SOUTHERN CALIFORNIA EDISON'S MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

CPUC A.13-10-021
SCH NO. 2014031073

Draft Environmental Impact Report

Prepared for
California Public Utilities Commission

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ACRONYMS

AADT	average annual daily traffic
AB	Assembly Bill
AC	alternating current
ACSR	aluminum conductor steel reinforced
AE	Agricultural Exclusive
af	acre-feet
afy	acre-feet per year
AGS	above ground surface
amsl	above mean sea level
A-P Zone	Alquist-Priolo Earthquake Fault Zone
APLIC	Avian Power Line Interaction Committee
APM	applicant proposed measure
AQMP	Air Quality Management Plan
ASCE	American Society of Civil Engineers
ASTM	American Society for Testing and Materials
BACT	best available conventional technology
BAT	best available technology
BCT	best conventional technology
B&GEPA	Golden and Bald Eagle Protection Act
bgs	below ground surface
BMP	best management practice
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAL FIRE	California Department of Forestry and Fire Protection
CalOSHA	California Occupational Safety and Health Administration
CalAm	California American Water Company
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board

CBC	Building Standards Code
CCR	California Code of Regulations
CCWMP	Calleguas Creek Watershed Management Plan
C&D	construction and demolition
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CDMG	California Division of Mines and Geology
CDF	California Department of Finance
CDPR	California Department of Parks and Recreation ("State Parks")
CEC	California Energy Commission
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFP	California fully protected species
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHP	California Highway Patrol
CIWMB	California Integrated Waste Management Board
CJUTCM	California Joint Utility Traffic Control Manual
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Corps	U.S. Army Corps of Engineers
COSCA	Conejo Open Space Conservation Agency
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPD	Conejo Recreation and Park District
CRPR	California Rare Plant Ranks
CRTDP	Cultural Resources Treatment and Discovery Plan
CSC	California Species of Special Concern
CSP	corrugated steel pipe
CSUCI	California State University, Channel Islands
CT	Candidate Species for listing as Threatened under the FESA

CUP	conditional use permit
CUPA	Certified Unified Program Agency
CVUSD	Conejo Valley Unified School District
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibels
District No. 1	Ventura County Waterworks District Number 1
DHS	California Department of Health Services
DMP	discharge monitoring plan
DOGGR	California Department of Conservation Division of Oil, Gas, and Geothermal Resources
DPM	diesel particulate matter
DPS	distinct population segment
DSM	demand side management
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EDMS	Emissions and Dispersion Modeling System
EIA	effective impervious area
EIR	Environmental Impact Report
ELF	extremely low frequency
EMF	electric and magnetic fields
EMS	emergency medical services
ENA	electrical needs area
EPRI	Electric Power Research Institute
ESA	Endangered Species Act
ESA	Environmental Science Associates
ESA	environmentally sensitive area
ºF	degrees Fahrenheit
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FC	Federal Candidate for Listing
FE	Listed as Endangered by the Federal Government
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FGC	Fish and Game Code
FMMP	Farmland Mapping and Monitoring Program
FPPA	Farmland Protection Policy Act
FRC	fault return conductor

FT	Listed as Threatened by the Federal Government
FTA	Federal Transit Administration
GHG	greenhouse gas
GIS	Geographic Information System
GO	General Order
GWh	gigawatt hour
GWP	global warming potential
HCP	Habitat Conservation Plan
HCTP	Hill Canyon Wastewater Treatment Plant
HFCs	hydrofluorocarbons
HWCL	Hazardous Waste Control Law
Hwy	highway
Hz	hertz
IARC	International Agency for Research on Cancer
IBC	International Building Code
IEEE	Institute of Electrical and Electronics Engineers
IPCC	Intergovernmental Panel on Climate Change
kcmil	thousand circular mill
KOP	key observation point
kV	kilovolt
kW	kilowatt (equal to 1000 watts)
LARWQCB	Los Angeles Regional Water Quality Control Board
LDAR	leak detection and repair
Leq	equivalent noise level
Lmax	Maximum Noise Level
LOS	Level of Service
LST	lattice steel tower
LUFT	leaking underground fuel tank
LUST	leaky underground storage tank
LWS	light-weight steel
LZ	landing zone
m	meter
MBTA	Migratory Bird Treaty Act
MEER	mechanical electrical equipment room
mgd	million gallons a day
mph	miles per hour

MRZ	Mineral Resource Zone
MS4s	municipal separate storm sewer systems
MSL	mean sea level
MTCO2e	metric tons of carbon dioxide equivalent
MUSD	Moorpark Unified School District
MVA	megavolt
MW	megawatts
MWTP	Moorpark Wastewater Treatment Plant
n/a	information not available
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCCP	natural community conservation plan
NCCPA	Natural Communities Conservation Plan Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
N_2O	nitrous oxide
NO	nitric oxide
NO_2	nitrogen dioxide
NO_3	nitrate
NO_x	nitrogen oxides
NOAA	National Oceanic and Atmospheric Administration
NOD	Notice of Determination
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OHP	Office of Historic Preservation
OSCAR	Open Space, Conservation, and Recreation
OSHA	U.S. Department of Labor Occupational Safety & Health Administration
PEA	Proponent's Environmental Assessment
PFCs	perfluorocarbons
PM	particulate matter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter

PM_{10}	particulate matter less than 10 microns in diameter
ppm	parts per million
PPV	peak particle velocity
PSHA	probabilistic seismic hazard assessment
PRC	Public Resources Code
PRCSD	City of Moorpark Parks, Recreation & Community Services Department
PTC	Permit to Construct
PV	photovoltaic
PVC	polyvinyl chloride
PVRPD	Pleasant Valley Recreation and Parks District
RCRA	Resource Conservation and Recovery Act
RHNA	Regional Housing Needs Assessment
RMS	root mean square
ROC	reactive organic compounds
ROG	reactive organic gases
ROW	right-of-way
RPS	Renewable Portfolio Standard
RWQCB	Regional Water Quality Control Board
SAC	stranded aluminum conductor
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCAB	South Central Coast Air Basin
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SDC	seismic design category
SE	Listed as Endangered by the State of California
SEL	sound equivalent level
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SIP	State Implementation Plans
SLF	Sacred Lands File
SMARA	Surface Mining and Reclamation Act
SO_2	sulfur dioxide
SPCC	Spill Prevention Control and Countermeasure Plan
Sq. ft.	square feet
SQMP	Storm Water Quality Management Program
SR	State Route
SRA	State Responsibility Areas

SRRE	Source Reduction and Recycling Element
SSC	Species of Special Concern
ST	Listed as Threatened by the State of California
SVLRC	Simi Valley Landfill and Recycling Center
SVP	Society for Vertebrate Paleontology
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
TAC	toxic air contaminant
TDS	total dissolved solids
TGM	Technical Guidance Manual
TMDL	Total Maximum Daily Load
T-P	Timberland Preserve
TRC	The Climate Registry
TSCA	Toxics Substances Control Act
TSDF	Treatment, Storage, and Disposal Facility
TSP	tubular steel pole
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tanks
V/C	volume to capacity
VCAPCD	Ventura County Air Pollution Control District
VCFD	Ventura County Fire Department
VCOE	Ventura County Office of Education
VCPD	Ventura County Parks Department
VCPWA	Ventura County Public Works Agency
VCSD	Ventura County Sheriff's Department
VCTC	Ventura County Transportation Commission
VCWPD	Ventura County Watershed Protection District
VISTA	Ventura Intercity Service Transit Authority
VOC	volatile organic compounds
WEAP	Worker Environmental Awareness Plan
WL	Birds on CDFW Watch List

EXECUTIVE SUMMARY

ES.1 Introduction

Southern California Edison (SCE), in its California Public Utilities Commission (CPUC) application for the Moorpark-Newbury 66 kilovolt (kV) Subtransmission Line Project (A.13-10-021), filed on October 28, 2013, requests a Permit to Construct (PTC) a new 66 kilovolt (kV) subtransmission line and related components pursuant to CPUC General Order (GO) No. 131-D (SCE, 2013a). The application includes the Proponent's Environmental Assessment (PEA) (SCE, 2013b) prepared pursuant to Rule 2.4 of CPUC's Rules of Practice and Procedure.

The Electrical Needs Area (ENA) defined by SCE for the Proposed Project is presently served by two substations within the Moorpark 66 kV Subtransmission System (the Moorpark System): the Newbury Substation and Pharmacy Substation. The Moorpark System is comprised of the 220/66/16 kV Moorpark Substation, approximately eleven 66/16 kV distribution substations, and various 66 kV customer-dedicated substations and poletop substations. The Moorpark System also includes various 66 kV subtransmission lines, and 16 kV, 4 kV and 2.4 kV distribution circuits. The Moorpark System serves customers located in the communities of western Simi Valley, Moorpark, Thousand Oaks, Newbury Park, Westlake Village, Agoura, Agoura Hills, Oak Park, Hidden Hills, Topanga Canyon, Calabasas, Malibu, and portions of eastern unincorporated Ventura County as well as portions of western unincorporated Los Angeles County.

In its application, SCE requested authorization to construct the new Moorpark-Newbury 66 kV Subtransmission Line and upgrade the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line to address forecasted overloads on a section of the existing line and to enhance reliability and operational flexibility.

ES.1.1 Background

In 2005, SCE initiated the Moorpark-Newbury 66 kV Subtransmission Line Project to address forecasted overloads on a section of the existing line and to enhance reliability and operational flexibility. In February 2009, the CPUC issued Executive Director's Action Resolution E-4225, finding that SCE's Moorpark-Newbury 66 kV Subtransmission Line Project qualified for an exemption from CPUC's GO No. 131-D permitting requirements, and did not have to go through a CEQA review. Construction of the project began in 2010. However, in April 2010, several individuals filed an Application for a Rehearing and in November 2011, all construction activity was halted due to issuance of CPUC Decision 11-11-019. This decision ordered SCE to cease construction activity, provide certain specified information, and to file a PTC application in order to proceed with completing construction of the project.

SCE filed an application (A. 13-10-021) with the CPUC in October 2013, for a PTC for the remaining portions of the project that have yet to be constructed (the Proposed Project). The application included the PEA, which evaluates the potential environmental impacts of the Moorpark-Newbury 66 kV Subtransmission Line, both past construction (the project) and construction to be completed (the Proposed Project). SCE anticipates that future construction activities of the Proposed Project would take approximately 10 months to complete upon CPUC approval.

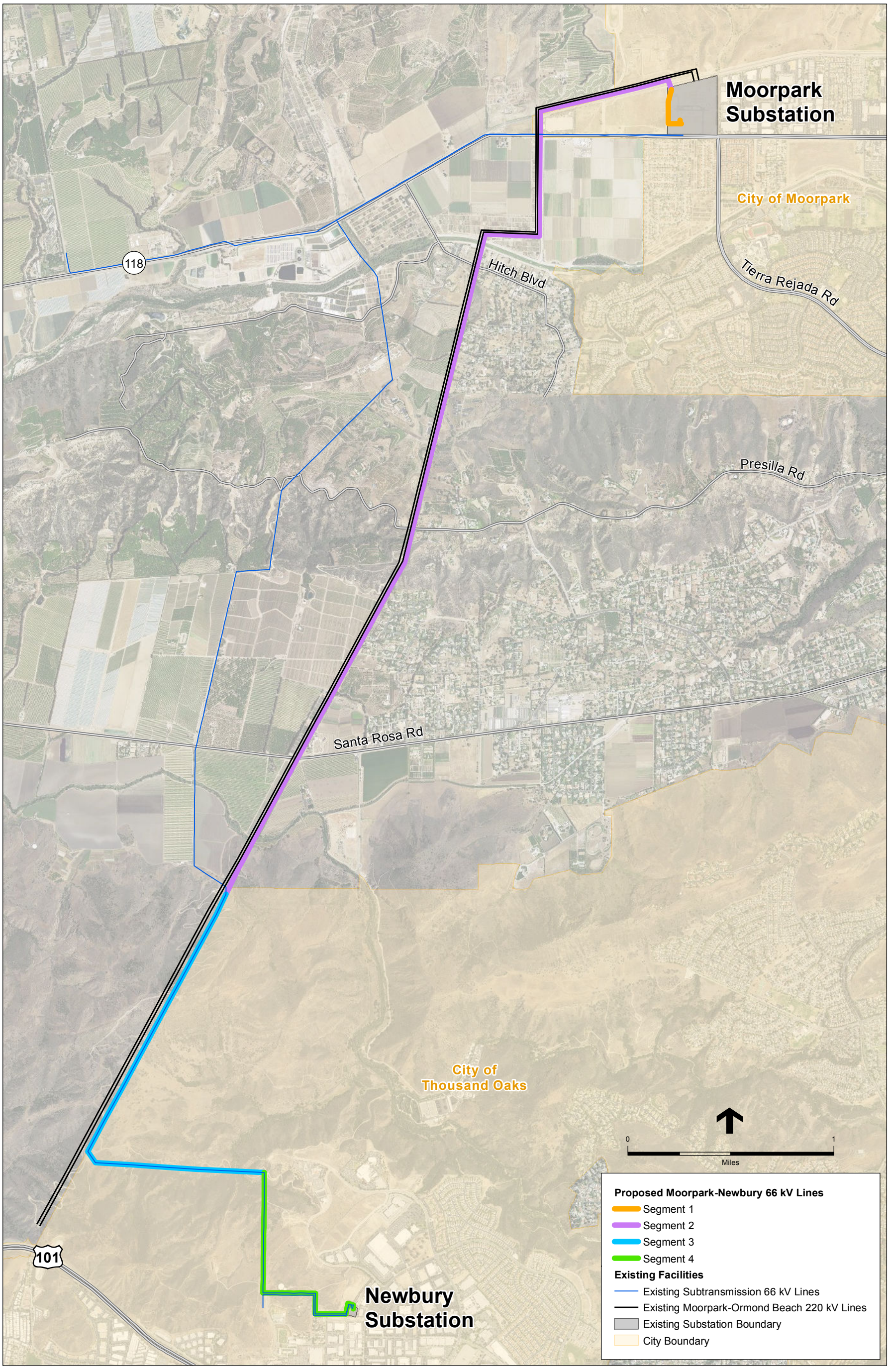
For the purposes of this CEQA review, the Proposed Project includes only those portions of the Moorpark-Newbury 66 kV Subtransmission Line project that have yet to be constructed. The existing system infrastructure includes portions of the Moorpark-Newbury line that were previously constructed, but not completed or operational. A description of past construction activities and the associated environmental effects are provided in Chapter 2, *Background*. A description of the environmental baseline, i.e., the environmental setting used to determine the impacts associated with the Proposed Project and alternatives, is provided in the introduction to Chapter 5, *Environmental Analysis*.

