent to an SRA classified as an HFHSZ south of Union Road. As described in Section 4.9, "Hazards and Hazardous Materials," construction activities such as transport of vehicles and equipment into and out of the construction areas, off-hauling of material, and occasional operation of construction vehicles and equipment on public roadways have the potential to disrupt traffic flow along roads adjacent to or along the Proposed Project components/alignment. This disruption to traffic flow (e.g., congestion) and any required brief lane or road closures could impede emergency response vehicle access and movement and/or evacuation procedures in the event of a wildfire. This impact could substantially impair the ability to adequately implement the emergency response plans, goals, and policies identified in

Appendix A, including the County of San Luis Obispo Emergency Operations Plan and the Safety Elements in the County of San Luis Obispo and City of Paso Robles General Plans. Thus, Impact WF-1 is a significant impact.

Mitigation Measure TR-1 would require that the Proposed Project Applicants implement traffic control measures, including notification of emergency response agencies regarding any planned lane or road closures (refer to Section 4.17, "Transportation," for detailed discussion of the required measures). With implementation of Mitigation Measure TR-1, impacts on emergency response or emergency evacuation would be less than significant because emergency response agencies following the emergency response plans identified in Appendix A of this DEIR would be aware of accessible routes in case of a wildfire. Therefore, this impact would be **less than significant with mitigation**.

Operation

The Proposed Project would be operated remotely during the operation phase, with inspections and maintenance occurring infrequently. Once constructed, the Proposed Project would not have a permanent impact on the emergency response plans listed in Appendix A. None of the Proposed Project components would impede emergency response times by obstructing any public road right-of-way or vehicle movement. Given that the FAA has determined that the proposed 70 kV power line would not exceed FAA obstruction standards, this power line would not pose a significant hazard to aircraft that could respond to a wildfire in the SRA HFHSZ. Local residents in the area may use Union Road as an evacuation route, but the Proposed Project features would not hinder use of this road during an emergency. Therefore, this impact would be **less than significant**.

Impact WF-2: Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire – *Less than Significant*

As described above under Section 4.20.3, among the primary factors that impact wildfire intensity and behavior include weather (e.g., wind and humidity), fuel conditions (e.g., vegetation type and age, accumulation of dead material, etc.), and topography (e.g., steep terrain). As slope increases, the rate of wildfire spread increases. The most variable factor affecting wildfire behavior in the San Luis Obispo region is weather (City of Paso Robles 2016). Extreme weather, such as high temperatures and humidity, can lead to extreme wildfire activity. A secondary factor for the San Luis Obispo region is strong, offshore and hot winds known as the Santa Ana winds, also referred to as the Santa Lucia winds.

Construction

The Proposed Project topography ranges from relatively flat (0 to 1 percent slope) to relatively steep (greater than 50 percent slopes), with steepest grades (and the most susceptible to wildfire risks) generally occurring along the east bank of the Salinas River, along North and South River Road (i.e., along the reconductoring segments for the Proposed Project). As shown in Section 4.9, "Hazards and Hazardous Materials," the proposed substation and power line route are located near the HFHSZ; however, the proposed substation site and much of the power line route are currently developed for viticulture and devoid of brush or dry grass, reducing their ignition potential. Some parcels within 0.25 mile of the substation site are either ruderal grasslands or rangelands that, if left unmaintained under critical fire conditions

(e.g., prevailing winds, high temperatures), could present potential conditions for wildfire risks. Likewise, portions of the power line route and reconductoring segment would traverse some areas of oak woodlands, non-native grasslands, and other potentially flammable habitat types. Should construction activities occur on high-fire-risk days and during high fire danger times of the year, construction activities could result in wildfire ignition, and subsequent exposure to pollutant concentrations and/or the uncontrolled spread of wildfire.

Generally, other than initial vegetation clearing activities, Proposed Project construction activities would be confined to areas that have been cleared of vegetation, including access roads and work areas; therefore, these activities are not anticipated to exacerbate existing risks of wildfire. Vehicles and equipment would primarily use existing roads to access work areas, all of which would be cleared of brush to reduce fire potential. New access roads or access roads needing improvement would be cleared of vegetation when constructed. As discussed in Section 4.20.2, initial vegetation clearing activities would be subject to CAL FIRE Wildland Fire Management requirements included in the PRC for activities on sites with forest-, brush- or grass-covered lands, which include measures for reducing wildfire. Compliance with these requirements would reduce potential for accidental ignition of vegetative materials during the initial Proposed Project vegetation clearing activities, particularly on high fire risk days and during high fire danger times of the year.

Additionally, as described above, the Proposed Project Applicants and/or their contractors would be required to comply with the California Fire Code, including smoking only in designated areas, limiting ignition sources, and keeping appropriate fire-fighting equipment on site. Other sections of the California Fire Code would apply to any welding and hot work performed as part of the substation and power line construction. These requirements would serve to reduce ignition risks during construction activities and potentially allow for construction workers to quickly extinguish any incipient fires. Per the California Fire Code, Proposed Project construction activities also would need to provide for fire-fighting vehicle access to all construction sites, which would enable firefighters to effectively respond to and combat any fires at the construction sites.

Adherence to the above-described requirements would limit the potential for the Proposed Project to exacerbate existing conditions for wildfire risk, and reduce the potential for significant adverse impacts related to exposure to pollutant concentrations or the uncontrolled spread of wildfire. Therefore, impacts are **less than significant**.

Operation

The Proposed Project would not involve placement of people or habitable structures in areas where they would be exposed to pollutant concentrations from a wildfire. As mentioned above under Impact WF-1, once constructed, the Proposed Project would be operated remotely and no personnel would be located permanently on-site. During operation, the Proposed Project would not involve activities that would be anticipated to exacerbate wildfire risk, and thereby potentially expose residents in surrounding areas to wildfire hazards. Proposed Project operations may involve routine maintenance and repair activities involving use of internal-combustion engine construction equipment or flammable materials, but these activities would primarily be conducted within the fence line of the Estrella Substation, along maintained roadways, and within other paved areas. Routine operation and maintenance activities, per CPUC G.O. 95, would include vegetation clearing as needed to provide defensible space while

minimizing potential impacts from fires. In addition, a CAL FIRE Air Attack Base is located adjacent to the Paso Robles Municipal Airport (Figure 4.9-2), which would help ensure quick response time should a wildfire occur.

Operation of an electrified substation and new overhead 70 kV power lines in the Paso Robles area would inherently exacerbate the potential for wildfire risk above baseline conditions. With any electrified equipment, there is potential for accidental ignition of nearby vegetation, particularly during high fire hazard conditions/times of the year. Such an occurrence has potential to expose the surrounding community to pollutant concentrations and/or result in the uncontrolled spread of wildfire. In accordance with CPUC G.O. 95, the Proposed Project Applicants would be required to maintain acceptable clearances between the new/reconductored 70 kV power lines and any nearby trees or other vegetation to minimize the risk of the energized lines igniting wildfires. As noted above, the Estrella Substation would be located within an agricultural field not designated as a VHFHSZ or HFHSZ, where risk of wildfire would not be expected to be high, and the proposed 70 kV power line also would not pass through a VHFHSZ or HFHSZ. The PG&E and HWT wildfire mitigation plans would also be implemented. For these reasons, and due to the fact that the Proposed Project would not include habitable structures or occupants that could be exposed to pollutant concentrations from a wildfire, this impact would be **less than significant.**

Impact WF-3: Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment – *Less than Significant*

As described in Chapter 2, *Project Description*, the Proposed Project itself requires the installation and maintenance of power lines and other associated electrical infrastructure. As described under Impact WF-2, installation and maintenance of new overhead 70 kV power lines would inherently exacerbate the potential for wildfire risk above baseline conditions, particularly in those areas of the Project where the power line route is located near a HFHSZ. As described above, while Proposed Project construction activities would be primarily confined to areas that have been cleared of vegetation, and therefore, are not anticipated to exacerbate existing risks of wildfire; portions of the power line route and reconductoring segment would traverse potentially flammable habitat types such that under critical fire conditions (e.g., prevailing winds, high temperatures) installation could exacerbate potential for wildfire, resulting in significant impacts to the environment. Likewise, as described under Impact WF-2, maintenance of the power lines and associated electrical infrastructure involves use of internal-combustion engine construction equipment and/or flammable materials. While maintenance activities would primarily be conducted within roadways and other paved areas, if conducted under critical fire conditions maintenance activities could exacerbate potential for wildfire risks, resulting in significant impacts to the environment.

With any electrified equipment, there is potential for accidental ignition of nearby vegetation, particularly during high fire hazard conditions/times of the year. As described above, the Proposed Project Applicants would implement defensible space at the substation in coordination with CAL FIRE. Additionally, the Applicants would be required to maintain clearances between the power lines and vegetation per G.O. 95 requirements. Apart from the actions taken by the Applicants, which are evaluated as part of the Proposed Project, no other associated infrastructure that may exacerbate fire risk would need to be constructed or

maintained as a result of the Proposed Project. As such, this impact would be **less than significant**.

Impact WF-4: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes – *Less than Significant*

The Proposed Project would not include any habitable structures and all of the Proposed Project components, including the Estrella Substation and 70 kV power line transmission structures, would be operated remotely. Thus, generally the Proposed Project, particularly construction and operation of Estrella Substation, would not expose people to risks, such as downslope or downstream flooding or landslides, post-fire slope instability, or drainage changes. While the Proposed Project's new and reconductored 70 kV power line segments would traverse lands primarily under agricultural production or undeveloped, the segments do traverse rural residential and dense residential (reconductoring segment) land uses, whereby there are residences that could potentially be exposed to post wildfire-related risks. As described in Section 4.7, "Geology, Soils, Seismicity, and Paleontological Resources," slopes and soil composition vary along the new and reconductored 70 kV power line alignments, therefore the segments traverse areas of low, moderate, and high landslide risk, as well as varying conditions susceptible to flooding or post-fire slope instability. However, none of the 70 kV power line infrastructure is located directly within the SRA or on lands designated as VHFHSZ. The SRA HFHSZ is located adjacent to the proposed Estrella Substation site (across Union Road to the south); however, the substation is not located within Tier 2 (elevated) and Tier 3 (extreme) fire threat areas.

As discussed above under Impact WF-1 and 2, with any electrified equipment, there is potential for accidental ignition of nearby vegetation, particularly during high fire hazard conditions/times of the year. Should accidental ignition of nearby vegetation occur along those areas that traverse rural residential and dense residential land uses, and subsequent post-wildfire related hazards, such as downstream flooding, landslides, runoff, post-fire slope instability, or drainage changes occur, these impacts would be considered significant. However, as described in Section 4.9, "Hazards and Hazardous Materials," the construction and operation of the Proposed Project components would not substantially increase the risk of wildfire given (1) compliance with the PRC requirements related to construction fire safety in grass- or brush-covered areas; (2) California Fire Code requirements for construction and design of facilities to allow for fire apparatus access, and (3) G.O. 95 vegetation clearance requirements. With implementation of the above-described requirements, the potential for the Proposed Project to cause people or structures to be exposed to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, would be **less than significant**.

Reasonably Foreseeable Distribution Components and Ultimate Substation Buildout

Construction of the reasonably foreseeable distribution components would involve similar activities to the Proposed Project, although on a much smaller scale. In spite of the reduced scale, some activities could impact emergency vehicle response and mobility, as well as evacuation procedures. Given that the northern new distribution line segment would be installed within the SR 46 right-of-way, construction vehicles and equipment moving into and

out of the construction site, as well as any construction activities that may require temporary closure of one lane of traffic, could impact vehicle movement in the area. Although the majority of the reasonably foreseeable distribution components would be located in the non-VHFHSZ LRA, SR 46 is a major highway that may be used by CAL FIRE vehicles and equipment to access SRAs if a wildfire were to occur. If construction activities were to hinder CAL FIRE response or evacuation of residents from SRAs in the event of a wildfire, this would be a significant impact. The equipment and facilities associated with ultimate substation buildout would primarily be placed within the fence line of the already-constructed Estrella Substation and, therefore, would not result in substantive impacts to emergency vehicle response and mobility. Note that the routes of any future additional distribution feeders and/or 70 kV power lines that could be established through ultimate substation buildout are unknown, and thus any impacts associated with these facilities are speculative and not evaluated in this DEIR.

Mitigation Measure TR-1 requires the development of a site-specific traffic control plan during construction activities, including measures to minimize vehicle travel delays and potential roadway hazards. Implementation of Mitigation Measure TR-1 for the reasonably foreseeable distribution components would reduce potential impacts to a level that is less than significant. Once constructed, the reasonably foreseeable distribution components and ultimate substation buildout facilities would not affect emergency vehicle movement/response or evacuation procedures because they would be similar in nature to existing distribution facilities in the area and would not directly affect any roadways. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Construction and operation of the reasonably foreseeable distribution components, including installation of the 21/12 kV pad-mounted transformer, and ultimate buildout of Estrella Substation, would not be expected to substantially exacerbate wildfire risks, such that people would be exposed to pollutant concentrations from a wildfire, the uncontrolled spread of a wildfire, and/or people or structures would be exposed to significant risks (e.g., downslope or downstream flooding, landslides, post-fire slope instability, or drainage changes.) Construction and operation activities would be on a much smaller scale than that of the Proposed Project, and similar to the Proposed Project, would occur within areas under irrigated agriculture cultivation (generally a low fire risk land use) or road rights-of-way. Construction and operation activities would comply with the PRC wildland fire safety requirements for grass- and brush-covered lands, as well as the California Fire Code. Once constructed, the reasonably foreseeable distribution components and ultimate substation buildout facilities would need to comply with applicable vegetation clearance requirements (see Section 4.20.2; fire prevention standards for electric utilities) and would not be located in high fire risk areas or the SRA (apart from one pad-mounted transformer that would be located on the border of the SRA).Therefore, impacts under significance criteria B and D would be **less than significant.**

No new or additional infrastructure (e.g., roads, fuel breaks, or emergency water sources) would need to be installed or maintained as a result of the reasonably foreseeable distribution components and ultimate buildout of Estrella Substation that may exacerbate fire risk or result in temporary or ongoing impacts to the environment. Nevertheless, the reasonably foreseeable distribution and ultimate substation buildout components themselves would inherently exacerbate the potential for wildfire risk above baseline conditions. But, as described above, compliance with existing laws and regulations related to wildfire safety would reduce these potential risks. Therefore, impacts under significance criterion C would be **less than significant.**

Alternatives

No Project Alternative

Under the No Project Alternative, no substation or 70 kV power line would be constructed or operated and there would be no change from baseline conditions. While this would result in no new potential sources of ignition from construction activities or electrified components, it would continue the status quo where the regional transmission system would be susceptible to a N-1 or N-1-1 contingency (refer to Chapter 2 for discussion). It is reasonably expected that an N-1 or N-1-1 contingency would result in the loss of power to Paso Robles for an extended period of time. Such a scenario could hinder emergency response and evacuation efforts generally and particularly if the power loss were to occur at the same time as a wildfire. No feasible mitigation would be available to address this adverse effect. Therefore, impacts under significance criterion A would be **significant and unavoidable**.