For clarity, the portion of the Moorpark-Newbury 66 kV Subtransmission Line that has already been constructed is referred to as "the project" or "past construction." Portions of the Moorpark-Newbury 66 kV Subtransmission Line yet to be constructed are referred to in this EIR as the "Proposed Project."

This Draft EIR has been prepared to consider the potential environmental impacts from the Proposed Project, and to identify and evaluate a range of alternatives. Based on this evaluation and the documentation which follows, the No Project Alternative 1 would not result in any significant and unavoidable impacts, and would therefore be the Environmentally Superior Alternative. However, CEQA Guidelines 15126.(e)(2) requires that if the Environmentally Superior Alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. In this case, the Proposed Project has been identified as the Environmentally Superior Alternative. See Sections ES.5.3, *Environmentally Superior Alternative*, and ES.5.4, *Environmentally Superior Alternative vs. No Project Alternative*.

ES.1.2 Proposed Project

The Proposed Project is located in the cities of Moorpark and Thousand Oaks, and in unincorporated Ventura County. The Proposed Project is located in approximately 9 miles of existing SCE rights-of-way (ROWs) between SCE's Moorpark Substation and Newbury Substation. For the purposes of this environmental review, the Proposed Project has been divided into four discrete geographic segments. From the Moorpark Substation, the subtransmission line would traverse varied land uses, including: industrial, light industrial, and agricultural uses in the City of Moorpark (Segments 1 and 2); predominantly agricultural and residential uses in unincorporated Ventura County (Segment 2); Conejo Open Space Conservation Agency (COSCA) lands in the Conejo Canyons (Segment 3); and additional open space to the termination of the subtransmission line at the Newbury Substation in the City of Thousand Oaks (Segment 4). See **Figure ES-1**, *Proposed Project Segments and Existing Substations*.



SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure ES-1

Proposed Project Segments and Existing Substations

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The Proposed Project would consist of the following main components (for a complete description of the Proposed Project, see Chapter 3, *Project Description*):

- **Segment 1:** Installation of approximately 500 feet of new underground 66 kV subtransmission line and a new line position in the 66 kV switchrack entirely within Moorpark Substation.

- **Segment 2:** Installation of two tubular steel pole (TSP) foundations, four TSPs, the upper portion of one TSP, and approximately 5 miles of conductor on new and existing TSPs along the new Moorpark-Newbury 66 kV Subtransmission Line on the south and east sides of SCE's existing Moorpark-Ormond Beach 220 kV ROW.

- **Segment 3:** Installation of eight TSP foundations, 13 double-circuit TSPs, and approximately 2 miles of conductor on the new Moorpark-Newbury 66 kV Subtransmission Line; reconductoring 2 miles of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line. Both of these subtransmission lines would be collocated on the new double-circuit TSPs. Removal of 14 existing lattice steel towers (LSTs) would also occur along this 2-mile segment.

- **Segment 4:** Installation of approximately 1 mile of conductor for the new Moorpark-Newbury 66 kV Subtransmission Line to be collocated with the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line on previously installed lightweight steel (LWS) poles into Newbury Substation. In addition, four TSP foundations, four TSPs, two LWS poles, and a new 66 kV subtransmission line position would be installed, and six wood poles would be removed at Newbury Substation. The existing subtransmission, distribution, and telecommunications facilities would be transferred onto the new TSPs and LWS poles.

The Proposed Project would be built entirely within existing ROWs, easements, public ROWs, and on existing SCE "fee-owned" property (i.e., property which is currently legally owned by SCE) (SCE, 2014). In addition, appropriate permits, licenses, and/or property rights would be obtained for flood control, railway, and roadway crossings. If temporary construction access is needed, SCE would work with property owners to secure appropriate rights or permission.

SCE identified the objectives for the Proposed Project in its PEA (SCE, 2013b) as follows:

- Add 66 kV subtransmission line capacity to meet forecasted electrical demand while providing long-term, safe and reliable electrical service in the ENA.

- Maintain sufficient voltage at the 66 kV substation buses during normal and abnormal system conditions.

- Provide greater operational flexibility to transfer load between 66 kV subtransmission lines and substations serving the ENA.

- Maintain and improve system reliability within the ENA.

- Utilize existing facilities constructed to date for the Project to minimize environmental impacts and shorten the construction schedule.

- Utilize existing ROW and manage existing ROW in a prudent manner in expectation of possible future needs.

- Design and construct the project in conformance with SCE's applicable engineering, design, and construction standards for substation, transmission, subtransmission, and distribution system projects.

According to SCE, the Proposed Project is needed to ensure the availability of safe and reliable electric service to meet customer demand in the ENA. Specifically, the Proposed Project would address: (1) a projected voltage drop that would exceed the acceptable five percent limit on the 66 kV bus at Newbury Substation under abnormal system conditions; and (2) a projected overload on the Moorpark-Newbury tap of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line under a normal system configuration.

To better define the basic objectives of the Proposed Project for use in the alternatives screening process, the CEQA team conducted an independent assessment of the objectives. The basic project objectives identified by the CEQA team based on the additional analysis are:

- Add capacity to meet forecasted electrical demand while providing long-term, safe and reliable electrical service in the ENA.
- Maintain sufficient voltage in accordance with applicable requirements during normal and abnormal system conditions.
- Maintain system reliability within the ENA.
- Utilize existing ROW and manage existing ROW in a prudent manner in expectation of possible future needs.
- Maintain consistency with the Garamendi Principles passed in Senate Bill (SB) 2431 (Stats. 1988, Ch. 1457) by: (1) using existing ROW by upgrading existing transmission facilities, where technically and economically justifiable; and (2) encouraging the expansion of existing ROW when construction of new transmission lines is required, where technically and economically feasible (CEC, 2007).
- Maintain consistency with CPUC GO 95.
- Design and construct the Proposed Project in conformance with SCE's applicable engineering, design, and construction standards for substation, transmission, subtransmission, and distribution system projects.

ES.1.3 Summary of Public Involvement Activities

On Wednesday, March 26, 2014, the CPUC published and distributed a Notice of Preparation (NOP) to solicit input from federal, state, and local agencies, and the public on the scope and content of information to be considered in this EIR for the Proposed Project. The NOP solicited both written and verbal comments on the EIR's scope during a 30-day comment period and provided information about an educational workshop/public scoping meeting. Additionally, the NOP presented the background, purpose, description, and location of the Proposed Project and potential issues to be addressed in the EIR.

In addition to the NOP, the CPUC notified the public about the public scoping meeting through legal advertisements in the Ventura County Star on March 28, 2014, and April 4, 2014; and the Proposed Project website at: http://www.cpuc.ca.gov/Environment/info/esa/Moorpark_Newbury/index.html

The CPUC conducted the public scoping meeting/educational workshop on Thursday, April 10, 2014, at Santa Rosa Technology Magnet School, located at 13282 Santa Rosa Road, Camarillo, California. The meeting was held from 6:30 p.m. to 8:30 p.m. Meeting attendees were provided with materials including presentation slides, written comment forms, and speaker cards.

During the workshop, the CPUC provided explanations concerning participants and their roles, the CPUC's decision and environmental review process, and the opportunities that existed for public participation. During the scoping meeting, the CPUC provided a Proposed Project overview, presented Proposed Project alternatives identified by SCE, solicited ideas about other possible alternatives, outlined next steps in the environmental review, and accepted public comments. The sign-in sheet from the scoping meeting and a copy of the scoping meeting presentation are provided in Appendix A.

Fifteen members of the public provided comments on the Proposed Project during the scoping meeting and the CPUC received 42 additional comments in writing during the written comment period, which closed on April 25, 2014. Appendix A, *Scoping Report*, of this Draft EIR contains a detailed description of all verbal and written comments received, a description of comments that are not within the scope of CEQA, notes from the oral comments, and copies of the written comments.

In addition, on behalf of the CPUC, ESA hosted a conference call on April 9, 2014, with the City of Thousand Oaks to receive input on the scope of the EIR analysis.

ES.1.4 Areas of Controversy / Public Scoping Issues

Local citizens provided the majority of the comments during the scoping process. In addition, comments were received from the following organizations and government agencies:

- California Department of Transportation;
- California Department of Fish and Wildlife;
- Santa Rosa Valley Municipal Advisory Council;
- Ventura County Board of Supervisors;
- Ventura County Planning Division;
- Ventura County Watershed Protection District;
- Ventura County Air Pollution Control District; and
- Ventura County Integrated Waste Management Division.

The overarching themes in the written and oral comments received are as follows:

- Project goals and objectives;

- How to define the actions of the Proposed Project;
- Project need;
- Impacts on scenic views from past and proposed activities;
- Impacts from loss of agricultural land from past and proposed activities;
- Air quality impacts associated with earth moving activities during construction;
- Impacts to wildlife and plant life, particularly to sensitive species and riparian habitat;
- Impacts to cultural and archeological resources in Santa Rosa Valley;
- Impacts to hydrology and water quality;
- Impacts to land use and planning, particularly to residential neighborhoods within the Proposed Project's alignment;
- Noise impacts from operation of the subtransmission lines;
- Impacts on public health and safety, particularly fire danger, Valley Fever and Electromagnetic Fields (EMF);
- Impacts to transportation and traffic;
- Cumulative impacts;
- Environmental review of past construction activities related to the Moorpark-Newbury 66 kV subtransmission line; and
- Alternatives to be considered and analyzed.

ES.2 Alternatives

As described in Chapter 4, *Project Alternatives*, Alternatives to SCE's Proposed Project are identified and evaluated in accordance with CEQA Guidelines. CEQA Guidelines (§15126(a)) state:

> *An EIR shall describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.*

CEQA Guidelines (§15364) define feasibility as:

> *. . . capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.*

Alternatives to the Proposed Project were presented by SCE in its PEA or developed by the EIR preparers based upon public input and independent analysis. Particular emphasis was placed on developing feasible alternatives that would reduce impacts to air quality and from noise exposure. In total, the alternatives screening process culminated in the identification and screening of approximately six potential alternatives to SCE's Proposed Project, and one combination of two alternatives. These alternatives range from routing location adjustments for new subtransmission lines, to reconductoring or replacement of existing subtransmission lines, to reconnecting an

existing generator to the Moorpark System. "Non-wires and system alternatives"[1] and two No Project Alternatives are addressed as well.

Alternatives to the Proposed Project were screened according to CEQA guidelines to determine those alternatives to carry forward for analysis in the EIR and alternatives to eliminate from detailed consideration. The alternatives were primarily evaluated according to: (1) whether they would meet most of the basic CEQA objectives; (2) whether they would be feasible considering legal, regulatory, and technical constraints; and (3) whether they have the potential to substantially lessen any of the significant effects of the Proposed Project.[2] Other factors considered, in accordance with CEQA Guidelines (§15126.6(f)), were site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, jurisdictional boundaries, and proponent's control over alternative sites. Economic factors or costs of the alternatives (beyond economic feasibility) were not considered in the screening of alternatives since CEQA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of project objectives or would be more costly" (§16126.6(b)).

The detailed results of the alternatives screening analysis are contained in Chapter 4, *Project Alternatives,* of this EIR. The alternatives screening process did not identify any alternatives that would meet most of the basic Proposed Project objectives, be feasible, and avoid or substantially reduce potential environmental effects of the Proposed Project. The No Project alternatives listed below have been selected for detailed analysis in the EIR, as required by CEQA. Draft EIR Section 4.5, *Alternatives Eliminated from Full EIR Evaluation,* provides information related to other alternatives considered and the rational for elimination from further consideration. A comparison of the environmental advantages and disadvantages of the Proposed Project and alternatives are evaluated in Chapter 6, *Comparison of Alternatives*, of this EIR.

ES.2.1 Alternatives Fully Evaluated in this EIR

No Project Alternative 1

Under the No Project Alternative 1, the Proposed Project would not be implemented and none of the Proposed Project objectives would be met, but all of the infrastructure already constructed for the project would remain in place. The ENA would potentially experience a shortage of electricity and the electrical system could become vulnerable to upset. The improved system reliability and operating flexibility associated with the Proposed Project would not occur. Therefore, the system would experience system-wide power flow and reliability problems due to overloading of the existing system, such as curtailed generation, thermal overload, and blackouts.

1 "Non-wires alternatives" include methods of meeting project objectives that do not require major transmission lines (e.g., renewable energy supplies, conservation and demandside management, etc.).

2 At the screening stage, it is neither possible nor legally required to evaluate all of the impacts of the alternatives in comparison to the Proposed Project with absolute certainty, nor is it possible to quantify impacts. However, it is possible to identify elements of an alternative that are likely to be the sources of impact and to relate them, to the extent possible, to general conditions in the subject area.

No Project Alternative 2 - Infrastructure Removal

Under No Project Alternative 2, the Proposed Project would not be construction and none of the Proposed Project objectives would be met. In addition, the infrastructure already constructed for the project would be removed, with the exception of the previously installed LWS poles and energized conductor. It would be up to SCE to decide whether or not to remove the infrastructure already installed at Moorpark Substation and Newbury Substation as described in Draft EIR Sections 2.3.1 and 2.3.4. No Project Alternative 2 would also not achieve any of the Proposed Project objectives, and similar to No Project Alternative 1, could result in the ENA experiencing a shortage of electricity, the effects of which would include the electrical system becoming vulnerable to upset.

ES.3 Environmental Impacts and Mitigation Measures

ES.3.1 Impact Assessment Methodology

Chapter 5, *Environmental Analysis*, provides a comprehensive analysis and assessment of impacts and mitigation measures for the Proposed Project and alternatives. This chapter is divided into sections for each environmental issue area (e.g., Air Quality, Biological Resources, etc.) that contain the environmental and regulatory settings, and impacts and mitigation measures for the Proposed Project and each alternative. The analysis of environmental impacts is based upon the environmental setting applicable to each resource/issue and the manner in which the construction, operation, and maintenance of the Proposed Project or alternatives would affect the environmental setting and related resource conditions. In accordance with CEQA requirements and Guidelines, the impact assessment methodology also considers the following three topics: (1) the regulatory setting, and whether the Proposed Project or alternatives would be consistent with adopted federal, state, and local regulations and guidelines; (2) growth-inducing impacts; and (3) cumulative impacts. Regulatory compliance issues are discussed in each resource/issue area section. The EIR document is organized according to the following major issue area categories:

5.1 Aesthetics;
5.2 Agriculture and Forestry Resources;
5.3 Air Quality;
5.4 Biological Resources;
5.5 Cultural Resources;
5.6 Energy Conservation;
5.7 Geology and Soils;
5.8 Greenhouse Gas Emissions;
5.9 Hazards and Hazardous Materials;
5.10 Hydrology and Water Quality;
5.11 Land Use and Planning;
5.12 Mineral Resources;
5.13 Noise;
5.14 Population and Housing;
5.15 Public Services;
5.16 Recreation;
5.17 Transportation and Traffic; and
5.18 Utilities and Service Systems.

In order to provide for a comprehensive and systematic evaluation of potential environmental consequences to the resource/issue areas, the environmental impact assessments for the Proposed Project and alternatives are based upon a classification system, with the following four associated definitions:

Class I: Significant; cannot be mitigated to a level that is less than significant;

Class II: Significant; can be mitigated to a level that is less than significant;

Class III: Less than significant, no mitigation required; and

Class IV: Beneficial impact.

ES.3.2 Applicant Proposed Measures

In the PEA SCE identified a number of project features that were implemented to avoid or minimize environmental impacts during past construction activities associated with the project (SCE, 2013b). SCE has committed to implementing the same project features to avoid or reduce potential impacts of the Proposed Project (which they refer to as "future construction activities"). SCE's project features are identified and numbered in this EIR as Applicant Proposed Measures (APMs) because they would be implemented as part of SCE's Proposed Project, and are not considered CPUC "mitigation measures." For a complete description of each APM, see EIR Chapter 3, *Project Description*, Section 3.8, *Applicant Proposed Measures*, Relevant APMs are also listed in applicable resource sections in Chapter 5.

Moreover, the Project Description incorporates procedures or protocols which directly relate to how the Proposed Project would be constructed, and which were considered as part of the Proposed Project during preparation of this EIR. The Project Description, therefore, upon adoption of the Final EIR, becomes part of the Mitigation Monitoring, Reporting and Compliance Program, and the construction components and methods therein would be monitored by the CPUC.

ES.3.3 Mitigation Measures

The EIR describes feasible measures that would minimize significant adverse impacts (CEQA Guidelines §15226.4). Within each issue area, mitigation measures are recommended where environmental effects could be substantially minimized. The mitigation measures recommended by this study have been identified in the impact assessment sections of the EIR and are presented in Mitigation Monitoring, Reporting, and Compliance Program (MMRCP) in Chapter 10 of this EIR.

ES.3.4 Findings

An overview of environmental impacts by resource area is provided below based on the detailed impact finding and mitigation measures for the Proposed Project and alternatives provided in Chapter 5, *Environmental Analysis*. Section E.S.6, *Impact Summary Tables*, provides a more detailed summary of all the environmental impacts and mitigation measures for the Proposed Project and alternatives, based on technical review and evaluation against the environmental and regulatory setting.

No Impact

No Project Alternative 1 would have no impact for all resource areas. No impact would occur from the Proposed Project and No Project Alternative 2 for the following resource areas:

- Land Use and Planning;
- Mineral Resources; and
- Public Services.

Less than Significant and Less than Significant with Mitigation

For the Proposed Project and No Project Alternative 2, the following environmental impacts were determined to be less than significant or less than significant with mitigation (i.e., Class III and Class II, respectively).

- Aesthetics;
- Agriculture and Forestry Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Population and Housing;
- Recreation;
- Transportation and Traffic; and
- Utilities and Service Systems.

Significant Unmitigable

As discussed in Section ES.4.2, *Summary Of Significant (Class I) Unmitigable Environmental Impacts*, for the Proposed Project and No Project Alternative 2, environmental impacts would be significant and unmitigable (Class I), even with implementation of feasible mitigation measures, in the following areas:

- Air Quality; and
- Noise.

ES.4 Summary Comparison of the Proposed Project and Alternatives

ES.4.1 Methodology

CEQA requires identification of an environmentally superior alternative, but does not provide specific direction regarding the methodology of alternatives comparison. Each project must be evaluated for the issues and impacts that are most important; this will vary depending on the project type and the environmental setting. Issue areas that are generally given more weight in comparing alternatives are those with significant impacts. Impacts that are easily mitigable to less than significant levels are considered to be less important.

The following methodology was used to compare alternatives in this EIR:

Step 1: **Identification of Alternatives.** As described in Chapter 4, *Project Alternatives*, an alternatives screening process was used to identify six alternatives to the Proposed Project. That screening process identified no alternatives for detailed EIR analysis that would avoid or substantially lessen any of the significant effects of the Proposed Project, while obtaining the basic CEQA objectives for the Proposed Project, and being feasible. Two "no project" alternatives were identified for detailed EIR analysis.

Step 2: **Determination of Environmental Impacts.** The environmental impacts of the Proposed Project and the two no project alternatives were identified in Sections 5.1 through 5.18.

Step 3: **Comparison of Proposed Project with Alternatives.** The environmental impacts of the Proposed Project were compared to the environmental impacts of each of the no project alternatives to determine the Environmentally Superior Alternative.

ES.4.2 Summary of Significant (Class I) Unmitigable Impacts

As depicted in **Table ES-1**, *Summary of Significant Unmitigable (Class I) Environmental Impacts of the Proposed Project and Alternatives*, the Proposed Project and No Project Alternative 2 would result in significant and unmitigable impacts pertaining to noise and air quality.

TABLE ES-1
SUMMARY OF SIGNIFICANT UNMITIGABLE (CLASS I) ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

Proposed Project/ Alternative	Significant (Class I) Impacts
Proposed Project	Construction-related daily exhaust emissions of NO_x (maximum of approximately 346 pounds per day) would exceed the applicable significance threshold, resulting in emissions that could contribute to a violation of ozone air quality standards, which would be individually significant as well as cumulatively considerable.
	Daytime construction activities associated with at least one conductor stringing site and one helicopter landing zone would exceed the Ventura County construction noise threshold criteria, and nearly all nighttime construction activities within 1,000 feet of Ventura County sensitive receptors would exceed the Ventura County construction noise threshold criteria. Potential nighttime construction-related activities would generate noise levels that would substantially increase ambient noise levels in the cities of Moorpark and Thousand Oaks.
No Project Alternative 2	Construction-related daily exhaust emissions of NO_x (maximum of approximately 216 pounds per day) would exceed the applicable significance threshold, resulting in emissions that could contribute to a violation of ozone air quality standards, which would be individually significant as well as cumulatively considerable.
	Construction activities associated with TSPs and foundation removal would likely exceed the Ventura County construction noise threshold criteria. In the unlikely event that nighttime construction was required, construction-related nighttime noise levels would substantially increase ambient noise levels in the cities of Moorpark and Thousand Oaks.

ES.4.3 Environmentally Superior Alternative

Section ES.5, *Impact Summary Tables*, summarizes the environmental impact conclusions of the Proposed Project and alternatives. Implementation of the Proposed Project and No Project Alternative 2 would result in significant and unavoidable (Class I) impacts pertaining to air quality and noise. A significant and unavoidable impact on air quality is identified for construction activities that would generate ozone precursor emissions (i.e., nitrogen oxides [NO_x]) that could contribute substantially to a violation of ozone air quality standards; this impact is also cumulatively considerable. Significant and unavoidable noise-related impacts are also identified for the Proposed Project for construction activities that would generate noise levels in unincorporated Ventura County that would exceed Ventura County construction noise threshold criteria during the day or at night, and for potential nighttime construction activities in the cities of Moorpark and/or Thousand Oaks. Significant and unavoidable noise-related impacts are also identified for No Action Alternative 2 for construction activities that would generate noise levels in unincorporated Ventura County that would exceed Ventura County construction noise threshold criteria.

No Project Alternative 1 would not result in any significant and unavoidable impacts, and would therefore be the Environmentally Superior Alternative. The Proposed Project would not be built and would therefore have no environmental impacts related to project construction, operation, and maintenance. However, from an operational perspective, none of the Proposed Project objectives would be achieved and demand for electricity in the Electrical Needs Area (ENA) would not be adequately met. The ENA would potentially experience a shortage of electricity and the electrical system could become vulnerable to upset until a new project could be designed, permitted, and constructed to provide additional transmission capacity and reliability to the area. The improved system reliability and operating flexibility associated with the Proposed Project would not occur. Therefore, without upgrades to the existing system, as new facilities are added, the system would experience system-wide power flow and reliability problems due to overloading of the existing system, such as curtailed generation, thermal overload, and blackouts.

No Project Alternative 2 would also not achieve any of the Proposed Project objectives, and similar to No Project Alternative 1, could result in the ENA experiencing a shortage of electricity, the effects of which would include the electrical system becoming vulnerable to upset until a new project could be designed, permitted, and constructed to provide additional subtransmission capacity and reliability to the area. No Project Alternative 2 would result in beneficial impacts to aesthetics as it would result in removal of industrial infrastructure from the viewshed. However, like the Proposed Project, it would result in significant and unavoidable impacts pertaining to air quality and noise, and greater impacts (Class II and Class III) than No Project Alternative 1 for the following resource areas: agriculture and forestry resources, biological resources, cultural resources, energy conservation, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, population and housing, recreation, traffic and transportation, and utilities and service systems.

CEQA Guidelines Section 15126(e)(2) requires that if the Environmentally Superior Alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative

among the other alternatives. As discussed in Chapter 4, *Project Alternatives*, the EIR team looked for alignment and/or system alternatives to the Proposed Project that could feasibly accomplish most of the basic objectives of the Proposed Project and could avoid or substantially lessen one or more of the significant effects (CEQA Guidelines §15126.6(c)), but did not identify any alternatives that met these criteria. Therefore, the Proposed Project would be the Environmentally Superior Alternative, as there are no suitable alternatives that are not "no project" alternatives.

ES.5 Impact Summary Tables

Tables ES-2, *Proposed Project vs. Alternatives Summary of Environmental Impact Conclusions*, and **Table ES-3**, *Summary of Impacts and Mitigation for the Proposed Project*, on the following pages summarize all identified impacts of the Proposed Project (Table ES-2) and alternatives (Table ES-3). For each impact, the following information is presented: impact number and title, impact class (Class I, II, III, or IV), applicable mitigation measure, and residual impact (whether significant or less than significant).

TABLE ES-2
PROPOSED PROJECT VS. ALTERNATIVES
SUMMARY OF ENVIRONMENTAL IMPACT CONCLUSIONS

Resource Area	Proposed Project	No Project Alternative 1	No Project Alternative 2
Aesthetics	Impacts determined to be Class II and Class III. **Most Impact**	There would be no impact.	Impacts would be less than the Proposed Project for construction, and beneficial for operations. **Least Impact**
Agriculture and Forestry Resources	Impacts determined to be Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be less than the Proposed Project.
Air Quality	Impacts determined to be Class I, Class II, and Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Biological Resources	Impacts determined to be Class II and Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Cultural Resources	Impacts determined to be Class II and Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than the Proposed Project.
Energy Conservation	Energy consumption impacts determined to be Class III; impacts to energy supplies/capacity/resources would be Class IV. **Most Impact** related to energy consumption. **Least Impact** related to energy supplies/capacity/resources.	Impacts would be less than the Proposed Project related to energy consumption, and greater than the Proposed Project related to energy supplies/capacity/resources. **Least Impact** related to energy consumption.	Impacts would similar to but slightly less than the Proposed Project related to energy consumption and greater than the Proposed Project related to energy supplies/capacity/resources.
Geology and Soils	Impacts determined to be Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Greenhouse Gas Emissions	Impacts determined to be Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Hazards and Hazardous Materials	Impacts determined to be Class II and III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Hydrology and Water Quality	Impacts determined to be Class II. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to, but slightly less than Proposed Project.