The No Project Alternative would not include any construction activities or land uses that could cause or exacerbate any wildfire risks or conditions. Additionally, the No Project Alternative would not require any additional infrastructure or potentially expose people or structures to significant risks associated with wildfire or downslope effects. As a result, **no impact** would occur under significance criteria B, C, or D.

Alternative SS-1: Bonel Ranch Substation Site

The Alternative SS-1 site is located within the SRA HFHSZ and adjacent to grassland areas and the Estrella River corridor, which could provide fuel for a wildfire. Construction of Alternative SS-1 would have roughly the same potential to disrupt traffic and impair local emergency response as the Proposed Project, as vehicles and equipment would need to access the site from Estrella Road. Given that these impacts would occur within an SRA HFHSZ area, Alternative SS-1 would have greater potential to interfere with emergency vehicle access and movement and/or evacuation procedures during a wildfire. This would be a significant impact. Implementation of **Mitigation Measure TR-1** would require the development of a site-specific traffic control plan during construction of Alternative SS-1, including measures to minimize vehicle travel delays and potential roadway hazards, and would therefore, reduce potential adverse effects to a level that is less than significant. Once operational, the substation under Alternative SS-1 would not affect emergency response or evacuation procedures. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Should construction activities for Alternative SS-1 occur on high-fire-risk days and during high fire danger times of the year, construction activities could exacerbate existing conditions resulting in wildfire ignition and subsequent exposure to pollutant concentrations, uncontrolled spread of wildfire, and/or exposure of people or structures to significant risks, such as downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. These events would be considered a significant impact. As with the Proposed Project, construction of the substation at the Alternative SS-1 site would comply with PRC requirements for wildland fire safety in brush- or grass-covered areas, as well as California Fire Code requirements, which would minimize potential to ignite a wildfire during construction. Additionally, due to the site's location in the HFHSZ, implementation of **Mitigation Measure HAZ-1** would reduce the potential for exacerbating fire risks, and subsequent exposure to hazards and/or upsets, by requiring the preparation of a site-specific fire prevention and

management plan that addresses procedures for fire prevention during construction and operation activities. The fire prevention and management plan would include site-specific considerations for wildland fire safety during construction and operation, including design of the substation with defensible space and access for fire apparatus. With implementation of these measures, Alternative SS-1 would not substantially increase the risk of wildfire. Therefore, impacts under significance criteria B and D would be **less than significant with mitigation.**

No new roads, fire breaks, or related additional infrastructure would need to be installed or maintained as a result of Alternative SS-1. It is possible that a new emergency water supply (e.g., water tank) may be needed at the substation site, based on the outcome of the fire prevention and management plan development and coordination with CAL FIRE / County Fire Department. However, this would likely be no more than 10,000 to 20,000 gallons and could be accommodated by existing water sources in the area (see discussions in Section 4.10, "Hydrology and Water Quality"). The substation itself would be electrical infrastructure that would inherently exacerbate the potential for wildfire risk above baseline conditions and could subsequently result in temporary and ongoing impacts, which would be considered significant. But, as described above, implementation of **Mitigation Measure HAZ-1** would reduce the potential for exacerbating fire risks, and subsequent temporary or ongoing impacts to the environment. Therefore, impacts under significance criterion C would be **less than significant with mitigation.**

Alternative PLR-1A: Estrella Route to Estrella Substation

As described in Section 4.20.3, portions of the Alternative PLR-1A route directly border designated SRA HFHSZs. Alternative PLR-1A also is substantially longer than the Proposed Project 70 kV power line (approximately 6.5 miles longer). As such, there would be elevated overall wildfire hazard potential for Alternative PLR-1A compared to the Proposed Project.

Construction of Alternative PLR-1A would have potential to interfere with emergency vehicle access and movement and/or evacuation procedures during a wildfire such that local emergency response plans may be impaired. Construction vehicles and equipment may need to operate within public roadways and temporary lane or road closures are possible along the Alternative PLR-1A route. This disruption to traffic flow (e.g., congestion) and any required brief lane or road closures could impede emergency response vehicle access and movement and/or evacuation procedures in the event of a wildfire. This impact could substantially impair the ability to adequately implement the emergency response plans, goals, and policies identified in Appendix A, resulting in a significant impact. Implementation of **Mitigation Measure TR-1** would reduce these potential adverse effects to a level that is less than significant because emergency response agencies would be notified of any planned lane or road closures and would be able to identify accessible routes in case of a wildfire in advance of the approved project. Once operational, the 70 kV power line under Alternative PLR-1A would not be expected to affect emergency response or evacuation procedures. As discussed in Section 4.9, "Hazards and Hazardous Materials," the Alternative PLR-1A 70 kV power line would not conflict with FAA regulations and would not be expected to interfere with movement of CAL FIRE aircraft. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Should Alternative PLR-1A construction activities occur on high-fire-risk days and during high fire danger times of the year, construction activities could exacerbate existing conditions resulting in wildfire ignition and subsequent exposure to pollutant concentrations, uncontrolled spread of

wildfire, and/or exposure of people or structures to significant risks, such as downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. These events would be considered a significant impact. This is particularly true for portions of the Alternative PLR-1A route that would border the HFHSZ. As with the Proposed Project, construction of the 70 kV power line would comply with PRC requirements for wildland fire safety in brush- or grass-covered areas, as well as California Fire Code requirements, which would minimize potential to ignite a wildfire during construction. Additionally, since portions of Alternative PLR-1A directly border on/occur within the HFHSZ, **Mitigation Measure HAZ-1** would be implemented, which would require preparation and implementation of a fire prevention and management plan. The fire prevention and management plan would include site-specific considerations for wildland fire safety during construction and operation, including management of vegetation to ensure compliance with G.O. 95 clearance requirements. With implementation of these measures, Alternative PLR-1A would not substantially increase the risk of wildfire over baseline conditions. Additionally, the power line under Alternative PLR-1A would be operated remotely and would not place structures or people in areas where they could be exposed to pollutant concentrations from a wildfire or significant downslope or downstream flooding or landslides affects. Therefore, impacts under significance criteria B and D would be **less than significant with mitigation.**

No new or additional infrastructure (e.g., roads, fuel breaks, or emergency water sources) would need to be installed or maintained as a result of Alternative PLR-1A. The power line itself is associated electrical infrastructure that would inherently exacerbate the potential for wildfire risk above baseline conditions. Wildfire ignition could subsequently result in temporary and ongoing impacts, which would be considered significant. But, as described above, compliance with existing laws and regulations related to wildfire safety and implementation of **Mitigation Measure HAZ-1** would reduce the potential for exacerbating fire risks, and subsequent temporary or ongoing impacts to the environment. Therefore, impacts under significance criterion C would be **less than significant with mitigation.**

Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1

Alternative PLR-1C would be similar in length and would follow a similar route as Alternative PLR-1A, including bordering the SRA HFHSZ along portions of Wellsona Road. The Alternative PLR-1C route would also pass through the HFHSZ in exiting the Bonel Ranch Substation site and the Alternative PLR-1C Minor Route Variation 1 would border the HFHSZ along Estrella Road. As such, the alternative would have elevated overall wildfire hazard potential compared to the Proposed Project.

Construction of Alternative PLR-1C would have potential to interfere with emergency vehicle access and movement and/or evacuation procedures during a wildfire such that local emergency response plans may be impaired. Construction vehicles and equipment may need to operate within public roadways and temporary lane or road closures are possible along the Alternative PLR-1C route. This disruption to traffic flow (e.g., congestion) and any required brief lane or road closures could impede emergency response vehicle access and movement and/or evacuation procedures in the event of a wildfire. This impact could substantially impair the ability to adequately implement the emergency response plans, goals, and policies identified in Appendix A, resulting in a significant impact. Implementation of **Mitigation Measure TR-1** would reduce these potential adverse effects to a level that is less than significant because emergency response agencies would be notified of any planned lane or road closures and would be able to

identify accessible routes in case of a wildfire in advance of the approved project. Once operational, the 70 kV power line under Alternative PLR-1C would not be expected to affect emergency response or evacuation procedures. As discussed in Section 4.9, "Hazards and Hazardous Materials," the Alternative PLR-1C 70 kV power line would not conflict with FAA regulations and would not be expected to interfere with movement of CAL FIRE aircraft. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Should Alternative PLR-1C construction activities occur on high-fire-risk days and during high fire danger times of the year, construction activities could exacerbate existing conditions resulting in wildfire ignition and subsequent exposure to pollutant concentrations, uncontrolled spread of wildfire, and/or exposure of people or structures to significant risks, such as downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. These events would be considered a significant impact. This is particularly true for portions of Alternative PLR-1C route that would directly border on/occur within the HFHSZ. As with the Proposed Project, construction of the 70 kV power line would comply with PRC requirements for wildland fire safety in brush- or grass-covered areas, as well as California Fire Code requirements, which would minimize potential to ignite a wildfire during construction. Additionally, **Mitigation Measure HAZ-1** would be implemented, which would require preparation and implementation of a fire prevention and management plan. The fire prevention and management plan would include site-specific considerations for wildland fire safety during construction and operation, including management of vegetation to ensure compliance with G.O. 95 clearance requirements. With implementation of these measures, Alternative PLR-1C would not substantially increase the risk of wildfire over baseline conditions. Additionally, the power line under Alternative PLR-1C would be operated remotely and would not place structures or people in areas where they could be exposed to pollutant concentrations from a wildfire or significant downslope or downstream flooding or landslides affects. Therefore, impacts under significance criteria B and D would be **less than significant with mitigation.**

No new or additional infrastructure (e.g., roads, fuel breaks, or emergency water sources) would need to be installed or maintained as a result of Alternative PLR-1C. The power line itself is electrical infrastructure that would inherently exacerbate the potential for wildfire risk above baseline conditions. Wildfire ignition could subsequently result in temporary and ongoing impacts, which would be considered significant. But, as described above, compliance with existing laws and regulations related to wildfire safety and implementation of Mitigation Measure HAZ-1 would reduce the potential for exacerbating fire risks, and subsequent temporary or ongoing impacts to the environment. Therefore, impacts under significance criterion C would be **less than significant with mitigation**.

Alternative PLR-3: Strategic Undergrounding (Both Options)

As described in Section 4.20.3, Alternative PLR-3 (both Option 1 & 2) would be located within the non-VHFHSZ LRA, although portions of this area may still be susceptible to wildfire. Of the alternatives under consideration, Alternative PLR-3 would have the greatest potential for traffic impacts due to the extended lane closures that would be required along the routes to conduct trenching and related activities. Extended lane closures and related traffic impacts could impair the ability to adequately implement emergency response plans, goals, and policies identified (see Appendix A), resulting in a significant impact. However, given that Alternative PLR-3 is not located within the SRA or a VHFHSZ, the potential for substantive impacts to emergency vehicle response to wildfire or evacuation procedures would be considered less than significant.

Implementation of **Mitigation Measure TR-1** would further reduce the impacts of Alternative PLR-3 on transportation and traffic, including emergency vehicle movement and evacuation procedures, although this mitigation measure is not considered necessary to reduce the impact under significance criterion A due to the alternative's location outside the SRA. Once operational, the 70 kV power line under Alternative PLR-3 would be almost entirely underground and would not affect emergency response or evacuation procedures. Therefore, impacts under significance criterion A would be **less than significant.**

Should Alternative PLR-3 construction activities occur on high-fire-risk days and during high fire danger times of the year, construction activities could exacerbate existing conditions resulting in wildfire ignition and subsequent exposure to pollutant concentrations, uncontrolled spread of wildfire, and/or exposure of people or structures to significant risks, such as downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. These events would be considered a significant impact. As with the Proposed Project, construction of Alternative PLR-3 would comply with PRC requirements for wildland fire safety in brush- or grass-covered areas, as well as California Fire Code requirements, which would minimize potential to ignite a wildfire during construction. Implementation of these measures would reduce potential wildfire hazards during construction to a level that is less than significant. The above-ground electrified components at the transition stations would be subject to G.O. 95 vegetation clearance requirements. Additionally, the power line under Alternative PLR-3 would be operated remotely and would not place structures or people in areas where they could be exposed to pollutant concentrations from a wildfire, uncontrolled spread of wildfire, and/or significant downslope or downstream flooding or landslides affects and post-wildfire-related hazards. Therefore, impacts under significance criteria B and D would be **less than significant.**

No new or additional infrastructure (e.g., roads, fuel breaks, or emergency water sources) would need to be installed or maintained as a result of Alternative PLR-3. The power line itself would be electrical infrastructure that would inherently exacerbate the potential for wildfire risk above baseline conditions; however, this risk would be substantially reduced compared to the Proposed Project 70 kV power line, since the majority of the electrified components would be underground for Alternative PLR-3. As described above, compliance with existing laws and regulations related to wildfire safety would reduce the potential for exacerbating fire risks, and subsequent temporary or ongoing impacts to the environment. Therefore, impacts under significance criterion C would be **less than significant.**

Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation

The Templeton Substation Expansion Site is located entirely within the SRA HFHSZ and surrounding areas include grasslands and oak woodland, which could provide fuel for a wildfire. Similar to the Proposed Project, construction of Alternative SE-1A has potential to disrupt traffic, as vehicles and equipment would need to access the site from El Pomar Road, and therefore could obstruct the response of emergency vehicles and implementation of evacuation procedures, which would be considered a significant impact. Given that these impacts would occur within an SRA HFHSZ area, Alternative SE-1A would have greater potential to interfere with emergency vehicle access and movement and/or evacuation procedures during a wildfire. Implementation of **Mitigation Measure TR-1** for Alternative SS-1 would require the development of a site-specific traffic control plan during construction, including measures to minimize vehicle travel delays and potential roadway hazards; and would, therefore reduce

potential adverse effects to a level that is less than significant. Once operational, the substation under Alternative SE-1A would not affect emergency response or evacuation procedures. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Should Alternative SE-1A construction activities occur on high-fire-risk days and during high fire danger times of the year, construction activities could exacerbate existing conditions resulting in wildfire ignition and subsequent exposure to pollutant concentrations, uncontrolled spread of wildfire, and/or exposure of people or structures to significant risks, such as downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. These events would be considered a significant impact. As with the Proposed Project, construction of the substation at the Alternative SE-1A site would comply with PRC requirements for wildland fire safety in brush- or grass-covered areas, as well as California Fire Code requirements, which would minimize potential to ignite a wildfire during construction. Additionally, as the Alternative SE-1A site is located in the HFHSZ, **Mitigation Measure HAZ-1** would be implemented, which would require preparation and implementation of a fire prevention and management plan. The fire prevention and management plan would include site-specific considerations for wildland fire safety during construction and operation, including design of the substation with defensible space and access for fire apparatus. With implementation of these measures, Alternative SE-1A would not substantially increase the risk of wildfire. Additionally, the substation at the Alternative SE-1A site would be operated remotely and would not place structures or people in areas where they could be exposed to pollutant concentrations from a wildfire, uncontrolled spread of wildfire, and/or significant downslope or downstream flooding or landslides affects and post-wildfire-related hazards. Therefore, impacts under significance criteria B and D would be **less than significant with mitigation.**