TABLE ES-2 (Continued)
PROPOSED PROJECT VS. ALTERNATIVES
SUMMARY OF ENVIRONMENTAL IMPACT CONCLUSIONS

Resource Area	Proposed Project	No Project Alternative 1	No Project Alternative 2
Land Use and Planning	There would be no impact. **No Preference**	There would be no impact. **No Preference**	There would be no impact. **No Preference**
Mineral Resources	There would be no impact. **No Preference**	There would be no impact. **No Preference**	There would be no impact. **No Preference**
Noise	Impacts determined to be Class I and III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar but slightly less than the Proposed Project.
Population and Housing	Impacts determined to be Class III. **No preference**	There would be no impact. **Least Impact**	Impacts would be similar to the Proposed Project. **No preference**
Public Services	There would be no impact. **No Preference**	There would be no impact. **No Preference**	There would be no impact. **No Preference**
Recreation	Impacts determined to be Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Transportation and Traffic	Impacts determined to be Class II and Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Utilities and Service Systems	Impacts determined to be Class III. **No Preference**	There would be no impact. **Least Impact**	Impacts would be similar to the Proposed Project. **No Preference**

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Aesthetics			
Impact 5.1-1: The Proposed Project could have an adverse effect on scenic vistas.	Class III	None required.	Less than significant.
Impact 5.1-2: Use of temporary staging and laydown areas during the construction period would result in adverse impacts to visual quality.	Class II	**Mitigation Measure 5.1-2a:** SCE shall not place equipment at the laydown or conductor stringing areas any sooner than two weeks prior to the required use. **Mitigation Measure 5.1-2b:** SCE shall coordinate with the Conejo Open Space Conservation Agency (COSCA) to ensure that designated trails in the vicinity of the Proposed Project are not blocked by the laydown or conductor stringing areas. SCE shall coordinate with COSCA to post signage at trailheads within the Conejo Canyons Open Space area, alerting recreationalists to construction locations and dates**.**	Less than significant.
Impact 5.1-3: Use of temporary construction conductor stringing sites during the approximately 10-month construction period could result in adverse impacts to visual quality.	Class II	Implement Mitigation Measures 5.1-2a and 5.1-2b	Less than significant.
Impact 5.1-4: Vegetation clearance during construction could result in adverse impacts to visual quality.	Class III	None required.	Less than significant.
Impact 5.1-5: The Proposed Project could substantially degrade the existing visual character or quality of the Proposed Project site and its surroundings from public views.	Class III	None required.	Less than significant.
Impact 5.1-6: If night lighting is required during construction, the Proposed Project could adversely affect nighttime views in the Proposed Project area.	Class II	**Mitigation Measure 5.1-6:** SCE shall design and install all lighting at Project facilities, including construction and storage yards and staging areas, such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. SCE shall submit a *Construction Lighting Mitigation Plan* to the CPUC for review and approval at least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SCE shall not order any exterior lighting fixtures or components until the *Construction Lighting Mitigation Plan* is approved by the CPUC. The Plan shall include but is not limited to the following measures: • Lighting shall be designed so exterior lighting is hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the Project boundary. • All lighting shall be of minimum necessary brightness consistent with worker safety. • High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.	Less than significant.
Impact 5.1-7: The Proposed Project could create new sources of glare.	III	None required.	Less than significant.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Agriculture and Forestry Resources			
Impact 5.2-1: The Proposed Project would not convert Farmland to non-agricultural use.	Class III	None required.	Less than significant.
Air Quality			
Impact 5.3-1: Construction activities would generate exhaust emissions that could contribute substantially to a violation of an air quality standard**.**	Class I	**Mitigation Measure 5.3-1:** For diesel-fueled off-road construction equipment of more than 50 horsepower, SCE shall make a good faith effort to use available construction equipment that meets the highest USEPA-certified tiered emission standards. An Exhaust Emissions Control Plan that identifies each off-road unit's certified tier specification and Best Available Control Technology (BACT) shall be submitted to the CPUC for review and approval at least 30 days prior to commencement of construction activities. Construction activities cannot commence until the plan has been approved. For all pieces of equipment that would not meet Tier 3 emission standards, the Exhaust Emissions Control Plan shall include documentation from two local heavy construction equipment rental companies that indicates that the companies do not have access to higher-tiered equipment for the given class of equipment.	Significant and unavoidable.
Impact 5.3-2: Construction activities would generate fugitive dust emissions that could contribute substantially to an existing or projected air quality violation.	Class II	**Mitigation Measure 5.3-2:** SCE shall reduce construction-related fugitive dust emissions by implementing the following VCAPCD dust control measures. SCE shall require all contractors to comply with the following requirements: 1. The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust. 2. Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities. 3. Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities: a. All trucks shall be required to cover their loads as required by California Vehicle Code Section 23114. b. All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible. 4. Graded and/or excavated inactive areas of the construction site shall be monitored by SCE's mitigation monitor at least weekly for dust stabilization. Soil stabilization	Less than significant.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Air Quality (cont.)			
Impact 5.3-2 (cont.)		methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over 4 days as long as there are no prohibitions of construction activities in the area to protect nesting birds. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust. 5. All traffic on dirt access roads shall be limited to a speed of 15 miles per hour or less. 6. During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the APCD in determining when winds are excessive. 7. Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads. 8. Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.	
Impact 5.3-3: Operation and maintenance activities would generate emissions of criteria pollutants**.**	Class III	None required.	Less than significant.
Impact 5.3-4: Construction activities would result in emissions of NO_x that would be cumulatively considerable.	Class I	Implement Mitigation Measures 5.3-1 (Construction Equipment NO_x Reductions) and 5.3-2 (Fugitive Dust Mitigation Plan).	Significant and unavoidable.
Impact 5.3-5: Construction activities would generate emissions of Toxic Air Contaminants (TACs), potentially exposing sensitive receptors to harmful pollutant concentrations.	Class III	None required**.**	Less than significant.
Impact 5.3-6: Construction activities could expose local sensitive receptors to *coccidioides immitis* spores.	Class III	None required.	Less than significant.
Impact 5.3-7: Construction and operation would not create objectionable odors.	Class III	None required.	Less than significant.
Cumulative Air Quality Impact: Construction activities would result in emissions of NO_x that would be cumulatively considerable.	Class I	Implement Mitigation Measures 5.3-1 (Construction Equipment NO_x Reductions) and 5.3-2 (Fugitive Dust Mitigation Plan).	Significant and unavoidable.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Biological Resources			
Impact 5.4-1: Construction activities could result in adverse impacts to rare plants.	Class II	**Mitigation Measure 5.4-1a:** Areas of future ground disturbance shall be surveyed for rare plants, including Plummer's mariposa lily, white rabbit tobacco, and chaparral ragwort, in accordance with CDFW's 2009 *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities,* unless otherwise agreed to by CDFW. If no rare plants are encountered, no further mitigation is required. If rare plants are found, the applicant proposed measures related to special-status plants shall be implemented for any identified CRPR Rank 1 or Rank 2 species. **Mitigation Measure 5.4-1b:** To reduce the potential for introduction or spread of invasive weeds in sensitive habitats during ground-disturbing activities, SCE shall prepare and implement a Weed Control Plan. The Weed Control Plan shall address the following: 1) A pre-construction weed inventory to be conducted by surveying all areas subject to ground-disturbing activity, including, but not limited to, pole installation sites and construction areas, tower removal sites, pulling and tensioning sites, guard structures, and areas subject to grading for new or improved access and spur roads. 2) During construction of the Project, implement measures to control the introduction and spread of noxious weeds in the Project work area. These shall include: a. washing vehicles (including wheels, undercarriages, and bumpers) at existing construction yards, commercial car washes, or similar suitable sites prior to commencing work in off-road areas; b. washing tools such as chainsaws, hand clippers, pruners, etc., prior to use in off-road areas; c. ensuring that all seeds and erosion-control materials used in off-road areas are weed-free, and any imported gravel or fill material are certified weed free by the county Agriculture Commissioners' Offices before use; and d. during Proposed Project operation and maintenance activities, clearing invasive weeds from helicopter landing areas, assembly and laydown areas, spur and access roads, staging areas, and other weed-infested areas; and disposing of weeds in appropriate off-site locations.	Less than significant.
Impact 5.4-2: Construction activities could result in adverse impacts to special-status reptiles.	Class II	**Mitigation Measure 5.4-2:** Within areas that provide potentially suitable habitat for special-status reptiles, SCE and/or its contractors shall perform preconstruction surveys within 24 hours of initial ground disturbance to identify the potential presence of western pond turtle, coast horned lizard, silvery legless lizard, two-striped garter snake, and South Coast garter snake within work areas. If any of these species are identified during surveys of the immediate construction area footprint, individuals shall be relocated from work areas by an individual who is authorized by CDFW to undertake species relocation. A suitable relocation area shall be identified and confirmed in advance with CDFW prior to preconstruction surveys.	Less than significant.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Biological Resources (cont.)			
Impact 5.4-3: Construction activities could result in adverse impacts to coastal California gnatcatcher and its habitat.	Class III	None required.	Less than significant.
Impact 5.4-4: Construction activities may impact common or protected nesting migratory birds.	Class III	None required.	Less than significant.
Impact 5.4-5: Construction could impact native grassland and sage scrub vegetation communities.	Class II	**Mitigation Measure 5.4-5.** Revegetation of native habitat areas will follow the prescriptions identified in the 2012 revegetation plan prepared by Wildscape Restoration for the Proposed Project, included as PEA Appendix F5, *Habitat Restoration and Monitoring Plan.* The revegetation plan, which was subject to CDFW review and approval, proposes the use of native revegetation for temporary impacts created by the Proposed Project. Implementation of the plan in disturbed areas will ensure that the functions and values of the disturbed habitat are restored by protecting and restoring soil conditions, restoring topography and topsoil following construction, using local native plants, and controlling aggressive non-native plant species.	Less than significant.
Impact 5.4-6: Interference with the movement of a native upland wildlife species or with established native resident or migratory wildlife corridors.	Class III	None required.	Less than significant.
Impact 5.4-7: Tree removal and pruning.	Class III	None required.	Less than significant.
Cultural Resources			
Impact 5.5-1: Construction activities and operation could cause an adverse change in the significance of a historical resource [inclusive of archaeological resources] which is either listed or eligible for listing on the National Register of Historic Places, the California Register of Historical Resources, or a local register of historic resources	Class II	**Mitigation Measure 5.5-1a:** SCE and/or its contractors shall retain a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior, 2014), to carry out all mitigation measures related to archaeological resources. **Mitigation Measure 5.5-1b:** Prior to the commencement of construction activities and in coordination with the qualified archaeologist, the construction zone shall be narrowed or otherwise altered to avoid impacts to resource P-56-001797. In coordination with the qualified archaeologist, avoidance shall be ensured by the delineation of an Environmentally Sensitive Area around the site. Protective fencing or other markers shall be erected around the Environmentally Sensitive Area prior to any ground disturbing activities; however, the Environmentally Sensitive Area shall not be identified specifically as an archaeological site, in order to protect sensitive information and to discourage unauthorized disturbance or collection of artifacts. If avoidance of site P-56-001797 is demonstrated to be infeasible, prior to the issuance of any grading or building permits, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of the resource to be impacted by construction activities. Treatment may	Less than significant.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Cultural Resources (cont.)			
Impact 5.5-1 (cont.)		consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; sample excavation; surface artifact collection; site documentation; and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the CPUC prior to the commencement of construction activities, and shall also be submitted to the South Central Coastal Information Center. Prior to the commencement of the operation and maintenance phase, the qualified archaeologist, in coordination with SCE, shall develop a long-term cultural resources management plan for archaeological site P-56-001797 in order to minimize future impacts during project operation and maintenance. **Mitigation Measure 5.5-1c:** Prior to commencement of construction activities, an archaeological monitor shall be retained by SCE and/or its contractors to monitor all ground-disturbing activities, including grading, excavation, vegetation clearance and grubbing, within 50 feet of archaeological site P-56-001797. The monitor shall be, or shall work under the supervision of, a qualified archaeologist. In the event that cultural resources are unearthed during ground-disturbing activities, the archaeological monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the find so that the find can be evaluated. Evaluation of resources shall follow the procedures set forth in Mitigation Measure 5.5-1d. **Mitigation Measure 5.5-1d:** If archaeological resources are encountered during construction, SCE and/or its contractors shall cease all activity within 100 feet of the find until the find can be evaluated by a qualified archaeologist. Per California Environmental Quality Act Guidelines Section 15126.4(b)(3), project redesign and preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with California Environmental Quality Act Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures in consultation with the CPUC, which may include data recovery or other appropriate measures. The qualified archaeologist shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. Archaeological materials recovered during any investigation shall be curated at an accredited curational facility. Work may proceed on other parts of the alignment while treatment is being carried out. The qualified archaeologist shall prepare a report documenting evaluation and/or additional treatment of the resource, which shall be submitted to the CPUC and South Central Coastal Information Center.	

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Cultural Resources (cont.)			
Impact 5.5-2: Construction activities could adversely impact a unique archaeological resource.	Class II	Implement Mitigation Measures 5.5-1c and 5.5-1d.	Less than significant.
Impact 5.5-3: Excavation could directly or indirectly destroy a unique paleontological resource.	Class II	**Mitigation Measure 5.5-3:** SCE will hire a qualified paleontologist, as defined by Society of Vertebrate Paleontology guidelines, to monitor excavation activities located in Quaternary alluvium. If the monitor or construction crews discover fossils or fossil-like material during excavation and earth-moving operations, all earthwork and other types of ground disturbance within 50 feet of the find shall stop immediately until the qualified paleontologist can assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the qualified paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the fossil. The paleontologist may also propose modifications to the stop-work radius based on the nature of the find, site geology, and activities occurring on the site. If treatment and salvage is required, recommendations will be consistent with Society of Vertebrate Paleontology guidelines (SVP, 1995) and currently accepted scientific practice. If required, treatment for fossil remains may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection, and may also include preparation of a report describing the finds. SCE and/or its contractor will be responsible for ensuring that treatment is implemented. If no report is required, SCE and/or its contractor will nonetheless ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means.	Less than significant.
Impact 5.5-4: Construction could result in damage to previously unidentified human remains.	Class III	None required.	Less than significant.
Energy Conservation			
Impact 5.6-1: Construction, operation, and maintenance would result in the consumption of energy.	Class III	None required.	Less than significant.
Criterion b: Affect local and regional energy supplies to the point that additional capacity of those energy supplies would be required.	Class IV	None required.	Beneficial impact.
Criterion e: Adversely affect existing energy resources.	Class IV	None required.	Beneficial impact.
Impact 5.6-2: Construction, operation, and maintenance would result in the use of transportation energy.	Class III	None required.	Less than significant.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Geology and Soils			
Impact 5.7-1: Ground surface rupture of an active fault could damage Proposed Project structures and pose a hazard to the public or structures.	Class III	None required.	Less than significant.
Impact 5.7-2: Strong seismic ground shaking could damage subtransmission structures.	Class III	None required.	Less than significant.
Impact 5.7-3: Seismic-related ground failure, including liquefaction, could cause damage to Proposed Project structures and, subsequently, create hazardous conditions.	Class III	None required.	Less than significant.
Impact 5.7-4: An earthquake-induced landslide could damage Proposed Project structures resulting in hazardous conditions.	Class III	None required.	Less than significant.
Impact 5.7-5: Construction, operation, and maintenance of the Proposed Project could result in erosion or the loss of topsoil.	Class III	None required.	Less than significant.
Impact 5.7-6: Some Proposed Project structures would be built on geologic units or soil that could become unstable.	Class III	None required.	Less than significant.
Impact 5.7-7: Three tubular steel poles would be installed in soils that may be expansive.	Class III	None required.	Less than significant.
Greenhouse Gas Emissions			
Impact 5.8-1: The Proposed Project would generate GHG emissions.	Class III	None required.	Less than significant.
Hazards and Hazardous Materials			
Impact 5.9-1: Construction would require the use of hazardous materials that could pose a potential hazard to the public or the environment if improperly used or inadvertently released.	Class II	**Mitigation Measure 5.9-1a:** SCE and/or its contractors shall implement construction best management practices including but not limited to the following: • Follow manufacturer's recommendations on use, storage, and disposal of chemical products used in construction; • Avoid overtopping construction equipment fuel gas tanks; • Use tarps and adsorbent pads under vehicles when refueling to contain and capture any spilled fuel; • During routine maintenance of construction equipment, properly contain and remove grease and oils; and • Properly dispose of discarded containers of fuels and other chemicals.	Less than significant.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Hazards and Hazardous Materials (cont.)			
Impact 5.9-1 (cont.)		**Mitigation Measure 5.9-1b:** SCE shall prepare a Hazardous Substance Control and Emergency Response Plan (Plan) and implement it during construction to ensure compliance with all applicable federal, state, and local laws and guidelines regarding the handling of hazardous materials. The Plan shall prescribe hazardous material handling procedures to reduce the potential for a spill during construction, or exposure of the workers or public to hazardous materials. The Plan shall also include a discussion of appropriate response actions in the event that hazardous materials are released or encountered during excavation activities. The Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities. **Mitigation Measure 5.9-1c:** SCE shall prepare and implement a Health and Safety Plan to ensure the health and safety of construction workers and the public during construction. The plan shall include information on the appropriate personal protective equipment to be used during construction. **Mitigation Measure 5.9-1d:** SCE shall ensure that oil-absorbent material, tarps, and storage drums shall be used to contain and control any minor releases. Emergency spill supplies and equipment shall be kept at the project staging area and adjacent to all areas of work, and shall be clearly marked. Detailed information for responding to accidental spills and for handling any resulting hazardous materials shall be provided in the project's Hazardous Substance Control and Emergency Response Plan (see Mitigation Measure 5.9-1b), which shall be implemented during construction. **Mitigation Measure 5.9-1e:** SCE shall ensure that the Workers Environmental Awareness Plan includes training on site-specific physical conditions to improve hazard materials release prevention and include a review of the Health and Safety Plan and the Hazardous Substance Control and Emergency Response Plan. The CPUC mitigation monitor shall attend the first program. SCE shall submit documentation to the CPUC prior to the commencement of construction activities that each worker on the project has undergone this training program.	
Impact 5.9-2: Operation and maintenance would require the use of hazardous materials that could pose a potential hazard to the public or the environment if improperly used or inadvertently released.	Class III	None required.	Less than significant.
Impact 5.9-3: Construction activities could release previously unidentified hazardous materials in the environment.	Class II	**Mitigation Measure 5.9-3:** SCE's Hazardous Substance Control and Emergency Response Plan (Mitigation Measure 5.9-1b) shall include provisions that would be implemented if any subsurface hazardous materials are encountered during construction. Provisions outlined in the plan shall include immediately stopping work in the contaminated area and contacting appropriate resource agencies, including the CPUC designated monitor, upon discovery of subsurface hazardous materials. The plan shall include the phone numbers of county and state agencies and primary, secondary,	Less than significant.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Hazards and Hazardous Materials (cont.)			
Impact 5.9-3 (cont.)		and final cleanup procedures. The Hazardous Substance Control and Emergency Response Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities.	
Impact 5.9-4: Construction activities could release hazardous materials within the vicinity of an existing school.	Class III	None required.	Less than significant.
Impact 5.9-5: Construction of the Proposed Project could interfere with an emergency response or evacuation plan.	Class III	None required.	Less than significant.
Impact 5.9-6: Construction-related activities could ignite dry vegetation and start a fire.	Class II	**Mitigation Measure 5.9-6:** SCE and/or its contractors shall prepare and implement a Health and Safety/Fire Safety Plan to ensure the health and safety of construction workers and the public. The Ventura County Fire Department (VCFD) shall be consulted during plan preparation and include health and safety/fire safety measures recommended by this agency. The plan shall list fire prevention procedures and specific emergency response and evacuation measures that would be required to be followed during emergency situations. The plan shall include, but not be limited to, the following: • SCE and/or its contractors shall have water tanks and/or water trucks sited/available in the Proposed Project area for fire protection. • All construction vehicles shall have fire suppression equipment. • All construction workers shall receive training on the proper use of fire-fighting equipment and procedures to be followed in the event of a fire. • As construction may occur simultaneously at several locations, each construction site shall be equipped with fire extinguishers and fire-fighting equipment sufficient to extinguish small fires. • Construction personnel shall be required to park vehicles away from dry vegetation. • Prior to construction, SCE shall contact and coordinate with the VCFD to determine the appropriate amounts of fire equipment to be carried on the vehicles and appropriate locations for the water tanks if water trucks are not used. SCE shall submit verification of its consultation with CalFire and the local fire departments to the CPUC. • The plan shall be submitted to CPUC staff for approval prior to commencement of construction activities and shall be distributed to all construction crew members prior to construction of the Proposed Project	Less than significant.
Impact 5.9-7: Operation of the subtransmission lines could increase the probability of a wildfire.	Class III	None required.	Less than significant.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Hydrology and Water Quality			
Impact 5.10-1: Construction, operation, and maintenance activities could result in increased erosion and sedimentation and/or pollutant (e.g., fuels and lubricants) loading to surface waters, which could increase turbidity, suspended solids, settleable solids, or otherwise degrade water quality.	Class II	**Mitigation Measure 5.10-1:** For all improved or rehabilitated access roads that would be within 300 feet of an existing surface water channel (i.e., one that has a distinct bed and banks, including irrigation ditches where no berm/levee is currently in place) and traverse a ground slope greater than two percent, the following protective measures shall be adhered to and/or installed: • All access roads shall be out-sloped; • Cross-drains (road surface drainage, e.g., waterbars, rolling dips, or channel drains) shall be installed at intervals based upon the finished road slope: road slope 5 percent or less, cross-drain spacing shall be 150 feet; road slope 6 to 15 percent, cross-drain spacing shall be 100 feet; 16 to 20 percent, cross-drain spacing shall be 75 feet; and 21 to 25 percent, cross-drain spacing shall be 50 feet; and • Energy dissipation features (e.g., rock rip-rap, rock-filled containers) shall be installed at all cross-drain outlets.	Less than significant.
Impact 5.10-2: Dewatering during construction activities could release previously contaminated groundwater to surface water bodies and/or increase sediment loading to local surface water channels through overland discharge and subsequent erosion, degrading water quality in receiving surface waters	Class II	**Mitigation Measure 5.10-2:** Regarding dewatering activities and discharges, the following measures shall be implemented as part of Proposed Project construction: • If degraded soil or groundwater is encountered during excavation (e.g., there is an obvious sheen, odor, or unnatural color to the soil or groundwater), SCE and/or its contractor shall excavate, segregate, test, and dispose of degraded soil or groundwater in accordance with state hazardous waste disposal requirements. • All dewatering activities shall, where feasible, discharge to the land surface in the vicinity of the particular installation or construction site. The discharges shall be contained, such that the water is allowed to infiltrate back into the soil, and eventually to the groundwater table, and the potential for inducing erosion and subsequent sediment delivery to nearby surface waterways is eliminated. Further, the holding tank or structure shall be protected from the introduction of pollutants including but not limited to oil or fuel contamination from nearby equipment. Concerning such activities, SCE shall apply and comply with the provisions of SWRCB Order 2003-0003-DWQ, including development and submittal of a discharge monitoring plan. • If discharging to a community sewer system is feasible or necessary, SCE shall discharge to a community sewer system that flows to a wastewater treatment plant. Prior to discharging, SCE shall inform the responsible organization or municipality and present them with a description of and plan for the anticipated discharge. SCE shall comply with any specific requirements that the responsible organization or municipality may have. • If discharging to surface waters, including to storm drains, would be necessary, SCE shall obtain and comply with the provisions of the LARWQCB Dewatering General	Less than significant.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Hydrology and Water Quality (cont.)			
Impact 5.10-2 (cont.)		Permit. SCE shall perform a reasonable analysis using a representative sample(s) of the groundwater to be discharged; this shall include analyzing the sample(s) for the constituents listed in the LARWQCB Dewatering General Permit, including TDS and nitrate. Further, the sample(s) shall be compared to the screening criteria listed in the LARWQCB Dewatering General Permit and the Basin Plan, and it shall be demonstrated that the discharge would not exceed any of the applicable water quality criteria or objectives. If necessary, SCE shall develop and submit to the LARWQCB a treatment plan and design. • SCE shall provide to the CPUC proof of compliance with LARWQCB plans and permits prior to the commencement of construction activities.	
Impact 5.10-3: Construction activities could impact local drainage patterns, or the course of a given stream, resulting in substantial on- or off-site erosion or sedimentation.	Class II	Implement Mitigation Measure 5.10-1.	Less than significant.
Land Use and, Planning			
No Impact		None required.	
Mineral Resources			
No Impact		None required.	
Noise			
Impact 5.13-1: Construction activities would generate noise levels in unincorporated Ventura County that would exceed Ventura County construction noise threshold criteria.	Class I	**Mitigation Measure 5.13-1a:** SCE and/or its contractors shall develop a Construction Noise Reduction Plan. The Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities. The Plan shall include, but not be limited to, the following measures for daytime construction activities: • Distribute to the potentially affected community within 650 feet of the Stringing Site north-northeast of Hitch Boulevard and Ventavo Road, and the residence near the Helicopter Land Zone in unincorporated Ventura County, a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. All complaints shall be logged noting date, time, complainants' name, nature of complaint, and any corrective action taken. • All construction equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof, to meet relevant noise limitations. • Maintain maximize physical separation, as far as practicable, between noise sources (construction equipment) and noise receptors. Separation may be achieved by providing enclosures for stationary items of equipment and noise barriers around	Significant and unavoidable.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Noise (cont.)			
Impact 5.13-1 (cont.)		particularly noisy areas at the construction sites, and by locating stationary equipment to minimize noise impacts on the community. • Use construction noise barriers such as paneled noise shields, barriers, or enclosures adjacent to or around noisy equipment associated with conductor stringing north-northeast of Hitch Boulevard and Ventavo Road. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. **Mitigation Measure 5.13-1b:** SCE and/or its contractors shall develop a Nighttime Noise and Nuisance Reduction Strategy plan in the event that nighttime construction activity is determined to be necessary within 1,000 feet of sensitive receptors. The plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities. The strategy shall include a set of site-specific noise attenuation measures that apply state-of-the-art noise reduction technology to ensure that nighttime construction noise levels and associated nuisances are reduced to the extent feasible. The attenuation measures may include, but not be limited to, the control strategies and methods for implementation that are listed below. If any of the following strategies are determined by SCE to not be feasible, an explanation as to why the specific strategy is not feasible shall be included in the plan. • Plan construction activities to minimize the amount of nighttime construction. • Offer temporary relocation of residents within 200 feet of nighttime construction activities. • Temporary noise barriers, such as shields and blankets, shall be installed immediately adjacent to all nighttime stationary noise sources (e.g., auger rigs, generators, compressors, etc.). • Install temporary noise barriers that block the line of sight between nighttime activities and the closest residences within 1,000 feet. • The notification requirements identified in Mitigation Measure 5.13-1a shall be extended to include residences within 1,000 feet of pending nighttime construction activities.	
Impact 5.13-2: Operation and maintenance-related noise levels would contribute to ambient noise levels.	Class III	None required	Less than significant.
Impact 5.13-3: Construction-related nighttime noise levels would substantially increase ambient noise levels in the cities of Moorpark and Thousand Oaks.	Class I	Implement Mitigation Measure 5.13-1b.	Significant and unavoidable.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE PROPOSED PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Population and Housing			
Impact 5.14-1: Construction could indirectly induce population growth.	Class III	None required.	Less than significant
Public Services			
No Impact		None required.	
Recreation			
Impact 5.16-1: Construction activities could result in adverse impacts to recreational areas.	Class III	None required.	Less than significant.
Transportation and Traffic			
Impact 5.17-1: Construction, operation, and maintenance could adversely affect traffic and transportation conditions.	Class III	None required.	Less than significant.
Impact 5.17-2: Operation and maintenance could cause traffic congestion.	Class III	None required.	Less than significant.
Impact 5.17-3: Changes in air traffic patterns and increased air traffic levels could result in safety risks.	Class III	None required.	Less than significant.
Impact 5.17-4: Traffic safety hazards could increase for vehicles, bicyclists, and pedestrians on public roadways.	Class III	None required.	Less than significant.
Impact 5.17-5: Construction activities could result in delays for emergency vehicles on roadways in the area.	Class III	None required.	Less than significant.
Impact 5.17-6: Alternative modes of transportation (public transit, bicycle or pedestrian) could be adversely affected.	Class II	Implement Mitigation Measures 5.1-2a and 5.1-52b.	Less than significant.
Utilities and Service Systems			
Impact 5.18-1: Construction, operation, and maintenance would require the use of municipal water supplies.	Class III	None required.	Less than significant.
Impact 5.18-2: Construction would require the disposal of solid wastes.	Class III	None required.	Less than significant.