No new roads, fire breaks, or related additional infrastructure would need to be installed or maintained as a result of Alternative SE-1A. It is possible that a new emergency water supply (e.g., water tank) may be needed at the substation site, based on the outcome of the fire prevention and management plan development and coordination with CAL FIRE / County Fire Department. However, this would likely be no more than 10,000 to 20,000 gallons and could be accommodated by existing water sources in the area (see discussions in Section 4.10, “Hydrology and Water Quality”). The substation itself would be electrical infrastructure that would inherently exacerbate the potential for wildfire risk above baseline conditions and could subsequently result in temporary and ongoing impacts, which would be considered significant. Compliance with existing laws and regulations related to wildfire safety and implementation of **Mitigation Measure HAZ-1** would reduce the potential for exacerbating fire risks, and subsequent temporary or ongoing impacts to the environment Therefore, impacts under significance criterion C would be **less than significant with mitigation.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

The majority of the length of the Alternative SE-PLR-2 route would be within the designated SRA HFHSZ. This area has rural residential development and grassland and oak woodland areas, as well as moderate to steep topography, all of which increase potential wildfire hazards. Similar to the Proposed Project, construction of Alternative SE-PLR-2 would have potential to interfere with emergency vehicle access and movement and/or evacuation procedures during a wildfire such that local emergency response plans may be impaired. Construction vehicles and equipment may need to operate within public roadways and temporary lane or road closures

are possible along the Alternative SE-PLR-2 route. Temporary lane and road closures and other related interference by construction vehicles and equipment would be considered a significant impact if these activities were to substantially impair emergency response or evacuation within the SRA. Implementation of **Mitigation Measure TR-1** would reduce these potential adverse effects to a level that is less than significant. Once operational, the 70 kV power line under Alternative SE-PLR-2 would not be expected to affect emergency response or evacuation procedures. Therefore, impacts under significance criterion A would be **less than significant with mitigation.**

Should Alternative SE-PLR-2 construction activities occur on high-fire-risk days and during high fire danger times of the year, construction activities could exacerbate existing conditions resulting in wildfire ignition and subsequent exposure to pollutant concentrations, uncontrolled spread of wildfire, and/or exposure of people or structures to significant risks, such as downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. These events would be considered a significant impact. As with the Proposed Project, construction of the 70 kV power line under Alternative SE-PLR-2 would comply with PRC requirements for wildland fire safety in brush- or grass-covered areas, as well as California Fire Code requirements, which would minimize potential to ignite a wildfire during construction. Additionally, due to Alternative SE-PLR-2's location within the HFHSZ, **Mitigation Measure HAZ-1** would be implemented, which would require preparation and implementation of a fire prevention and management plan. The fire prevention and management plan would include site-specific considerations for wildland fire safety during construction and operation, including management of vegetation to ensure compliance with G.O. 95 clearance requirements. With implementation of these measures, Alternative SE-PLR-2 would not substantially increase the risk of wildfire over baseline conditions. Additionally, the power line under Alternative PLR-1C would be operated remotely and would not place structures or people in areas where they could be exposed to pollutant concentrations from a wildfire, uncontrolled spread of wildfire, and/or expose people or structures to significant downslope or downstream flooding, landslide affects, and post-wildfire-related hazards. Therefore, impacts under significance criteria B and D would be **less than significant with mitigation.**

No new or additional infrastructure (e.g., roads, fuel breaks, or emergency water sources) would need to be installed or maintained as a result of Alternative SE-PLR-2. The power line itself would be electrical infrastructure that would inherently exacerbate the potential for wildfire risk above baseline conditions and could subsequently result in temporary and ongoing impacts, which would be considered significant. Compliance with existing laws and regulations and implementation of **Mitigation Measure HAZ-1** would reduce the potential for exacerbating fire risks, and subsequent temporary or ongoing impacts to the environment. Therefore, impacts under significance criterion C would be **less than significant with mitigation.**

Alternative BS-2: Battery Storage to Address Distribution Need

Looking at the illustrative FTM BESS sites, Sites 6 and 8 are located within the SRA HFHSZ; while the remaining sites are located within the non-VHFHSZ LRA. For those sites located within the SRA, construction activities for Alternative BS-2 could affect traffic flow, and thereby, could potentially impact emergency vehicle movement and access and/or evacuation procedures during a wildfire such that local emergency response plans may be impaired. It is assumed that encroachment permits would be obtained for any construction activities under Alternative BS-2

that may substantially impact the roadway. Once operational, FTM facilities under Alternative BS-2 would not be anticipated to affect emergency response or evacuation procedures.

Should construction of the BESS at FTM sites occur on high-fire-risk days and during high fire danger times of the year, activities could exacerbate existing conditions resulting in wildfire ignition and subsequent exposure to pollutant concentrations, uncontrolled spread of wildfire, and/or exposure of people or structures to significant risks. Significant risks include downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. However, as with the Proposed Project, it is assumed that construction methods, practices, and design specifications would comply with PRC requirements for wildland fire safety in brush- or grass-covered areas, as well as California Fire Code requirements, which would serve to minimize ignition potential and related wildfire risks. Once constructed, BESSs (in particular, lithium-ion BESSs) may present a fire risk, particularly for FTM sites located within the SRA, such as the illustrative FTM Sites 6 or 8. UL 9540 is a safety standard specifically designed for electrochemical BESSs and includes, among other things, size and separation requirements to prevent a fire originating in one BESS unit from propagating to adjacent units (i.e., thermal runaway) (UL LLC 2020). Implementation of this standard, along with compliance with local laws and regulations for fire safety, would reduce potential impacts from BESSs related to fire risk. Further, FTM BESSs under Alternative BS-2 would be operated remotely and, therefore, these facilities would not expose structures or people to pollutant concentrations from a wildfire, uncontrolled spread of wildfire, and/or expose people or structures to significant downslope or downstream flooding, landslide affects, and post-wildfire-related hazards.

No new roads, fire breaks, or related additional infrastructure would need to be installed or maintained as a result of Alternative BS-2. The BESS facilities themselves would be electrical infrastructure that would inherently exacerbate the potential for wildfire risk above baseline conditions**.** It is assumed that compliance with all applicable local laws and regulations for fire safety would reduce potential impacts from BESSs to exacerbate fire risks, and temporary or ongoing impacts to the environment.

Overall, FTM BESS sites were selected for illustrative purposes only, BESS installations have not been designed and technologies have not been selected, and the specifics of Alternative BS-2 are unknown. Thus, project-level determinations cannot be made as impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is provided for any of the significance criteria.

Alternative BS-3: Third Party, Behind-the-Meter Battery Solar and Battery Storage

The specific locations of development sites under Alternative BS-3 are not yet known. However, it is anticipated that BTM solar and battery storage facilities would be located primarily within or on existing commercial, industrial, and residential buildings in the Paso Robles area. As such, these facilities would have little potential to adversely affect emergency response or evacuation plans and procedures. Given the relatively small scale of construction activities for individual BTM solar systems and BESSs, Alternative BS-3 would not substantially impair emergency response or evacuation procedures.

Construction/installation of individual BTM BESSs under Alternative BS-3 would be required to comply with the California Fire Code. Additionally, for any BTM facilities that may be installed on unused portions of properties that may include brush- or grass-covered areas, these

construction activities would need to comply with PRC requirements for wildland fire safety. Compliance with these existing laws and regulations would reduce potential for construction of BTM solar systems and BESSs to substantially increase the risk of wildfire or an accidental ignition. As discussed in Section 4.9, "Hazards and Hazardous Materials," BTM solar systems and BESSs do have some potential to increase fire hazard during operation. It is assumed that all applicable local codes and requirements would be followed for the permitting, siting, and installation of third-party BTM installations that may result from procurement via the DIDF. No new or additional infrastructure (e.g., roads, fuel breaks, or emergency water sources) would likely need to be installed or maintained as a result of Alternative BS-3.

Overall, due to the fact that specific locations and characteristics of BTM resources procured under Alternative BS-3 are unknown at this time, project-level impact determinations are not possible as the impacts are speculative. Therefore, consistent with CEQA Guidelines Section 15145, no significance conclusion is reached under any of the significance criteria.

Chapter 5
Alternatives Analysis Summary and Comparison of Alternatives

5.1 Introduction

As described in Chapter 3, *Alternatives Description*, the California Public Utilities Commission (CPUC) developed a range of reasonable, potentially feasible alternatives to the Proposed Project in compliance with California Environmental Quality Act (CEQA) requirements. The alternatives development process is documented in the Final Alternatives Screening Report (ASR), which is included as Appendix B to the Draft Environmental Impact Report (DEIR). The environmental effects of the alternatives considered in this DEIR have been evaluated within the individual resource sections (Sections 4.1 through 4.20). This chapter provides a summary of the alternatives considered for the Proposed Project and their environmental impacts, and includes a discussion of the environmentally superior alternative.

5.2 Summary of the Alternatives Analysis

5.2.1 Alternative Pairings and Combinations

Although the alternatives are evaluated separately in Sections 4.1 through 4.20, practically, individual alternatives would be implemented in tandem with one or more other alternatives. This is due to the nature of the Proposed Project, which includes a substation and 70 kV power line, as well as future distribution components that are reasonably foreseeable. Thus, a substation siting (SS) alternative would always be paired with a power line routing (PLR) alternative (as well as possibly a battery storage [BS] alternative to meet the distribution objective of the Proposed Project). The potential alternative pairings or combinations are shown in Table 3-22 of Chapter 3, *Alternatives Description.*

As indicated in Table 3-22, numerous potential pairings or combinations are possible, particularly when considering the distribution components. For the purposes of this summary and informing the public and decision-makers, the following primary alternative combinations are discussed further in this chapter:

- **Alternative Combination #1 (With Undergrounding):** Proposed Project, Alternative PLR-3, Alternative BS-2, and Alternative BS-3
- **Alternative Combination #2 (Estrella Route):** Estrella Substation, Alternative PLR-1A, Alternative BS-2, and Alternative BS-3
- **Alternative Combination #3 (Bonel Ranch):** Alternative SS-1, Alternative PLR-1C, Alternative BS-2, and Alternative BS-3

- **Alternative Combination #4 (South River Road):** Alternative SE-1A, Alternative SE-PLR-2, Alternative BS-2, and Alternative BS-3

- **Alternative Combination #5 (With Distributed Energy Resources [DERs]):** Proposed Project, Alternative BS-2, and Alternative BS-3

The specific characteristics of the alternative combinations are summarized in Table 5-1. Because the Transmission Objective cannot be solved through battery storage alone or by other means (see Final ASR for further discussion), a substation and power line must be included in any alternative combination in order to meet this objective. The Distribution Objective could either be solved through future buildout of the reasonably foreseeable distribution components or through implementation of front-of-the-meter (FTM) battery storage (Alternative BS-2) and/or behind-the-meter (BTM) solar and battery storage (Alternative BS-3). Alternatives BS-2 and BS-3 are included in each of the alternative combinations to provide alternative combinations that meet both of the Proposed Project objectives.

In lieu of the battery storage alternatives, traditional distribution infrastructure could theoretically be built out from any of the alternative substation sites under consideration (however, only the reasonably foreseeable distribution components, which would be constructed from the Estrella Substation, are evaluated in this DEIR). In addition to the alternative combinations listed above, the No Project Alternative and Proposed Project are also discussed in this chapter.

5.2.2 Summary of Alternatives Combinations and Their Relative Environmental Impacts

Table 5-1 below summarizes the characteristics of the No Project Alternative and the primary alternative combinations described in Section 5.2.1, and their respective environmental impacts, as they relate to the Proposed Project's impacts. For a more detailed description of each individual alternative, refer to Chapter 3, *Alternatives Description*.

Table 5-1. Alternatives Analysis Summary

Alternative Combination		Project Objectives Accomplished	Primary Characteristics of Alternative or Alternative Combination	Environmental Impacts Compared to the Proposed Project	
No.	Alternative / Title			Increased	Reduced
N/A	No Project Alternative	None	The Proposed Project is not constructed.	Increased impacts related to wildfire and hazards (emergency response and evacuation), as the 70 kV transmission system in the area of Paso Robles would remain vulnerable to an N-1 or N-1-1 outage. Such an outage, if it occurred at the same time as a wildfire, could lead to load shedding and blackouts, thereby hampering emergency response and evacuation efforts.	All construction- and operation-related impacts of the Proposed Project would be avoided. No significant and unavoidable impacts to aesthetics, agriculture and forestry resources, air quality, and noise would occur.
1	Proposed Project Alternative PLR-3: Strategic Undergrounding (Option 1 or 2) Alternative BS-2: Battery Storage to Address the Distribution Objective Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage	Transmission and Distribution	Estrella Substation is built as described for the Proposed Project. The 70 kV power line route is similar to the Proposed Project, except a portion of the proposed alignment near Golden Hill Road north of SR 46 is undergrounded. Front-of-the-meter (FTM) battery energy storage systems (BESSs) are constructed at example sites identified in this DEIR (FTM Sites 1 through 8) or at other sites and connected to the distribution system to defer the need for additional distribution capacity in the Paso Robles DPA or procured for installation by a third party via the Distribution Infrastructure Deferral Framework (DIDF).[1] Third-party behind -the-meter (BTM) solar and battery storage (i.e., "BTM resources") systems are procured/adopted by customers in the Paso Robles DPA to reduce loading on circuits. BTM resources are metered at the building-level, and could be owned and/or operated by either the building owner or a third-party provider. Reasonably foreseeable distribution components and ultimate substation buildout are not needed with deployment of solar and BESSs.	Trenching techniques for Alternative PLR-3, including the loosening of soils and use of hazardous materials, increases potential for off-site movement of pollutants to waterbodies and riparian habitat; however, these impacts are less than significant with implementation of the Stormwater Pollution Prevention Plan (SWPPP). Trenching activities also result in greater impacts on biological resources (e.g., blue oak woodland) due to increased disturbance area, although these impacts are less than significant with mitigation. There are increased transportation impacts due to extended temporary single lane closures required for construction of Alternative PLR-3; these impacts are less than significant with implementation of Mitigation Measure TR-1 and compliance with encroachment permits. Potentially greater quantities of solid waste associated with excavation and trenching activities for Alternative PLR-3, as well as potentially increased construction-related noise associated with use of asphalt saws; these impacts are less than significant with implementation of APMs and mitigation measures. Increased potential for construction activities for Alternative PLR-3 to encounter paleontological and cultural resources as a result of the increased excavation/ground-disturbance activities; however, impacts are less than	Reduced aesthetic impacts, including avoiding the significant and unavoidable impacts to the visual character and quality of the Golden Hill Road area. The significant and unavoidable aesthetic impacts from the Estrella Substation would remain under this alternative combination. Reduced impacts to special-status birds (e.g., potential electrocution or collision with overhead power lines) from the portion of the Proposed Project 70 kV power line along Golden Hill Road. A known golden eagle nest is present in this vicinity near Huerhuero Creek. Avoided overhead distribution lines (i.e., reasonably foreseeable distribution components) due to deployment of BESSs also would reduce potential impacts to special-status birds. Although the alternative combination would increase fire risks associated with BESSs, the undergrounded portion of the Proposed Project 70 kV power line (Alternative PLR-3) would have reduced fire risk compared to the same section of overhead line. Avoided overhead distribution lines (i.e., reasonably foreseeable distribution components) also could reduce fire risk. Depending on scale of FTM facilities and nature of BTM resources procurement (e.g., if resources are primarily within or on existing buildings), this could result in overall reduced construction activity (e.g., air and greenhouse gas (GHG) emissions, pollutant discharges from construction

[1] See Chapter 3, *Alternatives Description*, Section 3.3.8 for further details about the DIDF.

Alternative Combination		Project Objectives Accomplished	Primary Characteristics of Alternative or Alternative Combination	Environmental Impacts Compared to the Proposed Project	
No.	Alternative / Title			Increased	Reduced
				significant with implementation of APMs and mitigation measures. Potentially increased fire risk associated with FTM BESS installations (particularly lithium-ion BESSs); however, the fire risk associated with overhead distribution lines is avoided.	sites, etc.) from avoidance of need for reasonably foreseeable distribution components and substation buildout. Deployment of BESSs and solar could reduce GHG emissions associated with the electrical grid over the long-term (e.g., by avoiding or reducing the need for conventional [fossil fuel] energy production).
2	Estrella Substation Alternative PLR-1A: Estrella Route to Estrella Substation Alternative BS-2: Battery Storage to Address the Distribution Objective Third Party, Alternative BS-3: Behind-the-Meter Solar and Battery Storage	Transmission and Distribution	Estrella Substation is built as described for the Proposed Project. A 70 kV power line route is constructed to connect the Estrella Substation to the existing Paso Robles Substation, following a northern route that passes north of the Paso Robles Municipal Airport. The new 70 kV power line segment is 3.5 miles longer than the Proposed Project's new 70 kV power line segment, and approximately 6 miles of reconductoring is needed for the existing San Miguel-Paso Robles 70 kV Power Line (compared to 3 miles of reconductoring for the Proposed Project). FTM BESSs and third-party BTM solar and battery storage systems are constructed/procured as described above for Combination #1. Reasonably foreseeable distribution components and ultimate substation buildout are not needed with deployment of solar and BESSs.	Due to the longer length of 70 kV power line route, there is increased potential for many construction-related impacts (e.g., hazardous materials spills/exposure, pollutant discharges off-site, potential to encounter special-status species and/or buried cultural or paleontological resources, air and GHG emissions, energy use, etc.); with the exception of air quality, these impacts would be less than significant with implementation of APMs and mitigation measures. The air quality impacts would be significant and unavoidable for this alternative combination and the Proposed Project. Slightly increased wildfire risk because a segment of the 70 kV power line route would border a high fire hazard severity zone (HFHSZ) (whereas no portion of the Proposed Project's 70 kV power line would directly border or pass through the HFHSZ); this impact would be less than significant with implementation of mitigation measures. Potentially increased fire risk associated with FTM BESS installations (particularly lithium-ion BESSs); however, the fire risk associated with overhead distribution lines is avoided.	Reduced aesthetic impacts due to routing of 70 kV power line through more agricultural and rural areas north of Paso Robles; significant and unavoidable impacts of the Proposed Project's 70 kV power line would be avoided under this alternative combination, although the significant and unavoidable aesthetics impacts from the Estrella Substation would remain. Reduced noise impacts due to the routing of the 70 kV power line through more rural areas where fewer sensitive receptors are located nearby; however, overall, noise impacts would still be significant and unavoidable under this alternative combination, as helicopters would still be required for construction of the reconductoring segment near numerous residences. Reduced disruption to traffic flow during construction compared to the Proposed Project since the alternative alignment runs through largely rural, agricultural lands and then eventually along Wellsona Road, which is not a main thoroughfare. Reduced recreational impacts, including potential impacts to Barney Schwartz Park, the Paso Robles Sports Club, or Cava Robles RV Resort, compared to the Proposed Project, as the Alternative PLR-1A alignment would avoid these recreational resources. Although the avoided need for overhead distribution lines (i.e., reasonably foreseeable distribution components) due to deployment of BESSs would reduce potential impacts to special-status birds; these advantages must be weighed against the longer length of the 70 kV power line route. Similarly, the potential advantages of the avoided

Alternative Combination		Project Objectives Accomplished	Primary Characteristics of Alternative or Alternative Combination	Environmental Impacts Compared to the Proposed Project	
No.	Alternative / Title			Increased	Reduced
					distribution components related to fire risk (from overhead lines) and overall construction activity must be weighed against the longer 70 kV power line. Deployment of BESSs and solar could reduce GHG emissions associated with the electrical grid over the long-term (e.g., by avoiding or reducing the need for conventional [fossil fuel] energy production).
3	Alternative SS-1: Bonel Ranch Substation Site Alternative PLR-1C: Estrella Route to Bonel Ranch Alternative BS-2: Battery Storage to Address the Distribution Objective Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage	Transmission and Distribution	A substation, similar in size, electrical components, and equipment type to the Proposed Project, is built at Bonel Ranch, which is located along Estrella Road, approximately 4.5 miles northeast of the Estrella Substation site. A 70 kV power line route is constructed to connect the substation at Bonel Ranch to the Paso Robles Substation following a northern route that passes north of the Paso Robles Municipal Airport. The new 70 kV power line segment is 3 miles longer than the Proposed Project's new 70 kV power line segment, and approximately 6 miles of reconductoring is needed for the existing San Miguel-Paso Robles 70 kV Power Line (compared to 3 miles of reconductoring for the Proposed Project). FTM BESSs and third-party BTM solar and battery storage systems are constructed/procured as described above for Combination #1. Reasonably foreseeable distribution components and ultimate substation buildout are not needed with deployment of solar and BESSs.	Due to longer length of 70 kV power line route, increased potential for many construction-related impacts (e.g., hazardous materials spills/exposure, pollutant discharges off-site, air and GHG emissions, energy use, etc.); with the exception of air quality, these impacts would be less than significant with implementation of APMs and mitigation measures. The air quality impacts would be significant and unavoidable for this alternative combination and the Proposed Project. Due to the substation's location adjacent to the Estrella River (identified as sensitive for cultural resources by Native American tribes), increased potential for construction activities to encounter cultural resources, although these impacts would be less than significant with implementation of APMs and mitigation. The location of the substation and power line near the Estrella River also increase potential for construction activities to impact biological resources, but again, these impacts would be less than significant with implementation of APMs and mitigation measures. Increased wildfire risk for this alternative combination because both the substation site and portions of the 70 kV alignment are located within a HFHSZ; this impact would be less than significant with implementation of mitigation measures. Potentially increased fire risk associated with FTM BESS installations (particularly lithium-ion BESSs); however, the fire risk associated with overhead distribution lines is avoided.	Reduced aesthetic impacts due to routing of 70 kV power line route through more agricultural and rural areas north of Paso Robles and locating the substation in a more rural and less scenic portion of San Luis Obispo County; significant and unavoidable aesthetic impacts of the Proposed Project would be avoided under this alternative combination. Reduced noise impacts due to the routing of the 70 kV power line through more rural areas where fewer sensitive receptors are located nearby; however, overall, noise impacts would still be significant and unavoidable under this alternative combination, as helicopters would still be required for construction of the reconductoring segment near numerous residences. Reduced disruption to traffic flow during construction compared to the Proposed Project since the alternative alignment and substation site are located primarily within rural, agricultural lands. Reduced recreational impacts, including potential impacts to Barney Schwartz Park, the Paso Robles Sports Club, or Cava Robles RV Resort, compared to the Proposed Project, as the Alternative SS-1 site and Alternative PLR-1C alignment would avoid these resources. Although the avoided need for overhead distribution lines (i.e., reasonably foreseeable distribution components) due to deployment of BESSs would reduce potential impacts to special-status birds; these advantages would have to be weighed against the longer length of the 70 kV power line route. Similarly, the potential advantages of avoiding the distribution components related to fire risk (from overhead

Alternative Combination		Project Objectives Accomplished	Primary Characteristics of Alternative or Alternative Combination	Environmental Impacts Compared to the Proposed Project	
No.	Alternative / Title			Increased	Reduced
					lines) and overall construction activity must be weighed against the longer 70 kV power line. Deployment of BESSs and solar could reduce GHG emissions associated with the electrical grid over the long-term (e.g., by avoiding or reducing the need for conventional [fossil fuel] energy production).
4	Alternative SE-1A: Templeton Substation Expansion – 230/70 kV Substation Alternative SE-PLR-2: Templeton-Paso South River Road Route Alternative BS-2: Battery Storage to Address Distribution Objective Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage	Transmission and Distribution	A substation, similar in size, electrical components, and equipment type to the Proposed Project, is built adjacent to the existing Templeton Substation, which is located along El Pomar Drive, approximately 7.1 miles southwest of the Estrella Substation site. A 70 kV power line is constructed to connect the substation at the Templeton Substation Expansion site to Paso Robles Substation. The route follows South River Road for much of its length. The new 70 kV power line segment is 1.8 miles shorter than the Proposed Project's new 70 kV power line segment, and no reconductoring of any existing power lines is required (compared to 3 miles of reconductoring for the Proposed Project). FTM BESSs and third-party BTM solar and battery storage systems are constructed/procured as described above for Combination #1. Reasonably foreseeable distribution components and ultimate substation buildout are not needed with deployment of solar and BESSs.	In spite of shorter length of 70 kV power line and reduced overall construction activity, there would be increased potential for impacts to cultural resources due to the alignment passing through the Santa Ysabel Ranch area, which Native American tribes in the area have indicated is sensitive for cultural resources; these impacts would be less than significant with implementation of APMs and mitigation measures. Despite reduced overall construction activity, there would be increased potential for impacts to hydrology and water quality due to construction activities in hilly and undeveloped areas (e.g., erosion and discharge of sediments); these impacts would be less than significant with implementation of the SWPPP. Increased potential for impacts to biological resources (special-status birds) during construction and operation of the 70 kV power line due to the multiple known golden eagle nests located in proximity to the power line route. Also, there would be increased disturbance to sensitive habitats. Increased wildfire risk for this alternative combination because the substation site and much of the 70 kV power line alignment are located within a HFHSZ; this impact would be less than significant with implementation of mitigation measures. Potentially increased fire risk associated with FTM BESS installations (particularly lithium-ion BESSs); however, the fire risk associated with overhead distribution lines (reasonably foreseeable distribution components) is avoided.	Due to the shorter length of the new 70 kV power line and avoided need for reconductoring, there would be reduced potential for several construction-related impacts (e.g., hazardous materials spills/exposure, air and GHG emissions, energy use, etc.); however, the air quality impacts would be still be significant and unavoidable for this alternative combination, as they would be for the Proposed Project. While siting the substation at Templeton Substation would reduce aesthetic impacts compared to the Estrella Substation (thereby avoiding the significant and unavoidable impact on visual character and quality from the Estrella Substation); the Alternative SE-PLR-2 70 kV power line alignment would result in significant and unavoidable impacts on aesthetics in this location. Although the avoided need for overhead distribution lines (i.e., reasonably foreseeable distribution components) due to deployment of BESSs would reduce potential impacts to special-status birds; these advantages would have to be weighed against the 70 kV power line route being located near known golden eagle nests. Similarly, the potential advantages of avoiding the distribution components related to fire risk (from overhead lines) and overall construction activity must be weighed against the 70 kV power line's location in a HFHSZ. Deployment of BESSs and solar could reduce GHG emissions associated with the electrical grid over the long-term (e.g., by avoiding or reducing the need for conventional [fossil fuel] energy production).

Alternative Combination		Project Objectives Accomplished	Primary Characteristics of Alternative or Alternative Combination	Environmental Impacts Compared to the Proposed Project	
No.	**Alternative / Title**			**Increased**	**Reduced**
5	Proposed Project Alternative BS-2: Battery Storage to Address the Distribution Objective Alternative BS-3: Third Party, Behind-the-Meter Solar and Battery Storage	Transmission and Distribution	Estrella Substation and 70 kV power line are constructed as described for the Proposed Project. FTM BESSs and BTM solar and battery storage systems are constructed/procured as described above for Combination #1. Reasonably foreseeable distribution components and ultimate substation buildout are not needed with deployment of solar and BESSs.	Potentially increased fire risk associated with FTM BESS installations (particularly lithium-ion BESSs); however, the fire risk associated with overhead distribution lines (reasonably foreseeable distribution components) is avoided.	Likely reduced aesthetic impacts by avoiding the need for overhead distribution lines; although speculative, aesthetic impacts from FTM and BTM storage and solar facilities are likely to be minor and less severe than those from the reasonably foreseeable distribution components. Likely reduced biological resources impacts due to the avoided need for overhead distribution lines; FTM and BTM storage and solar facilities are likely to have relatively small footprints (or be installed within or on existing buildings) and would not pose the same hazard to special-status birds that the reasonably foreseeable distribution components would. Deployment of BESSs and solar could reduce GHG emissions associated with the electrical grid over the long-term (e.g., by avoiding or reducing the need for conventional [fossil fuel] energy production).

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5.3 Environmentally Superior Alternative

The CEQA Guidelines, under Section 15126.6(e)(2), state that "if the environmentally superior alternative is the 'no project' alternative, the environmental impact report (EIR) shall also identify an environmentally superior alternative among the other alternatives." This section discusses the No Project Alternative, Proposed Project, and alternative combinations in terms of their relative environmental benefits and drawbacks and identifies an environmentally superior alternative.

5.3.1 Discussion

As indicated in Table 5-1, and discussed below, there are environmental tradeoffs with each of the alternative combinations such that each alternative combination and/or individual alternative considered in the DEIR would decrease at least some environmental impacts compared with the Proposed Project, while increasing others. Therefore, each alternative combination may be perceived as environmentally superior to the Proposed Project in some ways. Selecting the overall environmentally superior alternative, then, requires taking multiple factors into account and determining which alternative combination offers the most advantages and least drawbacks among the Proposed Project and other alternative combinations. The following discussion provides support for this selection.

No Project Alternative

With respect to the No Project Alternative, while this alternative would avoid all construction- and operation-related impacts of the Proposed Project, including the significant and unavoidable environmental impacts related to aesthetics, agriculture and forestry resources, air quality, and noise, this alternative would result in significant impacts of its own. Specifically, in not addressing the Transmission Objective of the Proposed Project, the No Project Alternative would not alleviate the transmission system vulnerabilities that are described in Chapter 2, *Project Description.* Therefore, the No Project Alternative would leave the Paso Robles 70 kV system vulnerable to an N-1 or N-1-1 contingency, which would likely ultimately result in load shedding and/or blackouts for customers in this service area. If this were to occur at the same time as a wildfire, for example, this could hamper emergency response and evacuation efforts (e.g., residents in the affected areas not being able to receive communications via their televisions or being able to charge their phones to receive communications). For these reasons, the No Project Alternative is not considered environmentally superior.

Proposed Project

As described throughout the DEIR, the Proposed Project would result in several impacts that would be significant and unavoidable, as well as a number of impacts that would be less than significant with mitigation. Most notably, the Proposed Project would have significant adversely effects on aesthetics from the placement of the Estrella Substation along Union Road and from the Proposed Project's 70 kV power line, which would pass through the area of Golden Hill Road where there are several sensitive uses and no existing overhead transmission or distribution lines. The sensitive uses that would be impacted include the Cava Robles RV Resort, which was recently constructed (2017-2018). As part of the City of Paso Robles' review and approval of this resort, the property was designated as Parks and Open Space (POS) (see Figure 4.11-1), and

existing distribution lines along this portion of Golden Hill Road were undergrounded during the resort's construction (Dawson, pers. comm., 2020). Other impacts of the Proposed Project include permanent conversion of Important Farmland to non-agricultural uses due to the substation and portions of the power line being constructed on agricultural land. The Proposed Project also would result in significant impacts related to noise and air quality during construction, and would make a considerable contribution to cumulative impacts to aesthetics, agricultural resources, and air quality.