[a] Impact Classes: Class I (significant unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

References – Executive Summary

California Energy Commission (CEC), 2007. Forms and Instructions for Submitting Electric Transmission-Related Data, Appendix B. Commission Report, January 2007. Publication number 700-2007-002-CMF.

Southern California Edison (SCE), 2013a. *Application of Southern California Edison Company (U 338 E) for a Permit to Construct Electrical Facilities withy Voltages Between 50 kV and 200 kV: Moorpark-Newbury 66 kV Subtransmission Line Project, Appendix F, Field Management Plan*, October 2013.

Southern California Edison (SCE), 2013b. Proponent's Environmental Assessment, Moorpark-Newbury 66 kV Subtransmission Line Project, October 28, 2013.

Southern California Edison (SCE), 2014. Data Request Response 2. DATA REQUEST SET A1310021 Moorpark-Newbury-ED-SCE-02, August 15, 2014, and Supplemental Responses submitted on October 7.

CHAPTER 1
Introduction

1.1 Purpose of This Document

Southern California Edison (SCE), in its California Public Utilities Commission (CPUC) application for the Moorpark-Newbury 66 kilovolt (kV) Subtransmission Line Project (A.13-10-021), filed on October 28, 2013, requests a Permit to Construct (PTC) a new 66 kilovolt (kV) subtransmission line and related components pursuant to CPUC General Order (GO) No. 131-D (SCE, 2013a). This Environmental Impact Report (EIR) is an informational document intended to disclose to the public and decision-makers the potential environmental impacts of the Moorpark-Newbury 66 kV Subtransmission Line Project (Proposed Project) proposed by SCE. This document assesses the direct, indirect, and cumulative environmental impacts that could occur as a result of the construction, operation, and maintenance of the Proposed Project and alternatives to the Proposed Project. The analysis in this document is based upon information submitted to the Lead Agency, the CPUC, as part of SCE's application for a permit to construct, operate, and maintain electrical facilities; SCE's Proponent's Environmental Assessment (PEA) (SCE, 2013b); SCE's responses to the CPUC's requests for additional information; and from independent studies and research conducted by and on behalf of the CPUC.

This EIR examines all of the resource areas in the California Environmental Quality Act (CEQA) Guidelines Appendix G Checklist and Appendix F, including: Aesthetics; Agriculture and Forestry Resources; Air Quality; Biological Resources; Cultural Resources; Energy Conservation; Geology and Soils; Greenhouse Gas Emissions; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Noise; Population and Housing; Public Services; Recreation; Transportation and Traffic; and Utilities and Service Systems.

1.2 Project Overview

The Proposed Project would include constructing the new Moorpark-Newbury 66 kV Subtransmission Line and upgrading the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line to address forecasted overloads on a section of the existing line and to enhance reliability and operational flexibility. The Proposed Project is located within approximately 9 miles of existing SCE right-of-way (ROW) between SCE's Moorpark Substation and Newbury Substation, in the cities of Moorpark and Thousand Oaks, and in unincorporated Ventura County. A complete description of the Proposed Project is provided in Chapter 3, *Project Description*. In summary, the Proposed Project would consist of the following components:

- Installation of approximately 500 feet of new underground 66 kV subtransmission line and a new line position in the 66 kV switchrack entirely within Moorpark Substation.

- Installation of two tubular steel pole (TSP) foundations, four TSPs, the upper portion of one TSP, and approximately 5 miles of conductor on new and existing TSPs along the new Moorpark-Newbury 66 kV Subtransmission Line route on the south and east sides of SCE's existing Moorpark-Ormond Beach 220 kV ROW.

- Installation of eight TSP foundations, 13 double-circuit TSPs, approximately 3 miles of conductor on the new Moorpark-Newbury 66 kV Subtransmission Line, and reconductoring of 3 miles of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line. Both of these subtransmission lines would be collocated on the new double-circuit TSPs. In addition, 14 existing lattice steel towers (LSTs) would be removed along this 3-mile segment.

- Installation of approximately 0.5 mile of conductor for the new Moorpark-Newbury 66 kV Subtransmission Line to be collocated with the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line on previously installed lightweight steel (LWS) poles into Newbury Substation. In addition, four TSP foundations, four TSPs, two LWS poles, and a new 66 kV subtransmission line position would be installed, and six wood poles would be removed at Newbury Substation. The existing subtransmission, distribution, and telecommunications facilities would be transferred onto the new TSPs and LWS poles.

Construction activities for the Moorpark-Newbury 66 kV Subtransmission Line project commenced in 2010. However all construction activity was halted in November 2011 due to issuance of CPUC Decision 11-11-019.[1] For the purposes of this CEQA review, the Proposed Project includes only those portions of the Moorpark-Newbury 66 kV Subtransmission Line project that have yet to be constructed. A description of past construction activities and the associated environmental effects are provided in Chapter 2, *Background*. A description of the environmental baseline, i.e., the environmental setting used to determine the impacts associated with the Proposed Project and alternatives, is provided in the introduction to Chapter 5, *Environmental Analysis*.

1.3 Proposed Project Objectives

Section 15126.6(a) of the CEQA Guidelines requires that a reasonable range of alternatives to a project be described and analyzed. The alternatives must feasibly attain most of the basic objectives of the Proposed Project. Therefore, in order to guide CPUC's development and evaluation of alternatives, SCE was asked to identify its objectives for the Proposed Project. SCE identified the objectives for the Proposed Project in its PEA (SCE, 2013b) as follows:

- Add 66 kV subtransmission line capacity to meet forecasted electrical demand while providing long-term, safe and reliable electrical service in the electric needs area (ENA).

[1] CPUC Resolution E-4243 affirmed the findings of a previously issued CPUC Resolution E-4225 that found the project was exempt from PTC requirements. However, in response to the filing of an Application for a Rehearing of Resolution E-4243, CPUC issued Decision 11-11-019 in November 2011, which ordered SCE to cease construction activity, provide certain specified information, and file a PTC Application if it wished to build the project.

- Maintain sufficient voltage at the 66 kV substation buses during normal and abnormal system conditions.
- Provide greater operational flexibility to transfer load between 66 kV subtransmission lines and substations serving the ENA.
- Maintain and improve system reliability within the ENA.
- Utilize existing facilities constructed to date for the Project to minimize environmental impacts and shorten the construction schedule.
- Utilize existing ROW and manage existing ROW in a prudent manner in expectation of possible future needs.
- Design and construct the project in conformance with SCE's applicable engineering, design, and construction standards for substation, transmission, subtransmission, and distribution system projects.

According to SCE, the Proposed Project is needed to ensure the availability of safe and reliable electric service to meet customer demand in the ENA. Specifically, the Proposed Project would address: (1) a projected voltage drop that would exceed the acceptable 5 percent limit on the 66 kV bus at Newbury Substation under abnormal system conditions; and (2) a projected overload on the Moorpark-Newbury tap of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line under a normal system configuration.

To better define the basic objectives of the Proposed Project for use in the alternatives screening process, the CEQA team conducted an independent assessment of the objectives. The basic project objectives identified by the CEQA team based on the additional analysis are:

- Add capacity to meet forecasted electrical demand while providing long-term, safe and reliable electrical service in the ENA.
- Maintain sufficient voltage in accordance with applicable requirements during normal and abnormal system conditions.
- Maintain system reliability within the ENA.
- Utilize existing ROW and manage existing ROW in a prudent manner in expectation of possible future needs.
- Maintain consistency with the Garamendi Principles passed in Senate Bill (SB) 2431 (Stats. 1988, Ch. 1457) by: (1) using existing ROW by upgrading existing transmission facilities, where technically and economically justifiable; and (2) encouraging the expansion of existing ROW when construction of new transmission lines is required, where technically and economically feasible (CEC, 2007).
- Design and construct the Proposed Project in conformance with SCE's applicable engineering, design, and construction standards for substation, transmission, subtransmission, and distribution system projects.
- Maintain consistency with CPUC GO 95.

Information on how the CEQA team developed the basic project objectives and used them in the alternatives screening process is provided in Chapter 4, *Project Alternatives*.

1.4 Agency Use of This Document

Section 15124(d) of the CEQA Guidelines requires that an EIR contain a statement briefly describing the intended uses of the EIR. The CEQA Guidelines indicate that the EIR should identify the ways in which the Lead Agency and any responsible agencies would use this document in their approval or permitting processes. The following discussion summarizes the roles of the agencies and the intended uses of the EIR.

1.4.1 CPUC

Pursuant to Article XII of the Constitution of the State of California, the CPUC is charged with the regulation of investor-owned public utilities, including SCE. The CPUC is the Lead Agency for CEQA compliance in evaluation of the SCE's Proposed Project, and has directed the preparation of this EIR. This EIR will be used by the CPUC, in conjunction with other information developed in the CPUC's formal record, to act on SCE's application for a PTC for construction, operation, and maintenance of the Proposed Project. Under CEQA requirements, the CPUC will determine the adequacy of the Final EIR and, if adequate, will certify the document as complying with CEQA. If the CPUC approves a project with significant unavoidable environmental impacts, it must state why in a Statement of Overriding Considerations, which would be included in the CPUC's decision on the application.

1.4.2 Other Agencies

Several other state agencies will rely on information in this EIR to inform them in their decision over issuance of specific permits related to project construction, operation, and/or maintenance. In addition to the CPUC, state agencies such as the California Department of Transportation (Caltrans), California Department of Fish and Wildlife (CDFW), the Regional Water Quality Control Board (RWQCB), and the Office of Historic Preservation would be involved in reviewing and/or approving the Proposed Project. On the federal level, an agency with potential reviewing and/or permitting authority includes the U.S. Fish and Wildlife Service (USFWS).