Development of the reasonably foreseeable distribution components and the ultimate substation buildout, which would occur in the future as a result of the Proposed Project, would result in similar but less severe impacts, all of which could be reduced to a level that is less than significant with implementation of applicant proposed measures (APMs) and mitigation measures. Relative to Alternative Combinations 3 and 4, the Proposed Project would site the substation in an area that is outside the High Fire Hazard Severity Zone (HFHSZ), thus resulting in reduced fire risk. Relative to Alternative Combinations 2 and 3, the Proposed Project would involve a shorter 70 kV power line route, which would reduce several construction-related impacts (e.g., air and greenhouse gas [GHG] emissions, etc.). However, each of the alternative combinations would offer important advantages over the Proposed Project, as discussed further below.

Alternative Combination #1

Alternative Combination #1 would offer the advantage of avoiding the significant aesthetics impacts associated with the overhead 70 kV power line in the area of Golden Hill Road, which does not currently have above-ground transmission or distribution lines and includes sensitive recreational and residential uses. This includes the Cava Robles RV Resort and surrounding area, as described above, which was designated as POS (see Figure 4.11-1) by the City of Paso Robles during the City's review and approval of the RV resort. However, the undergrounding construction process would increase impacts on the transportation system by requiring extended lane closures to install the underground power line, as well as biological impacts due to the increased disturbance area. That being said, undergrounding the power line in this area would have the advantage of reducing or avoiding impacts on special-status birds that could occur as a result of the Proposed Project's overhead power line, particularly considering that there is a known golden eagle nest in this area. Additionally, constructing FTM BESSs and/or procuring BTM resources under this alternative combination could increase fire risk (associated with lithium-ion BESSs, in particular) on the one hand but would avoid the need for the reasonably foreseeable distribution components and ultimate substation buildout, avoiding the fire risk associated with those facilities.

Alternative Combination #2

Alternative Combination #2 would offer the advantages of avoiding the significant aesthetic impacts of the Proposed Project's 70 kV power line by routing the power line through a predominantly more rural, agricultural area that would pass north of the City of Paso Robles and the Paso Robles Municipal Airport. This would create aesthetic impacts in these areas along the Alternative PLR-1A alignment. Due to the nature of this area, the impacts would be less severe than those for the Proposed Project's 70 kV alignment and would be less than significant with mitigation. The alternative combination also would reduce transportation impacts relative to

the Proposed Project due to the more rural route and would avoid the impacts the Proposed Project would have on recreational resources such as Barney Schwartz Park, Paso Robles Sports Club, and Cava Robles RV Resort. As noted above, the Cava Robles RV Resort property was recently designated POS by the City of Paso Robles during the City's review and approval process for the RV resort, and existing overhead distribution lines along Golden Hill Road were undergrounded as part of the resort construction (Dawson, pers. comm., 2020). This alternative combination would reduce noise impacts by avoiding many of the sensitive receptors along the Proposed Project's 70 kV alignment and following a more rural route, although noise impacts would still be significant and unavoidable overall under Alternative Combination 2.

The Alternative PLR-1A alignment included in Alternative Combination #2 would be substantially longer (approximately 6.5 miles longer) than the Proposed Project's 70 kV power line route, which would increase a variety of construction-related environmental impacts, such as air and GHG emissions, energy use, potential hazardous materials spills/exposure and discharges of pollutants, among others. The Alternative PLR-1A alignment also would border a HFHSZ in two locations, which would increase fire risk compared to the Proposed Project's 70 kV power line alignment. The same tradeoffs with respect to the FTM BESSs and BTM resources described above for Alternative Combination #1 would apply to Alternative Combination #2. Overall, the advantages of avoiding the reasonably foreseeable distribution components and ultimate substation buildout through solar and battery storage approaches would have to be weighed against the increased length of the 70 kV power line under this alternative combination.

Alternative Combination #3

Alternative Combination #3 would offer many of the same advantages and drawbacks as Alternative Combination #2 in that it would utilize a variation of the northern Estrella Route (i.e., Alternative PLR-1C). The primary difference is that the substation would be placed at Bonel Ranch rather than the proposed Estrella Substation site. The Bonel Ranch site is in a more rural location along Estrella Road, which is scenic in its own right, but does not have the same scenic quality as the Union Road location that is typified by rolling vineyards (and is along a designated visual corridor according to the City of Paso Robles General Plan). Thus, placing the substation in this location would reduce the significant aesthetic impacts that were identified for the proposed Estrella Substation. Coupled with the Alternative PLR-1C route, this alternative combination would reduce the significant and unavoidable aesthetics impacts of the Proposed Project. Additionally, while the Bonel Ranch site is currently in agricultural use (alfalfa production), it is not on land classified as one of the protected categories of Important Farmland under CEQA (Prime Farmland, Farmland of Statewide Importance, or Unique Farmland); thus, placing the substation at this location would reduce the Proposed Project's significant impacts on agriculture resources. Alternative Combination #3 would have the same benefits of reducing transportation, recreational resources, and noise impacts as described above for Alternative Combination #2 by routing the 70 kV power line through a more rural area relative to the Proposed Project's 70 kV power line route. This alternative combination also would avoid the impacts to Golden Hill Road, including Cava Robles RV Resort. Noise impacts would still be significant and unavoidable overall.

In spite of the relative advantages, the Bonel Ranch site is located adjacent to the Estrella River and thus would have increased potential for impacts on biological and cultural resources (which are more likely to occur near the river). Additionally, the Bonel Ranch site, and a greater

proportion of the Alternative PLR-1C power line route, are located within the HFHSZ, which would increase fire hazards relative to Alternative Combination #2 and the Proposed Project. In a similar manner to Alternative Combination #2, the potential advantages of avoiding the reasonably foreseeable distribution components and ultimate substation buildout by pursuing solar and battery storage (Alternatives BS-2 and BS-3) must be weighed against the longer length of the 70 kV power line and locating the facilities partially within the HFHSZ.

Alternative Combination #4

Alternative Combination #4 would offer several important advantages from an environmental perspective. First, co-locating the new 230/70 kV substation with the existing Templeton Substation would reduce the aesthetic impacts of the new facilities from existing conditions. Additionally, since the Templeton Substation Expansion site is classified as Farmland of Local Importance and Farmland of Local Potential (i.e., not one of the categories specified in the CEQA Guidelines Appendix G significance criteria), placing the substation at this location would avoid the significant effects of the proposed Estrella Substation on agricultural resources. Further, the power line route under Alternative SE-PLR-2 would be substantially shorter (4.8 miles shorter in total length) than the Proposed Project's 70 kV power line, which would reduce a number of construction-related impacts, such as those related to air quality, GHG emissions, energy, and potential hazardous materials spills/exposure. As discussed previously, implementing FTM and/or BTM BESSs and solar as part of this combination and thus avoiding the need for traditional distribution infrastructure would avoid the environmental impacts associated with these facilities (e.g., fire risk, biological resources, etc.); however, these potential advantages would be balanced by some of the drawbacks of this alternative combination, as discussed below.

In spite of Alternative SE-PLR-2's shorter length and the co-location of the substation with existing transmission facilities, certain characteristics of this alternative combination may increase environmental impacts relative to the Proposed Project's 70 kV power line. First, much of the length of the Alternative SE-PLR-2 route (and the Alternative SE-1A site) is located within the HFHSZ, which would increase the fire risk associated with this combination during construction and operation. Additionally, South River Road is a very scenic area in the area of the Alternative SE-PLR-2 alignment (particularly south of Charolais Road), typified by rolling hills and oak trees, such that the 70 kV power line would significantly affect aesthetics. There are also several known golden eagle nests in relatively close proximity to the alignment, and construction and operation of the 70 kV line under this alternative could have increased potential to impact biological resources overall due to the presence of suitable habitat for a number of species.

Alternative Combination #5

As described in Table 5-1, Alternative Combination #5 would likely reduce several impacts of the Proposed Project (with construction of the reasonably foreseeable distribution components and ultimate substation buildout). Although certain elements of Alternatives BS-2 and BS-3 are speculative at this time, it is reasonable to assume that deployment/procurement of DERs to meet the distribution needs in the Paso Robles Distribution Planning Area (DPA) in lieu of traditional distribution infrastructure would reduce environmental impacts. Specifically, it is likely that DERs (including potentially both FTM and BTM resources), many of which may be

installed within or on existing buildings or tastefully enclosed within building structures, would have reduced aesthetic impacts compared to overhead distribution lines. Similarly, by avoiding the need for traditional overhead distribution lines, Alternative Combination #5 would reduce potential impacts to special-status birds, which can be impacted due to electrocution from or collision with overhead lines. Alternative Combination #5 also would avoid the fire risk that is associated with overhead electrified lines; however, certain DERs (e.g., battery storage) may have some fire risk of their own.

5.3.2 Conclusion and Draft EIR Environmentally Superior Alternative

Given the numerous tradeoffs involved with each alternative combination, the selection of a single, Environmentally Superior Alternative was not clear-cut. Depending on how the trade-offs are weighted, several of the alternatives could be considered the Environmentally Superior Alternative. Taking all factors into account, Alternative Combination #2 offers the most advantages and least drawbacks among the Proposed Project and other alternative combinations. Most significantly, this combination would route the new 70 kV power line north of the City of Paso Robles and thus would avoid the significant aesthetic impacts of the Proposed Project's 70 kV power line. In particular, the Alternative PLR-1A route would avoid the impacts on the Golden Hill Road area, including the Cava Robles RV Resort, San Antonio Winery, and residents at the Circle B Homeowners' Association. The northern power line route also would avoid the sensitive habitat (i.e., blue oak woodland) located along and north of Golden Hill Road, including the area where there is a known golden eagle nest nearby.

During the scoping period and Draft ASR review period, the CPUC received a large number of comments expressing concerns about the impacts of the Proposed Project's overhead 70 kV power line, particularly in this area along Golden Hill Road. While undergrounding is one way to resolve these concerns (as is contemplated under Alternative PLR-3, as part of Alternative Combination #1), this would increase a number of environmental impacts, as described above, and may limit the utility of the power line. It should be noted that the City of Paso Robles expressed a preference for the Proposed Project 70 kV route, and PG&E has stated that having an overhead power line through an industrial area (Golden Hill Industrial Park) would be advantageous to customers that may wish to connect directly to the 70 kV system. The CPUC also received comments opposing the northern Alternative PLR-1A route, however, these were less numerous than those related to the Proposed Project route.

Retaining the proposed Estrella Substation under Alternative Combination #2 would not resolve the significant impacts identified for this facility related to agricultural resources and aesthetics; however, the other alternative substation sites are not clearly preferable for the reasons described in Section 5.3.1. Implementing FTM BESSs or BTM BESSs and solar under this alternative combination would likely be less impactful, on balance, than buildout of the reasonably foreseeable distribution components (and ultimate substation buildout). In particular, pursuit of the BTM resources under Alternative BS-3 could largely resolve the distribution needs projected for the Paso Robles area in the foreseeable future (with certain specific exceptions), as the BTM Solar plus Storage Adoption Propensity Analysis report (see Final ASR [Appendix B to this DEIR]) showed tremendous potential for BTM resources adoption in the region. This scenario would be best from an environmental perspective, as the FTM BESS facilities would not need to be constructed and environmental impacts would be limited overall. Nevertheless, if traditional infrastructure was preferred for other reasons, the Estrella

Substation location would be better-suited to serve the likely growth areas through traditional distribution lines compared to the other substation locations (Alternative SS-1 and SE-1A).

Taking into account all relevant factors, Alternative Combination #2 is considered the most advantageous option and is identified as the Environmental Superior Alternative for this DEIR. The full ranking of the alternative combinations and the Proposed Project is provided in Table 5-2. The tiers identified in Table 5-2 indicate which alternative combinations are close to one another in terms of environmental costs and benefits, such that any of the alternative combinations within a given tier could be determined to be environmentally superior to one another depending on how relative impacts are weighed. In general, for the ranking, environmental impacts with long-term or permanent effects are weighted more heavily than impacts with short-term or temporary effects. Similarly, impacts with widespread effects are weighted more heavily than those with localized effects.

Table 5-2. Environmental Superiority Ranking of the Alternative Combinations and Proposed Project

Rank	Alternative	Rationale
Tier A		
1	Alternative Combination #2 (Estrella Route): Estrella Substation, Alternative PLR-1A, Alternative BS-2, and Alternative BS-3	Significant, permanent aesthetic impacts along Golden Hill Road from the Proposed Project's 70 kV power line would be avoided. Biological resources impacts would be reduced by avoiding area of blue oak woodland where a known golden eagle nest is located nearby. Aesthetic and biological resources impacts of reasonably foreseeable distribution components would be reduced.
2	Alternative Combination #1 (with Undergrounding): Proposed Project, Alternative PLR-3, Alternative BS-2, and Alternative BS-3	Significant, permanent aesthetic impacts along Golden Hill Road from the Proposed Project's overhead 70 kV power line would be avoided. Aesthetic and biological resources impacts of reasonably foreseeable distribution components would be reduced.
Tier B		
3	Alternative Combination #5 (with DERs): Proposed Project, Alternative BS-2, and Alternative BS-3	Aesthetic and biological resources impacts of reasonably foreseeable distribution components would be reduced.
Tier C		
4	Proposed Project	Estrella Substation and Proposed Project 70 kV route's location outside the HFHSZ would reduce fire risk compared to Alternative Combinations 3

Rank	Alternative	Rationale
		and 4. Shorter length of 70 kV power line compared to Alternative Combination #3 would reduce construction-related, temporary impacts.
Tier D		
5	Alternative Combination #3 (Bonel Ranch): Alternative SS-1, Alternative PLR-1C, Alternative BS-2, and Alternative BS-3	Although significant, permanent aesthetic and agricultural resources impacts of Estrella Substation and the Proposed Project 70 kV power line would be reduced, the increased fire risk from portions of the alternative combination being located in the HFHSZ are weighted heavily in the analysis. Fire could have widespread and devastating effects in the Paso Robles area. Location of Bonel Ranch site near Estrella River also could increase potential biological resources and cultural resources impacts. The longer length of the 70 kV power line would increase construction-related impacts.
6	Alternative Combination #4 (South River Road): Alternative SE-1A, Alternative SE-PLR-2, Alternative BS-2, and Alternative BS-3	Although significant aesthetic impacts of Estrella Substation would be reduced, the South River Road 70 kV power line alignment would create significant aesthetic impacts in this area. Significant agricultural resources impacts the Proposed Project would be reduced; however, fire risk would be increased due to the substation and power line under Alternative Combination #4 being located in HFHSZ. Fire risk is weighted heavily in the environmental superiority analysis due to the widespread and potentially devastating effects of wildfire. Despite shorter 70 kV power line, location of the line near known golden eagle nests and through an area sensitive for cultural resources (Santa Ysabel Ranch) would increase impacts to biological and cultural resources.