No local discretionary (e.g., use) permits are required, since the CPUC has preemptive jurisdiction over the construction, operation, and maintenance of SCE facilities in California. SCE would still have to obtain all ministerial building and encroachment permits from local jurisdictions, and the CPUC's GO 131-D requires SCE to comply with local building, design, and safety standards to the greatest degree feasible to minimize project conflicts with local conditions. The CPUC's authority does not preempt special districts, such as air quality districts, or other state agencies or the federal government. SCE would obtain permits, approvals, and licenses as needed from, and would participate in reviews and consultations as needed with, federal, state, and local agencies as shown in **Table 1-1**, *Summary of Potential Permit Requirements.*

TABLE 1-1
SUMMARY OF POTENTIAL PERMIT REQUIREMENTS

Permits and Other Requirements	Agency	Jurisdiction/Purpose
Federal		
Endangered Species Consultation (Section 7 or Section 10)	USFWS	If project has the potential to affect federally listed threatened or endangered species, consultation would be required
State		
Permit to Construct (PTC)	CPUC	Overall project approval and CEQA review
National Pollutant Discharge Elimination System Construction Stormwater Permit (NPDES)	RWQCB	Storm water discharges associated with construction activities disturbing more than 1 acre of land
Encroachment Permit	Caltrans	Construction, operation, and maintenance within, under, or over state highway (State Route 118) ROW
Endangered Species Consultation (California Endangered Species Act, California Fish and Game Code §2050 et seq., §3511, and §§1900-1913)	CDFW	Construction, operation, and maintenance that may affect a state-listed species or its habitat; incidental take authorization (if required)
Local		
Encroachment Permit	Ventura County Watershed Protection District (VCWPD)	Construction, operation, and maintenance in a VCWPD red-line stream that would alter the bed, bank or channel of the stream or is located within the floodway
Encroachment Permit (ministerial)	City of Moorpark City Thousand Oaks Ventura County	Construction, operation, and maintenance within, under, or over city road ROW
Tree Permit (ministerial)	City of Moorpark City Thousand Oaks Ventura County	Tree removal and trimming
After-hours Work Permit	City of Moorpark City of Thousand Oaks Ventura County	Construction activities outside of permitted hours
Private		
Railroad Crossing Permit	Union Pacific Railroad	Construction, operation, and maintenance within, under, or over railroad ROW

1.5 Public Review and Comment

1.5.1 Educational Outreach and Scoping

On Wednesday, March 26, 2014, the CPUC published and distributed a Notice of Preparation (NOP) to solicit input from federal, state, and local agencies on the scope and content of information to be considered in this EIR for the Proposed Project. The NOP solicited both written and verbal comments on the EIR's scope during a 30-day comment period and provided information about an educational workshop/public scoping meeting. Additionally, the NOP presented the background, purpose, description, and location of the Proposed Project and potential issues to be addressed in the EIR.

In addition to the NOP, the CPUC notified the public about the educational workshop/public scoping meeting through legal advertisements in the Ventura County Star on March 28, 2014, and April 4, 2014; and the Proposed Project website at: http://www.cpuc.ca.gov/Environment/info/esa/Moorpark_Newbury/index.html. Notifications provided basic information about the Proposed Project; the date, time, and location of the scoping meeting; and a brief explanation of the public scoping process. The NOP and newspaper legal advertisements are presented in Appendix A.

The CPUC conducted the educational workshop/public scoping meeting on Thursday, April 10, 2014, at Santa Rosa Technology Magnet School, located at 13282 Santa Rosa Road, Camarillo, California. The meeting was held from 6:30 p.m. to 8:30 p.m. Thirty-eight members of the public attended. Michael Rosauer of the CPUC; Michael Manka, Matt Fagundes, and Allison Chan of Environmental Science Associates (ESA), consultant to the CPUC also attended. Meeting attendees were provided with materials including presentation slides, written comment forms, and speaker cards. Copies of the NOP also were available upon request. During the workshop, the CPUC provided explanations concerning participants and their roles, the CPUC's decision and environmental review process, and the opportunities that existed for public participation. During the scoping meeting, the CPUC provided a Proposed Project overview, presented Proposed Project alternatives identified by SCE, solicited ideas about other possible alternatives, outlined next steps in the environmental review, and accepted public comments. The sign-in sheet from the scoping meeting and a copy of the scoping meeting presentation are provided in Appendix A.

Fifteen members of the public provided comments on the Proposed Project during the scoping meeting and the CPUC received additional comments in writing during the comment period, which closed on April 25, 2014. Appendix A of this Draft EIR contains the Scoping Report, which includes a detailed description of all verbal and written comments received, a description of comments that are not within the scope of CEQA, scoping meeting speaker cards, and copies of the written comments.

The overarching themes of the written and oral comments in the Scoping Report that fall within the purview of CEQA are as follows:

- Setting the baseline date for when environmental review should commence;
- Ensuring that alternatives are adequately addressed;
- Impacts on scenic views;
- Impacts from loss of agricultural land;
- Impacts to air quality from earth disturbance and vehicle emissions;
- Impacts to wildlife and plant life;
- Impacts to archaeological resources;
- Impacts to water quality and water runoff in the Proposed Project area;
- Impacts to the surrounding land uses;
- Noise impacts from operation of the subtransmission lines;
- Impacts to public health and safety;
- Impacts to the transportation systems; and
- Cumulative impacts.

1.5.2 Public Comment on the Draft EIR

This Draft EIR is being circulated to local, state, and federal agencies and to interested individuals who may wish to review and comment on the report. Appendix B provides a copy of the mailing list to whom the Draft EIR and /or Notice of Availability were sent. Written comments may be submitted to the CPUC during the 45-day public review period. Written and verbal comments on this Draft EIR will be accepted via regular mail, fax, and e-mail and at a noticed public meeting (either noticed in this document or under separate cover). All comments received will be addressed in a Response to Comments document, which, together with this Draft EIR, will constitute the Final EIR for the Proposed Project.

This Draft EIR identifies the environmental impacts of the Proposed Project on the existing environment, indicates how those impacts would be mitigated or avoided, and identifies and evaluates alternatives to the Proposed Project. This document is intended to provide the CPUC with the information required to exercise its jurisdictional responsibilities with respect to the Proposed Project, which would be considered at a separate noticed public meeting of the CPUC subsequent to publication of a Final EIR.

CEQA requires that a Lead Agency shall neither approve nor implement a project as proposed unless the significant environmental impacts have been reduced to an acceptable level. An acceptable level is defined as eliminating, avoiding, or substantially lessening significant environmental effects to below a level of significance. If the Lead Agency approves a project, even though significant impacts identified in the Final EIR cannot be fully mitigated, the Lead Agency must state in writing the reasons for its action. Findings of Fact and a Statement of Overriding Considerations must be included in the record of project approval and mentioned in the Notice of Determination (NOD).

1.6 Reader's Guide to This EIR

This EIR is organized as follows:

Executive Summary. Provides a summary description of the Proposed Project, the alternatives, their respective environmental impacts, and the Environmentally Superior Alternative. Also provides a summary table of the impacts and mitigation measures of the Proposed Project and alternatives.

Chapter 1, *Introduction*. Describes the purpose of this document and provides an overview of the Proposed Project including Proposed Project objectives, a brief description of public agency use of the EIR, and a discussion of the public review and comment process.

Chapter 2, *Background.* Provides an overview of past CPUC procedural activities and past construction activities associated with the Moorpark-Newbury 66 kV Subtransmission line, and a summary of environmental effects of past construction activities.

Chapter 3, *Project Description*. Provides a detailed description of the Proposed Project.

Chapter 4*, Project Alternatives*. Provides a description of the alternatives screening and evaluation process, describes the alternatives considered but eliminated from further analysis and the rationale therefore, and describes the alternatives analyzed in Chapter 5.

Chapter 5*, Environmental Analysis*. Provides a comprehensive analysis and assessment of impacts and mitigation measures for the Proposed Project and alternatives. This chapter is divided into sections for each environmental issue area (e.g., Air Quality, Biological Resources, etc.) that contain the environmental and regulatory settings, and impacts and mitigation measures for the Proposed Project and each alternative.

Chapter 6*, Comparison of Alternatives*. Provides a discussion of the relative advantages and disadvantages of the Proposed Project and the alternatives that were evaluated, and identifies the CEQA Environmentally Superior Alternative.

Chapter 7*, Cumulative Effects*. Identifies the cumulative projects considered in the analysis of cumulative impacts. Provides a discussion of the cumulative impacts of the Proposed Project in combination with reasonable foreseeable past, present and future projects.

Chapter 8*, Other CEQA Considerations*. Provides a discussion of growth-inducing impacts, significant environmental effect that cannot be avoided, and irreversible environmental changes.

Chapter 9*, Report Preparers*. Identifies the primary authors of this Draft EIR

Chapter 10*, Mitigation Monitoring, Reporting, and Compliance Plan*. Provides a discussion of the CPUC's mitigation monitoring, reporting and compliance program requirements for the project as approved by the CPUC.

Appendix A*, Scoping Report.* Includes the NOP, newspaper legal advertisements, a detailed description of all verbal and written comments received, a description of comments that are not within the scope of CEQA, scoping meeting speaker cards, copies of the written comments, the sign-in sheet from the scoping meeting, and a copy of the scoping meeting presentation.

Appendix B*, Mailing List and Certificate of Service*. Provides a copy of the mailing list to whom the Draft EIR and/or Notice of Availability were sent, and copy of the Certificate of Service.

Appendix C*, Field Management Plan*. Informs the public, the CPUC, and other interested parties of SCE's evaluation of "no-cost and low-cost" magnetic field reduction design options for the Proposed Project, and SCE's proposed plan to apply these design options.

Appendix D*, Air Quality and Greenhouse Gas Emission Estimates*. Provides air pollutant and greenhouse gas emissions estimates for the construction and operation activities associated with the Proposed Project and alternatives.

References – Introduction

California Energy Commission (CEC), 2007. Forms and Instructions for Submitting Electric Transmission-Related Data, Appendix B. Commission Report, January 2007. Publication number 700-2007-002-CMF.

Southern California Edison (SCE), 2013a. *Application of Southern California Edison Company (U 338 E) for a Permit to Construct Electrical Facilities withy Voltages Between 50 kV and 200 kV: Moorpark-Newbury 66 kV Subtransmission Line Project, Appendix F, Field Management Plan*, October 2013.

SCE, 2013b. *Proponent's Environmental Assessment for the Moorpark-Newbury 66 kV Subtransmission Line Project*, October 2013.

CHAPTER 2
Background

2.1 Introduction

As discussed in Chapter 1, *Introduction*, portions of the Southern California Edison Company (SCE) Moorpark-Newbury 66 kV Subtransmission Line were constructed in 2010 and 2011, prior to the issuance of California Public Utilities Commission (CPUC, the Commission) Decision 11-11-019, which halted all construction associated with the line in November of 2011. This chapter provides an overview of past CPUC procedural activities, past construction activities associated with the Moorpark-Newbury 66 kV Subtransmission Line, and the environmental effects of past construction activities as reported by SCE in its Proponent's Environmental Assessment (PEA) (SCE, 2013).

For clarity, the portion of the Moorpark-Newbury 66 kV Subtransmission Line that has already been constructed is referred to as "the project" or "past construction." Portions of the Moorpark-Newbury 66 kV Subtransmission Line yet to be constructed are referred to in this Environmental Impact Report (EIR) as the "Proposed Project."

2.2 CPUC Procedural Activities

On October 2, 2008, SCE filed Advice Letter 2272-E, notifying the CPUC of SCE's proposed construction of the Moorpark-Newbury 66 kV Subtransmission Line (the project). Advice Letter 2272-E explained that the project would be exempt from Permit to Construct (PTC) requirements pursuant to General Order (GO) 131-D, Section III, Subsection B.1.g. (Exemption g.). In response to protests to the Advice Letter, the CPUC issued Executive Director's Action Resolution E-4225 in February 2009, which found that the project qualified for Exemption g, and the protests were dismissed. Resolution E-4225 was then appealed. In September 2009, the CPUC held a public participation hearing where comments from the public were received. Following the hearing, Resolution E-4243 was approved by the Commission at a Business Meeting in March 2010. As approved, Resolution E-4243 affirmed the findings of the previously issued Resolution E-4225, found that the project qualified for Exemption g, and dismissed the protests.

However, in April 2010, several individuals filed an Application for a Rehearing of the Commission's approval of Resolution E-4243. Because that Application for Rehearing did not request a stay of construction, and because the CPUC did not issue a stay of construction, SCE informed the CPUC Energy Division that it planned to start construction of the project in the fall of 2010. Construction of the project commenced in October 2010, with a planned operational date of June 2012. However, in November 2011, the Commission granted the Application for a

Rehearing and all construction activity was halted due to the issuance of CPUC Decision 11-11-019. This decision ordered SCE to cease construction activity, provide certain specified information, and file a PTC Application if it wished to complete the project.

SCE filed an application (A. 13-10-021) with the CPUC in October 2013, for a PTC the remaining portions of the project that have yet to be constructed (the Proposed Project). The application included the Proponent's Environmental Assessment (PEA), which evaluates the potential environmental impacts of the Moorpark-Newbury 66 kV Subtransmission Line, both past construction (the project) and construction to be completed (the Proposed Project).

The CPUC issued a Notice of Preparation (NOP) of an EIR for the Proposed Project on March 26, 2014. Through consultation with the CPUC Staff Council, the CPUC Energy Division staff determined that SCE's past project-related activities and their associated environmental effects would be disclosed as part of the environmental baseline conditions described in this chapter and in the environmental settings provided in Sections 5.1, *Aesthetics*, through 5.18, *Utilities and Service Systems*. This is consistent with CEQA Guidelines Section 15125(a), which states:

(a) An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant…

Therefore, past project activities are not analyzed in Chapter 5, *Environmental Analysis*, of this EIR, and because the components of the project completed during the past construction activities are considered to be part of the EIR baseline and will not have continuing effects that could combine with those of the Proposed Project, these components are not identified or analyzed as a "past project" in Chapter 7, *Cumulative Effects*.

Per the requirements of CPUC Decision 11-11-019, this chapter discloses the extent of construction that has occurred, and contains SCE's evaluation of the effect of that construction on the permitting process. The effects of past project construction are provided for informational purposes only, and are not assigned impact significance determinations (e.g., less than significant impact, less than significant with mitigation).