For each of the alternative combinations ranked above, it is possible that the reasonably foreseeable distribution components could be installed instead of Alternative BS-2 and Alternative BS-3. For example, DER procurement might be sought under the CPUC's Distribution Infrastructure Deferral Framework (DIDF), but the third-party bids received might not be cost effective. If this were to occur, the traditional, wired solution would be installed instead of a DER alternative. Impacts would be greater than under the alternative combinations evaluated because of the approximately 1.7 miles of new distribution line and 8 miles of reconductoring.

Since this outcome would not reduce impacts, it was not included in the alternative combinations evaluated.

Further information about the DIDF is provided in Chapter 3, *Alternatives Description*.

5.4 Cost Considerations

Specific costs for the Proposed Project and alternatives are marked as confidential by the Applicants. For illustrative purposes, costs have been estimated for the 70 kV power line components of the Proposed Project and alternative combinations using assumptions explained in the footnotes to Table 5-3. Since the substation, whether located at the Estrella Substation site, Bonel Ranch, or the existing Templeton Substation, would include the same equipment and have the same general layout/scope, costs for constructing the substation are assumed to be similar across the different alternative combinations; however, costs could be elevated for the substation at the existing Templeton Substation site (Alternative Combination #3; see footnote 3 in Table 5-3). Based on publicly available information, the Proposed Project overall is estimated to cost about $150 million.[2]

For all of the alternative combinations that include Alternative BS-2 and BS-3, the costs associated with DER procurement are unknown at this time and are not included in Table 5-3. As of 2019, the reasonably foreseeable distribution components associated with the Proposed Project were estimated to cost $18.5 million (CPUC 2020). For Alternative BS-2 and BS-3 to be developed through the DIDF, the cost cap would be less than this amount since the DER solution needs to be cost-effective.

[2] Based on PG&E's public 2020 AB 970 report, which identified its portion of the Proposed Project as costing $90 to $100 million (PG&E 2020). HWT's portion of the Proposed Project (230/70 kV components) was estimated to cost $35 to $45 million in CAISO's 2013-2014 Transmission Plan (CAISO 2014).

Table 5-3. Approximated Cost Calculations for the Proposed Project and Alternative Combinations

Component	Cost/Mile[1, 2]	Proposed Project		Alternative Combination #1 (With Undergrounding)		Alternative Combination #2 (Estrella Route)		Alternative Combination #3 (Bonel Ranch)		Alternative Combination #4 (South River Road)[3]		Alternative Combination #5 (With DERs)	
		Length (miles)	Cost Estimate	Length (miles)	Cost Estimate	Length (miles)	Cost Estimate	Length (miles)	Cost Estimate	Length (miles)	Cost Estimate	Length (miles)	Cost Estimate
New Overhead 70 kV Power Line	$3,008,000	7	$21,056,000	5.9	$17,747,200	10.5	$31,584,000	10	$30,080,000	5.2	$15,641,000	7	$21,056,000
Reconductored Overhead 70 kV Power Line	$1,738,000	3	$5,214,000	3	$5,214,000	6	$10,428,000	6	$10,428,000	0	$0	3	$5,214,000
Undergrounded 70 kV Power Line	$17,705,000	0	$0	1.1	$19,457,500	0	$0	0	$0	0	$0	0	$0
Total:			**$26,270,000**		**$42,436,700**		**$42,012,000**		**$40,508,000**		**$15,641,600**		**$26,270,000**
Cost compared to Proposed Project:			**N/A**		**+62%**		**+60%**		**+54%**		**-40%**		**0%**

Notes: Cost calculations are estimated for the 70 kV power line only, including engineering and construction.

1. Cost assumptions for new overhead 70 kV power line and reconductored overhead 70 kV power line are taken from PG&E's 2019 per unit cost guide spreadsheet (PG&E 2019). The cost for the new power line segment assumes double-circuit, strung on both sides, tubular steel pole (TSP) construction, and is therefore conservative (the new power line segments for the Proposed Project and alternatives would use a combination of TSPs and light duty steel poles [LDSPs]). The cost for the reconductoring segment assumes single-circuit construction, with an evenly split percentage of TSPs and LDSPs. Unit cost per mile for both new and reconductoring overhead power line segments assumes flat land/rural setting, and includes engineering and construction costs only. Environmental, permitting, and right of way acquisition costs are not included.
2. The assumed cost per mile for undergrounded 70 kV power line is based on the range of estimates (middle point between highest and lowest) from PG&E, Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E), and Edison Electric Institute's (2013) publication "Out of Sight, Out of Mind," which are shown below. Portions of the Alternative Combination #2 undergrounding segment would likely be considered urban, while other portions would be considered rural.

   Underground Estimates
   - Out of Sight, Out of Mind (new underground transmission construction, rural): $1.4M to $27M/mile
   - Out of Sight, Out of Mind (new underground transmission construction, urban): $3.5M to $30M/mile
   - SDG&E (new underground transmission construction, 69 kV): $10M to $15M/mile
   - SCE (new underground subtransmission line, 66 kV): $5.7M to $8.5M/mile
   - PG&E: concurred with Out of Sight, Out of Mind estimates but escalated to current dollars. In 2020 dollars, the Out of Sight, Out of Mind estimates would translate to roughly $1.59M to $30.61M/mile (rural) or $3.97M to $34.01M/mile (urban).
3. Engineering and construction costs for the 70 kV power line portion of Alternative Combination #3 would likely be less than the Proposed Project 70 kV power line due to the shorter line length. However, right of way acquisition costs could be higher due to the difficulties associated with obtaining approval from the homeowners associations along this route. Additionally, the substation under Alternative Combination #3 would be more expensive to construct due to the need to rebuild portions of the existing Templeton Substation and because the land may be more expensive to require. PG&E data responses to Energy Division in 2017 indicate that the Templeton Expansion Alternatives would be more expensive than the Proposed Project. PG&E marked these responses as confidential.

Sources: PG&E 2019; Edison Electric Institute 2013; SCE 2019; SDG&E 2019; Smith, pers. comm., 2019

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Chapter 6
Other Statutory Considerations and Cumulative Impacts

6.1 Introduction

This chapter presents discussions of significant and unavoidable impacts, growth-inducing impacts, and cumulative impacts as required by the California Environmental Quality Act (CEQA) Guidelines. The other statutory conditions are discussed for the Proposed Project, reasonably foreseeable distribution components, and alternatives, as appropriate.

6.2 Significant and Unavoidable Impacts

Section 15126.2(b) of the CEQA Guidelines requires an environmental impact report (EIR) to describe any significant impacts that cannot be mitigated to a less-than-significant level. All of the impacts associated with the Proposed Project, reasonably foreseeable distribution components, and alternatives would be reduced to a less-than-significant level through the implementation of identified mitigation measures, with the exception of the impacts discussed below. The following impacts have been identified as significant and unavoidable:

- Impact AES-1 (Significance Criterion A): Have a substantial effect on a scenic vista *(Alternative SE-PLR-2)*

- Impact AES-3 (Significance Criterion C): In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? *(Proposed Project; Alternative SE-PLR-2)*

- Impact AGR-1 (Significance Criterion A): Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use. *(Proposed Project; Alternatives PLR-1A, PLR-1C, and SE-PLR-2)*

- Impact AGR-2 (Significance Criterion B): Conflict with existing zoning for agricultural use, or a Williamson Act contract. (*Proposed Project*)

- Impact AQ-2 (Significance Criterion B): Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. *(Proposed Project; Alternatives SS-1, PLR-1A, PLR-1C, PLR-3, SE-1A, and SE-PLR-2)*

- Impact HAZ-6 (Significance Criterion F): Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (*No Project Alternative*)

- Impact NOISE-1 (Significance Criterion A): Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or in the applicable standards of other agencies. (*Proposed Project; Alternatives SS-1, PLR-1A, PLR-1C, PLR-3, and SE-PLR-2*)

- Impact WF-1 (Significance Criterion A): Substantially impair an adopted emergency response plan or emergency evacuation plan. *(No Project Alternative)*

6.3 Significant Irreversible Changes

Section 15126.2(c) of the CEQA Guidelines requires that an EIR identify significant irreversible environmental changes that would be caused by the Proposed Project. These changes may include, for example, uses of non-renewable resources or provision of access to previously inaccessible areas, as well as project accidents that could result in permanent, long-term changes. Development of the Proposed Project or alternatives would require a permanent commitment of natural resources resulting from the direct consumption of fossil fuels and construction materials, the manufacture of new equipment that largely cannot be recycled at the end of the Proposed Project's or alternatives' useful lifetime, and energy required for the production of materials. Furthermore, construction of the Proposed Project could also result in loss of blue oak woodland habitat, as a result of pole and tower installation, vegetation removal, and clearing activities; this habitat can support special-status species. However, as evaluated in Section 4.4, "Biological Resources," while the Proposed Project would impact biological resources, with implementation of mitigation and applicant proposed measures (APMs), impacts to biological resources would be less than significant.

Operation of the approved project (either the Proposed Project and/or alternative project components) would allow for the transport of additional electrical power generated from renewable and non-renewable resources, although the approved project itself would not require the future use of specific amounts of non-renewable resources beyond fuel and equipment needed for routine operation and maintenance activities. While the approved project would facilitate the delivery of electrical power generated from non-renewable resources (e.g., natural gas), these resources would be exploited and expended now and in the near future regardless of the approved project, as the production and use of the carbon-based products that would become electricity transported by the approved project has been, or will be, approved by permitting agencies. Therefore, the primary and secondary impacts resulting from the Proposed Project or alternative(s) would be less than significant.

Accidents, such as the release of hazardous materials, could trigger irreversible environmental damage. As discussed in Section 4.9, "Hazards and Hazards Materials," construction of the Proposed Project or an alternative would involve limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, and oils, in order to fuel and maintain vehicles and other motorized equipment. An accidental spill of any of these substances could impact water and/or groundwater quality; if a spill of significant quantity were to occur,

the release could pose a hazard to construction workers and the public, as well as the environment. Considering the types and relatively minimal quantities of hazardous materials that would be used for the Proposed Project or alternative and the emergency response plans and other procedures that would be required by the APMs and existing regulations, accidental release is unlikely. State and federal regulations and safety requirements, as described in the regulatory setting in Section 4.9, would ensure that public health and safety risks would be maintained at acceptable levels, so that significant irreversible changes from accidental releases are not expected.

6.4 Growth Inducement

Section 15126.2(e) of the CEQA Guidelines requires an EIR to include a detailed statement of a proposed project's anticipated growth-inducing impacts. The analysis of growth-inducing impacts must discuss the ways in which a proposed project could foster economic or population growth or the construction of additional housing in the surrounding environment. The analysis must also address project-related actions that would remove existing obstacles to population growth, tax existing community service facilities and require construction of new facilities that cause significant environmental effects, or encourage or facilitate other activities that could, individually or cumulatively, significantly affect the environment. A project would be considered growth-inducing if it induces growth directly (through the construction of new housing or increasing population) or indirectly (such as increasing employment opportunities that would increase the population of the area or eliminating existing constraints on development that would encourage construction). Under CEQA, growth is not assumed to be beneficial, detrimental, or of little significance to the environment.

As described in Section 4.14, "Population and Housing," the Proposed Project would not include any new homes or businesses; therefore, it would not directly induce substantial population growth. The Proposed Project, on its own, would not extend electrical distribution service to new areas such that it would indirectly induce population growth. However, the Proposed Project, with buildout of the reasonably foreseeable distribution components, would expand electric distribution service capacity to accommodate future anticipated growth in the Paso Robles Distribution Planning Area (DPA). Following completion of the Proposed Project, PG&E would be able to provide electricity more effectively to new applications (e.g., new homes and businesses).

Without the Proposed Project, it is conceivable that PG&E would not be able to accommodate the level of growth that is anticipated in the DPA. As described in Chapter 2, *Project Description* and in the Proponent's Environmental Assessment (PEA) Appendix G, City of Paso Robles planners expect strong industrial growth to occur north of SR 46 (in particular within the Golden Hill Industrial Park and directly south of Paso Robles Airport along Dry Creek Road) within the next 10 years, and a resurgence of residential growth south of SR 46 (NEET West and PG&E 2020). Overall, city planners estimate a 50 percent increase in the population of Paso Robles by 2045 (NEET West and PG&E 2020). As such, while the Proposed Project, with buildout of the reasonably foreseeable distribution components, would serve the new growth anticipated by the city, it would not cause or result in this growth. The Proposed Project would accommodate the already anticipated growth.

Likewise, the alternatives under consideration would function similarly to the Proposed Project and would not directly result in new growth. Alternatives SS-1, PLR-1A, PLR-1C, SE-1A, and SE-PLR-2 would primarily solve the Transmission Objective of the Proposed Project and would not, on their own, increase electric distribution service capacity. While new distribution feeders could be built out from the substations sited at Bonel Ranch (Alternative SS-1) and Templeton Substation (Alternative SE-1A), this would occur in response to future forecasted growth, as described above for the Proposed Project. The power line routing alternatives (PLR-1A, PLR-1C, and SE-PLR-2) would merely connect new substations to the existing Paso Robles Substation, and would not affect distribution service capacity. Alternative PLR-3 would underground a portion of the Proposed Project's 70 kV overhead power line route and would not change the overall function of the Proposed Project. Finally, Alternatives BS-2 and BS-3 would address the Distribution Objective and would effectively expand electric distribution service capacity; however, these alternatives would be deployed to accommodate the same future growth as the Proposed Project and reasonably foreseeable distribution components and would not be growth-inducing for the reasons described above.

6.5 Cumulative Impacts

A cumulative impact refers to the combined effect of "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA Guidelines Section 15355). Cumulative impacts reflect "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor, but collectively significant projects taking place over a period of time." (CEQA Guidelines Section 15355[b]).

CEQA Guidelines Section 15130 (a) requires that an EIR address the cumulative impacts of a proposed project when:

- the combined impact of the project and other projects are significant; and
- the project's incremental effects are expected to be cumulatively considerable, or significant, when viewed in combination with the effects of past, current, and probable future projects.

An EIR does not need to discuss cumulative impacts that do not result in part from the project evaluated in the EIR.

CEQA Guidelines Section 15130 requires an analysis of cumulative impacts to contain the following elements:

- Either (a) a list of past, present, and probable future projects producing related or cumulative impacts, or (b) a summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect.
- A definition of the geographic scope of the area affected by the cumulative effect, and a reasonable explanation for the geographic limitation used.

- A summary of the environmental effects expected to result from those projects with specific reference to additional information stating where that information is available.

- A reasonable analysis of the combined (cumulative) impacts of the relevant projects.

It must also evaluate a proposed project's potential to contribute to the significant cumulative impacts identified, and discuss feasible options for mitigating or avoiding the project's contributions to any significant cumulative effects.

The discussion of cumulative impacts is not required to provide as much detail as the discussion of the effects attributable to the project alone. Rather, the level of detail should be guided by what is practical and reasonable.

6.5.1 Methods Used in this Analysis

As mentioned above, Section 15130 of the CEQA Guidelines provides two recommended approaches for analyzing and preparing an adequate discussion of significant cumulative impacts. The approaches as defined in Section 15130 of the CEQA Guidelines are either:

- the *list approach,* which involves listing past, present, and probable future projects producing related or cumulative impacts, including those projects outside the control of the lead agency; or

- the *projection approach,* which utilizes a summary of projections contained in an adopted local, regional, or statewide plan; a related planning document; or an adopted environmental document for such a plan that evaluated regional or area-wide conditions contributing to the cumulative impact.

This discussion utilizes the list approach for the cumulative impact analysis. The level of detail of a cumulative impact analysis should include a proposed project's geographic scope and other factors (e.g., a project's construction or operation activities, the nature of the environmental resource being examined, etc.) to ensure that the level of detail is practical and reasonable. The discussion focuses on the environmental resources that could be expected to be cumulatively affected by the Proposed Project, reasonably foreseeable distribution components, and alternatives in conjunction with other past, present, and reasonably foreseeable future projects.

Table 6-1 defines the geographic scope that will be used in the impact analysis for each of the resource areas in which the Proposed Project, reasonably foreseeable distribution components, and/or alternatives could contribute to cumulative impacts.

Table 6-1. Geographic Scope for Resources with Cumulative Impacts Relevant to the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives

Resource	Geographic Scope[1]	Explanation for the Geographic Scope
Aesthetics	Activity Area	This area covers the viewsheds and local visual character that would be affected by the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Agriculture and Forestry Resources	Activity Area	This area covers areas that may be disturbed during construction activities and where agricultural land could be converted to non-agricultural uses from the Proposed Project, reasonably foreseeable distribution components, and alternatives.
Air Quality[2]	Regional	This area covers the South Central Coast Air Basin where construction and operation (and associated air pollutant emissions) of the Proposed Project, reasonably foreseeable distribution components, and alternatives would occur.
Biological Resources	Greater Paso Robles Area	This includes greater Paso Robles area, as well as the localized areas that may be disturbed during construction activities and operation of the Proposed Project, reasonably foreseeable distribution components, and alternatives, as well as migratory nesting sites in the surrounding area.
Greenhouse Gas (GHG) Emissions[2]	Global	GHG emissions at any location affect the global climate.

Note:

1. "Activity area" includes the immediate areas in which physical actions that are part of the Proposed Project, reasonably foreseeable distribution components, and alternatives would take place.
2. Cumulative impacts related to air quality and GHG emissions are evaluated in the respective sections (4.3 and 4.8) and are not discussed in this chapter.

6.5.2 Cumulative Impact Analysis

Cumulative Setting

The effects of past and present actions have strongly influenced existing conditions. The following are the most important of these past and present actions:

- Population growth and associated development;
- Conversion of natural vegetation to developed land uses; and
- Introduction of nonnative plant and animal species.

In general, past activities are part of the existing conditions or environmental setting described for each resource topic. **Table 6-2** lists present and probable future activities that could cumulatively affect the environment and identifies the cumulative resource topics they affect along with the Proposed Project, reasonably foreseeable distribution components, and alternatives. Present and probable future activities were determined through internet searches of local planning agency websites and other publicly available databases, communications with City and County planning staff, and as disclosed through the public comment solicitation process. **Figure 6-1** shows the locations of these cumulative projects in relation to the Proposed Project, reasonably foreseeable distribution components, and alternatives. The project numbers listed in Table 6-2 correspond to the numbered locations in Figure 6-1.

Table 6-2. List of Reasonably Foreseeable Future Projects and Activities that May Cumulatively Affect Resources of Concern

Project		Summary of Future Project Activity	Implementation Status / Schedule	Distance to Proposed Project Component and/or Alternative	Resource Topics Cumulatively Affected
No.[1]	Title				
1	Paso Robles Wastewater Treatment Facility – Distribution System Facilities	New distribution pipelines that will deliver recycled water from the city's new tertiary treatment facility (completed in 2019) to east Paso Robles to irrigate golf courses, parks, and vineyards.	Construction anticipated to begin in 2020.	400 feet west of reconductoring segments for Proposed Project and Alternatives PLR-1A, PLR-1C	Air Quality, Biological Resources, GHG Emissions
2	Assisted Living Facility – The Oaks at Paso Robles	Assisted living facility on 2.8 acres (68,000 sq. ft.): 73 rooms, 24 memory care units, and 39 parking spaces.	Under construction in 2020.	0.3-mile south of reconductoring segments for Proposed Project and Alternatives PLR-1A, PLR-1C; adjacent to Alternative SE-PLR-2	Air Quality, GHG Emissions
3	Hilton Garden Inn	New 3-story hotel in two phases on 3.43 acres. Hotel includes 166 guest rooms and 176 parking spaces.	Under construction in 2020.	0.4-mile west of the Proposed Project's new 70 kV power line segment	Air Quality, GHG Emissions
4	First Step Homeless Services Center	Facility to provide living space and services to homeless individuals: 36 beds, 6,000 square feet, dining room, kitchen, gathering area, staff offices.	Construction began May 2020; anticipated opening June 2021.	400 feet west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A, PLR-1C	Air Quality, GHG Emissions
5	Paso Robles Youth Arts Foundation Center Expansion	7,000-sq. ft. expansion of performance/classroom space	Existing demolition began in spring 2020; construction	0.5-mile west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A, PLR-1C	Air Quality, GHG Emissions

Project		Summary of Future Project Activity	Implementation Status / Schedule	Distance to Proposed Project Component and/or Alternative	Resource Topics Cumulatively Affected
No.[1]	Title				
			anticipated in 2023		
6	Paso Robles Gateway Project	170 acres, 325 hotel rooms, 17 workforce residential units, 80 resort residential units, 30,000-sq. ft. conference center	City Council approved initial plans in June 2020.	0.8-mile west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A, PLR-1C; same distance west of Alternative SE-PLR-2	Aesthetics, Agricultural and Forestry, Air Quality, Biological Resources, GHG Emissions
7	Highway 46 East / Union Road Interchange Improvement (Caltrans)	2.5 miles of road improvements on Highway 46 East	Caltrans-funded and -approved for construction to commence in 2022/23.	Proposed Project's new 70 kV power line segment would cross the interchange north-south; northern reasonably foreseeable distribution line segment overlaps improvements	Air Quality, GHG Emissions
8	Creston Road Duplexes	20 residential duplexes	Approved January 2020; construction expected to begin 2021.	230 feet west of the reconductoring segments for the Proposed Project and Alternatives PLR-1A, PLR-1C	Air Quality, GHG Emissions

Notes:
1. Project numbers correlate with numbering in Figure 6-1.

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Bonel Ranch Substation Site (Alternative SS-1)

FTM Site 5

Estrella Substation (Proposed)

FTM Site 4

FTM Site 1

FTM Site 2

Paso Robles Substation

FTM Site 3

Templeton Substation

FTM Site 6

Templeton Substation Expansion (Alternative SE-1A)

San Miguel Substation

FTM Site 8

FTM Site 7

Atascadero Substation

San Miguel Inset Map

Main Map

Paso Robles

Atascadero Inset Map

Proposed Project

- Estrella Substation
- 70kV Route
- New Distribution Line Segments
- 70 kV Minor Route Variation 1
- Additional 21/12 kV Pad-Mounted Transformer

Existing Infrastructure

- Existing Substations

Project Alternatives

- Front-of-the-Meter (FTM) Battery Storage Sites (Alternative BS-2)
- Alternative SS-1: Bonel Ranch Substation Site
- Alternative SE-1A: Templeton Substation Expansion - 230/70 kV Substation
- Alternative PLR-1A: Estrella Route to Estrella Substation
- Alternative PLR-1C: Estrella Route to Bonel Ranch, Option 1
- Alternative PLR-1C: Minor Route Variation 1
- Alternative PLR-1C: Minor Route Variation 2
- Alternative PLR-3A: Strategic Undergrounding, Option 1
- Alternative PLR-3B: Strategic Undergrounding, Option 2
- Alternative SE-PLR-2: Templeton-Paso South River Road Route

- Cumulative Projects*
- Project No. 7**

*Names of cumulative projects can be found in Table 6-1

**Extent of Project No. 7 along Hwy 46

N

0 1 Miles

Horizon WATER and ENVIRONMENT

Figure 6-1
Cumulative Projects

Source: ESRI 2020, PG&E 2019, SCWA 2017

Note: The route variations shown are offset and simplified in order to display the alignments of the alternative routes that may overlap in places

Estrella Substation and Paso Robles Area Reinforcement Project

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6.5.3 Cumulative Impacts

The potential for the Proposed Project, reasonably foreseeable distribution components, and/or alternatives to contribute to a cumulatively significant impact is evaluated for all resource topics (with the exception of air quality and GHG emissions; see note below), as described in **Table 6-3**. If the Proposed Project, reasonably foreseeable distribution components, and/or alternatives would contribute to a cumulatively significant impact, that impact is evaluated further in the discussion that follows Table 6-3.

GHG emissions are a cumulative issue and are already addressed in Section 4.8, "Greenhouse Gas Emissions"; therefore, this topic is not discussed further in this section. Similarly, cumulative effects on air quality are addressed in Section 4.3, "Air Quality," and therefore are not discussed further in this section.

Table 6-3. Summary of Cumulatively Significant Impacts and the Contribution of the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives

Resource Topic	Impact from Past, Present, and Probable Future Projects	Contribution of the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives
Aesthetics	Other projects in the activity area could contribute to aesthetic impacts and collectively affect the region's visual character, potentially leading to a cumulatively significant impact.	The Proposed Project would have a significant and unavoidable impact on existing visual character in some areas. Alternative SE-PLR-2 also would have a significant and unavoidable impact. Other alternatives, as well as the reasonably foreseeable distribution components, would have adverse aesthetic effects (related to the addition of utility infrastructure), although these effects would be less than significant on their own. Impacts to visual character from the Proposed Project, Alternative SE-PLR-2, other alternatives, and/or the reasonably foreseeable distribution components have potential to combine with similar impacts from past, present, and probably future projects and result in a cumulative impact. This cumulative impact is analyzed further below.
Agriculture and Forestry Resources	Nearby cumulative projects could affect agriculture or forestry resources, potentially leading to a cumulatively significant impact.	The Proposed Project and Alternatives PLR-1A, PLR-1C, and SE-PLR-2 would have significant and unavoidable impacts on agriculture and forestry resources (i.e., conversion of Important Farmland to non-agricultural uses, and in the case of the Proposed Project, conflict(s) with existing zoning for agricultural use or a Williamson Act contract) in some areas. Other alternatives would have adverse effects on agriculture and forestry resources, but these

Resource Topic	Impact from Past, Present, and Probable Future Projects	Contribution of the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives
		effects would not be considered significant on their own. Impacts on agriculture and forestry resources from the Proposed Project, Alternatives PLR-1A, PLR-1C, and SE-PLR-2, and other alternatives have potential to combine with similar impacts from past, present, and probably future projects and result in a cumulative impact. This cumulative impact is analyzed further below.
Biological Resources	Cumulative projects in the area would have the potential to affect special-status species, riparian habitat or other sensitive natural communities, wetlands and other waters of the U.S., and wildlife movement, potentially leading to a cumulatively significant impact.	Construction and operation of the Proposed Project, reasonably foreseeable distribution components, and alternatives would have the potential to impact biological resources in some areas; however, these impacts would be avoided or minimized through implementation of APMs and mitigation measures, and thereby reduced to a less-than-significant level. Nevertheless, the potential exists for a cumulatively considerable incremental contribution to a significant cumulative impact. This cumulative impact is analyzed further below.
Cultural Resources	n/a	The impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives related to cultural resources would be site-specific and would be avoided or minimized through implementation of APMs and mitigation measures. These impacts would be less than significant on their own and would not result in a significant cumulative impact. No further analysis is required.
Energy	n/a	Construction of the Proposed Project, reasonably foreseeable distribution components, and alternatives would be conducted efficiently, would improve the reliability/accessibility of electricity in the Paso Robles area, and would not impede future use of renewable energy or energy efficiency. In addition, APMs AIR-1 through AIR-3 and Mitigation Measure AQ-1 would further reduce impacts by requiring proper maintenance of equipment and vehicles, utilization of newer equipment and vehicles where feasible, and shutting off engines when not in use. These impacts would be less than

Resource Topic	Impact from Past, Present, and Probable Future Projects	Contribution of the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives
		significant on their own and would not result in a significant cumulative impact. No further analysis is required.
Geology, Soils, Seismicity, and Paleontological Resources	n/a	The Proposed Project, reasonably foreseeable distribution components, and alternatives would have less-than-significant impacts related to geology, soils, seismicity, and paleontological resources because the Applicant would comply with applicable regulations and policies, as well as implement APMs to avoid or reduce loss of topsoil and potential impacts to paleontological resources. These impacts would be less than significant on their own and would not result in a significant cumulative impact. No further analysis is required.
Hazards and Hazardous Materials	n/a	The effects of the Proposed Project, reasonably foreseeable distribution components, and alternatives related to hazards and hazardous materials would be site-specific, temporary, and less than significant with implementation of APMs. Therefore, construction and operation of the Proposed Project, reasonably foreseeable distribution components, and alternatives would not considerably contribute to a significant cumulative impact. No further analysis is required.
Hydrology and Water Quality	n/a	The impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives on hydrology and water quality (e.g., stormwater discharges from construction areas or the substation) would be less than significant on the project level with implementation of APMs and compliance with the Construction General Permit (i.e., preparation and implementation of a stormwater pollution prevention plan [SWPPP]). The facilities would not require a substantial amount of water during construction or operation and would not substantially cumulatively affect groundwater supplies. As a result, the Proposed Project, reasonably foreseeable distribution components, and alternatives would not considerably

Resource Topic	Impact from Past, Present, and Probable Future Projects	Contribution of the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives
		contribute to a significant cumulative impact. No further analysis is required.
Land Use and Planning	n/a	The Proposed Project, reasonably foreseeable distribution components, and alternatives would not divide an established community or conflict with local plans. Transmission facilities are permitted in local zoning districts. Additionally, siting of transmission facilities under California Public Utilities Commission (CPUC) jurisdiction is not subject to local land use regulations. As a result, the Proposed Project, reasonably foreseeable distribution components, and alternatives would not considerably contribute to cumulative impact related to land use and planning. No further analysis is required.
Mineral Resources	n/a	The Proposed Project, reasonably foreseeable distribution components, and alternatives would not significantly affect the availability of mineral resources or impact known mineral resources sites in the area. As a result, they would not considerably contribute to a significant cumulative impact. No further analysis is required.
Noise	n/a	The Proposed Project and Alternatives SS-1, PLR-1A, PLR-1C, PLR-3, and SE-PLR-2 would have significant and unavoidable noise impacts, particularly due to the use of helicopters near sensitive receptors during construction. Other alternatives and the reasonably foreseeable distribution components would generate noise, but this would be less than significant on the project level. Due to the site-specific and temporary nature of the noise impacts from the Proposed Project, reasonably foreseeable distribution components, and alternatives, they would not considerably contribute to a significant cumulative impact. No further analysis is required.
Population and Housing	n/a	The Proposed Project, reasonably foreseeable distribution components, and alternatives would not induce population growth or displace substantial numbers of people or residences. Therefore, they would not contribute to a

Resource Topic	Impact from Past, Present, and Probable Future Projects	Contribution of the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives
		cumulatively significant impact. No further analysis is required.
Public Services	n/a	The Proposed Project, reasonably foreseeable distribution components, and alternatives would not substantially affect public services, as they would not induce population growth. Compliance with existing laws and regulations and implementation of mitigation measures would avoid or minimize potential effects related to fire, which could tax existing public fire services. For these reasons, the Proposed Project, reasonably foreseeable distribution components, and alternatives would not contribute considerably to a cumulatively significant impact. No further analysis is required.
Recreation	n/a	The impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives on recreation would be largely site-specific, temporary, and less than significant. The Proposed Project, reasonably foreseeable distribution components, and alternatives would not increase population such as to potentially increase use of existing parks and recreational facilities or require construction of new recreational facilities. As a result, there would be no considerable contribution to a cumulatively significant impact. No further analysis is required.
Transportation	n/a	Impacts of the Proposed Project, reasonably foreseeable distribution components, and alternatives on transportation would be largely site-specific, temporary, and less than significant. The Proposed Project, reasonably foreseeable distribution components, and alternatives would not create new housing or employment centers and would generate only minimal vehicle trips during operation. As a result, they would not contribute considerably to a cumulatively significant impact. No further analysis is required.

Resource Topic	Impact from Past, Present, and Probable Future Projects	Contribution of the Proposed Project, Reasonably Foreseeable Distribution Components, and Alternatives
Tribal Cultural Resources (TCRs)	n/a	Construction of the Proposed Project, reasonably foreseeable distribution components, and alternatives could uncover buried resources that could be determined to be TCRs; however, these effects would be avoided or minimized through implementation of APMs and mitigation measures. Due to these measures and the fact that the potential impacts to TCRs would be site-specific, the Proposed Project, reasonably foreseeable distribution components, and alternatives would not considerably contribute to a significant cumulative impact. No further analysis is required.
Utilities and Service Systems	n/a	The Proposed Project, reasonably foreseeable distribution components, and alternatives would have less-than-significant impacts on utilities and service systems and would not contribute considerably to a cumulatively significant impact. As noted above, the Proposed Project, reasonably foreseeable distribution components, and alternatives would not substantially increase population, such as to potentially require increased utility service, and would not require substantial water, wastewater, or solid waste service during construction or operation. No further analysis is required.
Wildfire	n/a	The Proposed Project, reasonably foreseeable distribution components, and alternatives would have potential to cause accidental ignition of a wildfire due to use of combustion-engine equipment during construction. Additionally, addition of electrified equipment and power lines could increase wildfire risk, although compliance with existing laws and regulations and (with the exception of the No Project Alternative) implementation of mitigation measures would reduce these potential impacts to a less than significant level. In general, the impact on wildfire risk would be site-specific and would not constitute a considerable contribution to a cumulatively significant impact. No further analysis is required.

Impact CUM-1. Cumulative Effects on Aesthetics

Proposed Project

Several of the projects identified in Table 6-2 would affect the visual character of the same area as the Proposed Project, although these effects would be largely temporary. Caltrans' highway improvements on State Route (SR) 46 at Union Road would affect views along that 2.5-mile stretch of roadway during construction but would not result in substantial permanent changes to visual character. Other projects, such as the Hilton Garden Inn and Creston Road Duplexes, would adversely affect the visual character and quality of the area during the construction phase, but would not be expected to substantially affect aesthetics over the long-term.

As discussed in Section 4.1, "Aesthetics," the Proposed Project's new 70 kV power line segment would have a significant and unavoidable impact on the long-term visual character along the Golden Hill Road portion of the alignment. The Estrella Substation also would permanently alter the sites' visual character from a rural/agricultural setting to a more industrial environment. While implementation of APM AES-2 and Mitigation Measure AES-1 would reduce the adverse effects, it would not reduce them to a level that is less than significant.

None of the other projects identified in Table 6-2 would permanently affect aesthetics in a similar way to the Proposed Project (e.g., through addition of above-ground industrial infrastructure); however, the construction activities for the other projects would result in similar temporary aesthetic impacts. Additionally, depending on the final design of the development projects (i.e., Projects 2 through 6 and 8), these projects could adversely affect the existing visual quality and character, particularly if the buildings and above-ground facilities are not well-designed and compatible with the surrounding landscape. In combination with the Proposed Project's aesthetic impacts, this would be a significant cumulative impact.

Overall, the Proposed Project would add to on-going impacts to the area from human development and would make a cumulatively considerable contribution to this significant cumulative impact. Apart from the mitigation measure already prescribed for the Proposed Project (i.e., Mitigation Measure AES-1), no other feasible mitigation is available to address this impact. Therefore, the Proposed Project's contribution to this cumulative impact would be **significant and unavoidable.**

Alternative SE-PLR-2: Templeton-Paso South River Road Route

Several of the projects identified in Table 6-2 would affect the visual character of the same area as Alternative SE-PLR-2. Construction of an assisted living facility at South River Road and Serenade Drive would be consistent with the surrounding area. Development of the Paso Robles Gateway Project would involve development of 170 acres with a hotel, conference center, and resort residential units; although this project would be located on the opposite (west) side of Hwy 46 from Alternative SE-PLR-2 facilities, the change in visual character would be substantial.

Alternative SE-PLR-2 would have significant impacts on long-term visual character along South River Road to Santa Ysabel Avenue. The new power line under Alternative SE-PLR-2 would change the visual character and quality of views of the landscape and would be noticeable to motorists and residences in the surrounding area. In particular, the segment along South River Road to Santa Ysabel Avenue would adversely affect the existing visual character and quality of

views, as this area is characterized by mature trees lining the road and rolling hills. Even with implementation of APM AES-2 and Mitigation Measure AES-1, the impacts would remain significant and unavoidable. In combination with the impacts of projects discussed in Table 6-2, Alternative SE-PLR-2 would contribute to a significant cumulative impact with regard to the area's existing visual character. Further, Alternative SE-PLR-2 would make a cumulatively considerable contribution to this significant cumulative impact. Apart from the mitigation measure already prescribed for Alternative SE-PLR-2 (i.e., Mitigation Measure AES-1), no other feasible mitigation is available to address this impact. Thus, Alternative SE-PLR-2's contribution to this cumulative impact would be **significant and unavoidable**.

Other Alternatives and Reasonably Foreseeable Distribution Components

Aesthetic impacts of the other alternatives (with the exception of the No Project Alternative) would be less than significant with implementation of APM AES-1, AES-2 and Mitigation Measure AES-1. Viewer concerns and exposure for these alternatives are generally lower than for the Proposed Project; therefore, effects on these areas' visual character and visual quality are also lower. Implementation of Mitigation Measure AES-1 ensures that the approved project includes landscaping, materials, and paint colors appropriate for project features and reduces visual contrast to the surrounding environment. For these reasons, other alternatives would not make a considerable contribution to a significant cumulative impact. Likewise, the reasonably foreseeable distribution components would not substantially affect aesthetics, such as to result in considerable contribution to a cumulative impact. While the reasonably foreseeable distribution components would degrade the existing visual character or quality to some degree, the distribution components would complete gaps in the existing distribution network, which already contains these types of facilities. Therefore, they would not substantially change existing conditions. Additionally, portions of the reasonably foreseeable distribution components, such as the distribution line segment north of the Estrella Substation site, which would pass through agricultural fields, would not be readily viewable from public locations. The No Project Alternative would have no effect on aesthetics. Therefore, the cumulative impact would be **less than significant.**

Impact CUM-2. Cumulative Effects on Agriculture and Forestry Resources

Proposed Project

The Paso Robles Gateway Project is located 0.8-mile west of the reconductoring segment for the Proposed Project and involves development of 170 acres, some of which is designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (e.g., development of a hotel, conference center, and resort residential units.) This project may also require temporary staging and construction work areas on adjacent lands under agricultural use and/or mapped as Important Farmland, resulting in temporary impacts to these uses. In the case of permanent conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural uses, development required for the Paso Robles Gateway Project would be considered significant. Temporary impacts to Prime Farmland, Farmland of Statewide Importance, and Unique Farmland would be significant if agricultural uses/crops were not adequately restored following construction and/or if soil productivity were adversely affected over the long term (e.g., due to soil compaction). This project, coupled with the Proposed Project, would result in a significant cumulative impact with regard to the conversion of Important Farmland to non-agricultural uses.

As discussed in Section 4.2, "Agricultural Resources," permanent conversion of agricultural land would occur from the Proposed Project from removal of existing vineyards at the substation site and removal of existing vineyard and row crops for the placement of structures as part of the 70 kV power line route construction. While implementation of Mitigation Measure AG-1 would ensure protection and preservation of agricultural lands elsewhere in the County, contribution of funds to the California Farmland Conservancy Fund would not fully offset the significant impact (because it would not create any new Important Farmland). Implementation of APM AG-1 would reduce the severity of the temporary effects of construction on the agricultural uses along the Alternative PLR-1A alignment, and Mitigation Measure AG-2 would reduce potential for adverse long-term construction-related impacts.

Due to the permanent conversion of Farmland, and in combination with on-going conversion of Farmland from other past, present, reasonably foreseeable future projects in the area, the Proposed Project would make a cumulatively considerable contribution to this significant cumulative impact. No other feasible mitigation is available to reduce this impact. Therefore, the Project's contribution to this cumulative impact would be **significant and unavoidable.**

Alternatives PLR-1A, PLR-1C, and SE-PLR-2

The Paso Robles Gateway Project is located 0.8-mile west of Alternatives PLR-1A, PLR-1C, and SE-PLR-2; and as discussed above, the project involves development of 170 acres, some of which is located within designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. This project may require temporary staging and construction work areas on adjacent lands under agricultural use and/or mapped as Important Farmland, resulting in temporary impacts to these uses. This project, coupled with Alternatives PLR-1A, PLR-1C, and SE-PLR-2, would result in a significant cumulative impact with regard to the conversion of Important Farmland to non-agricultural uses.

While permanent conversions of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland from Alternatives PLR-1A, PLR-1C, and SE-PLR-2 would be both small in acreage and isolated at pole locations spaced hundreds of feet apart (and, therefore, unlikely to substantially affect operations in the remainder of affected fields); these conversions would still be considered significant. Implementation of Mitigation Measure AG-1 would reduce the severity of impacts, but not to a level that is less than significant. Implementation of APM AG-1 and Mitigation Measure AG-2 would reduce the severity of the temporary effects of construction on the agricultural uses along the Alternative PLR-1A, PLR-1C, and SE-PLR-2 alignments.

Overall, due to the permanent conversion of Farmland, Alternatives PLR-1A, PLR-1C, and SE-PLR-2 would make a cumulatively considerable contribution to this significant cumulative impact. For Alternative PLR-1A, PLR-1C, and SE-PLR-2, the contribution to this cumulative impact would be **significant and unavoidable**.

Other Alternatives and Reasonably Foreseeable Distribution Components

None of the other alternatives, nor the reasonably foreseeable distribution components, would significantly affect agricultural resources at the project level. As discussed in Section 4.2, these facilities would either be sited in areas of lesser agricultural value (i.e., not Prime Farmland, Farmland of Statewide Importance, or Unique Farmland) or would otherwise not result in

conversion of Important Farmland. Thus, these alternatives and the reasonably foreseeable distribution components would not considerably contribute to cumulative impacts to agriculture and forestry resources, including on-going conversion of Farmland from other past, present, and reasonably foreseeable future projects. Thus, this impact would be **less than significant**.

Impact CUM-4. Cumulative Effects on Biological Resources

Proposed Project, Reasonably Foreseeable Distribution Components, and All Alternatives

Cumulative projects may have significant impacts on biological resources related to special-status species, sensitive habitats, federally protected or state-protected wetlands and waters, movement of native wildlife, or conflicts with local policies or habitat conservation plans. Development of the Paso Robles Gateway Project, for example, would convert 170 acres of undeveloped land to commercial and residential uses, potentially affecting biological resources. Caltrans' highway improvements on Hwy 46 beginning at Union Road would affect a 2.5-mile stretch of roadway and could pose a barrier to wildlife movement. In combination with the impacts of the Proposed Project, reasonably foreseeable distribution components, and all alternatives, these cumulative projects would result in a significant cumulative impact on biological resources.

The Proposed Project, reasonably foreseeable distribution components, and all alternatives (with the exception of the No Project Alternative) would result in significant impacts on biological resources, including burrowing owl, golden eagle, bald eagle, Swainson's hawk, nesting birds, pallid and Townsend's big-eared bat, Monterey dusky-footed woodrat, Salinas pocket mouse, American badger, and San Joaquin kit fox; riparian habitat, aquatic habitat, and blue oak woodland; and jurisdictional waters. However, these impacts would be reduced to a less-than-significant level with implementation of the APMs and mitigation measures (Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-4) identified in Section 4.4, "Biological Resources." These measures would ensure that impacts on protected species, communities, and habitats are reduced to a level that would protect their continued existence. The No Project Alternative would have no effect on biological resources and would not require mitigation.

Thus, the Proposed Project, reasonably foreseeable distribution components, and alternatives would not make a cumulatively considerable contribution to this significant cumulative impact. The contribution of the Proposed Project, reasonably foreseeable distribution components, and alternatives cumulative impact would be **less than significant with mitigation**.

Chapter 7
Report Preparation

California Public Utilities Commission

300 Capitol Mall, Suite 418
Sacramento, CA 95814
(415) 703-2782

Robert Peterson	Project Manager
Jack Mulligan	Counsel

Horizon Water and Environment, LLC

266 Grand Avenue, Suite 210
Oakland, CA 94610
(510) 986-1850

Tom Engels	Principal
Patrick Donaldson	Project Manager
Janis Offermann	Cultural Resources Practice Leader
Megan Giglini	Senior Associate
Allison Chan	Senior Associate
Julie Allison	Senior Associate
Eric Christensen	Senior Associate
Laura Prickett	Senior Associate
Johnnie Chamberlin	Associate
Emily Hyland	Associate
Carley Dutra	Associate
Robin Hunter	Associate
Alex Wolk	Associate
Viktoria Kuehn	Analyst
Ryan Johnson	Analyst
Dean Martorana	Analyst

Lorrie Jo Williams	Graphic Artist
Linda Littleton	Editor

Kevala Analytics, Inc.

404 Civic Center Drive, Suite 200
San Rafael, CA 94903

Aram Shumavon	Principal Computational Energy Analysis (CEA) Specialist
Laura Wang	Project Manager
Emmanuel Levijarvi	CEA Specialist
Teddy Ward	CEA Specialist
Karthik Vanumamalai	CEA Specialist
Cassandra Quaintance	Assistant CEA Specialist

ZGlobal, Inc.

604 Sutter Street, Suite 250
Folsom, CA 95630
(916) 985-9461

Brian Rahman	Director of Engineering
Omar Itani	Associate Transmission Engineer

The Sohagi Law Group, PLC

11999 San Vicente Boulevard, Suite 150
Los Angeles, CA 90049
(310) 475-5707

Nicole Gordon	Partner
Milja Miric	Associate

Chapter 8
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Chapter 7. Report Preparation

None.

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