2.3 Past Construction Activities

The Moorpark-Newbury 66 kV Subtransmission Line alignment is located generally between State Route 118 (SR 118; also known as Los Angeles Avenue) to the north, U.S. Highway 101 (U.S. 101) to the south, and west of State Route 23 (SR 23), in the City of Moorpark, City of Thousand Oaks, and in portions of unincorporated Ventura County between the two cities.

To facilitate discussion of the project, the Moorpark-Newbury 66 kV Subtransmission Line components have been subdivided into four discrete geographic segments. Portions of each segment were constructed between October 2010 and November 2011, as described below. **Figure 2-1**, *Past*

Project Area and Index Map, provides an index for Figures 2-2 through 2-4, which provide detailed illustrations of the past project components that are associated with Segments 1 through 4.

2.3.1 Segment 1

As illustrated in **Figure 2-2**, *Past Activities within Segments 1 and 2*, Segment 1 is located entirely within the fenceline of the Moorpark Substation. Segment 1 begins at the 66 kV switchrack and extends west to a location near the substation fenceline, where it turns north and continues to a riser tubular steel pole (TSP) near the northwest corner of the substation. SCE constructed the following components during past activities in Segment 1:

- Installed a single TSP pole on the substation property; and
- Constructed 700 feet of duct bank consisting of six 5-inch conduits and two underground vaults. Approximately 20 feet of the duct bank was installed in 28-inch steel casing under the SCE railroad spur located within Moorpark Substation.

2.3.2 Segment 2

Segment 2 begins at the fence line of the Moorpark Substation and terminates at pole location 28 near the City of Thousand Oaks boundary (see **Figure 2-2**, *Past Activities within Segments 1 and 2*, and **Figure 2-3**, *Past Activities within Segments 2 and 3*). Project Segment 2 is located entirely within 5 miles of SCE's existing Moorpark-Ormond Beach 220 kV ROW. SCE constructed the following components during past activities in Segment 2:

- Installed 24 TSP foundations (pole locations 2-25);
- Installed 21 complete TSPs (pole locations 2-22); and
- Installed part of one TSP (only base of pole installed at pole location 23).

2.3.3 Segment 3

Segment 3 extends approximately 3 miles from the termination of Segment 2 (north of the boundary of the City of Thousand Oaks), and then south and east to the northern terminus of Segment 4, approximately 0.3 mile west of the intersection of Conejo Center Drive and Rancho Conejo Boulevard (see Figure 2-3 and **Figure 2-4,** *Past Activities within Segments 3 and 4*). With the exception of approximately 400 feet at its northern end, all of Segment 3 is located in open space lands managed by Conejo Open Space Conservation Agency (COSCA). SCE constructed the following components during past activities in Segment 3:

- Excavated holes for three TSP foundations and then subsequently filled them with slurry (pole locations 29-31); and
- Constructed five TSP foundations (pole locations 33-37).

2.3.4 Segment 4

Segment 4 extends approximately 1 mile from the southern terminus of Segment 3 to Newbury Substation. SCE has constructed the following components in Segment 4:

- Removed 27 wood subtransmission poles (pole locations 41 through 67);
- Installed 27 light-weight steel (LWS) subtransmission poles (pole locations 41 through 67);
- Transferred the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line from wood subtransmission poles to newly-installed LWS poles;
- Installed a portion of 954 stranded aluminum conductor (SAC) for the new Moorpark-Newbury 66 kV Subtransmission Line;
- Installed a portion of the total length of fault return conductor (FRC); and
- Transferred existing distribution lines and third-party facilities to new subtransmission structures.

2.3.5 Land Disturbance

Land disturbance for the project included surface modifications to: rehabilitate existing access and spur roads including widening the existing roadbed at curves and other locations; construct one new approximately 100-foot spur road; rehabilitate and/or establish construction work areas for pole installation, pole and tower removal, and stringing locations; and install guard structures (see Figures 2-2 through 2-4).

In some locations along the access road network, more extensive rehabilitation was necessary, including: installing new, or repairing existing, drainage structures such as water bars, oversize drains, and pipe culverts to prevent road damage due to uncontrolled water flow; and repairing and stabilizing slopes to prevent future failures including installing a Hilfiker retaining wall (i.e., welded wire mesh and backing mats) adjacent to pole location 38, a soldier-pile wall between pole locations 12 and 13, and jute soil erosion control mats adjacent to pole locations 38, 39, and 40.

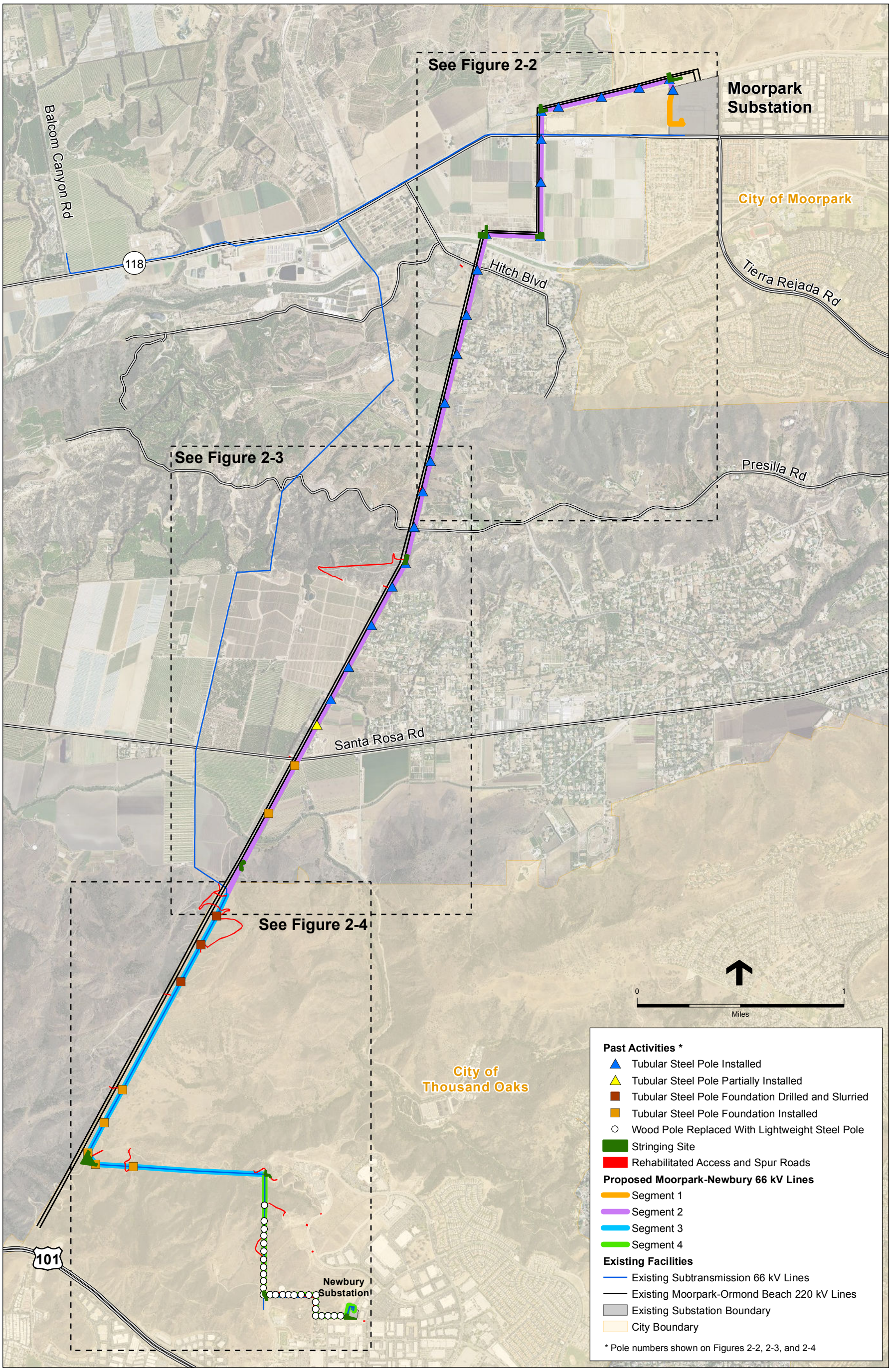
The total land disturbance that occurred during past construction activities for the project was approximately 16.68 acres, of which 11.79 acres remain disturbed (SCE, 2014). The estimated amount of land disturbance for each project component is summarized below in **Table 2-1**, *Estimated Area of Past Construction Land Disturbance*.

TABLE 2-1
ESTIMATED AREA OF PAST CONSTRUCTION LAND DISTURBANCE

Past Project Feature	Sites or Miles	Acres Disturbed During Construction	Acres Restored	Acres Currently Disturbed
Rehabilitated Existing Access/Spur Roads	21 miles	4.82	0	4.82
Installed Tubular Steel Poles	39 sites	5.92	4.60	1.32
Installed Lightweight Steel Poles	27 sites	0.44	0.29	0.15
Removed Wood Poles	27 sites	0	0	0
Stringing Sites	10 sites	5.42	0	5.42*
Guard Structures	0 sites	0	0	0
Removed Existing Lattice Steel Towers	14 sites	0.08	0	0.08*
Total		**16.68**	**4.89**	**11.79**

* Denotes that acres disturbed during past construction activities have not yet been restored; however, the disturbed acres would be restored under the Proposed Project (see Chapter 3, *Project Description*). The other currently disturbed areas associated with rehabilitated existing access/spur roads, installed TSPs, and installed LWS poles are considered to be permanently disturbed.

SOURCE: based on SCE, 2014.

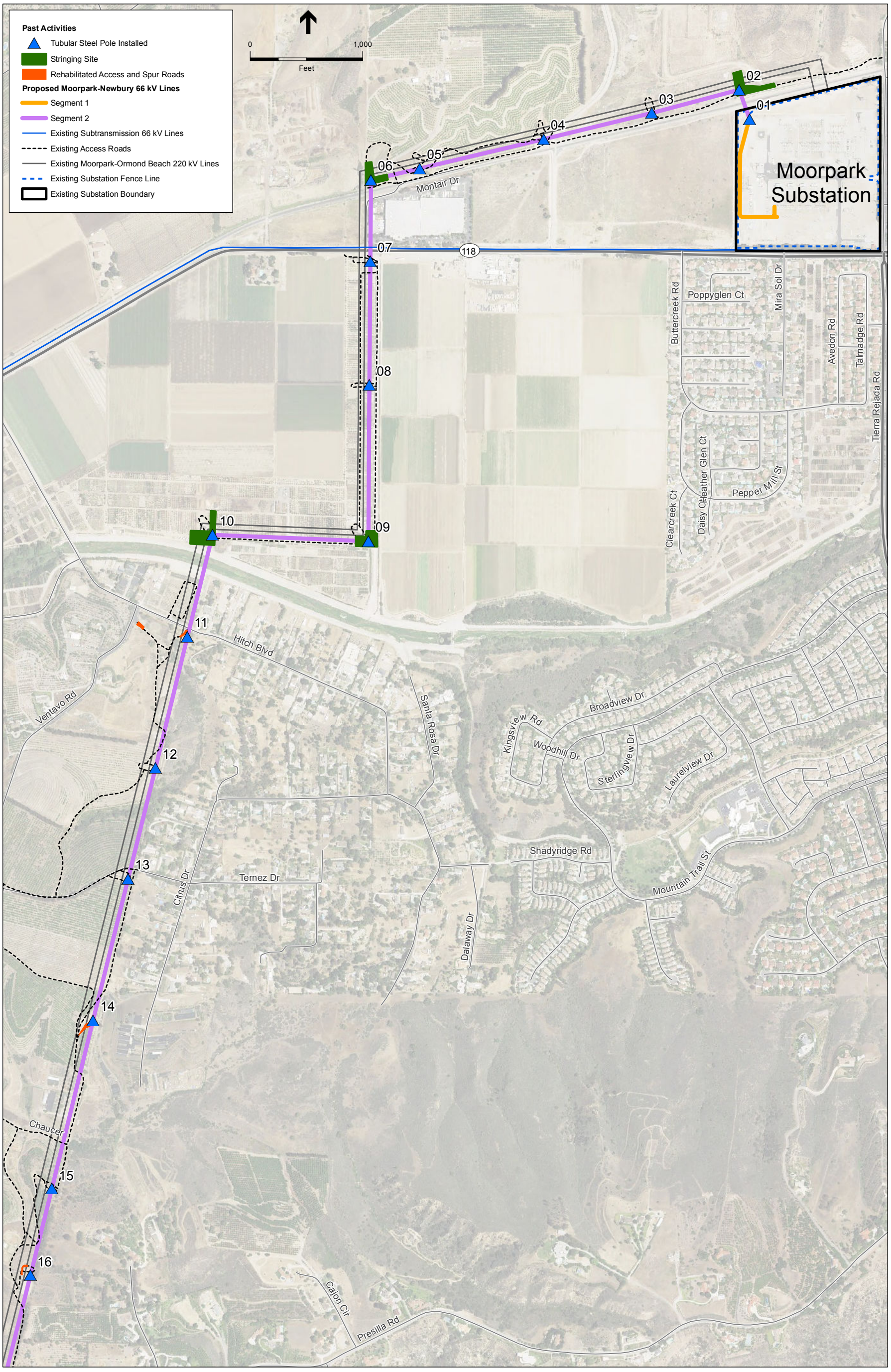


SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 2-1

Past Project Area and Index Map

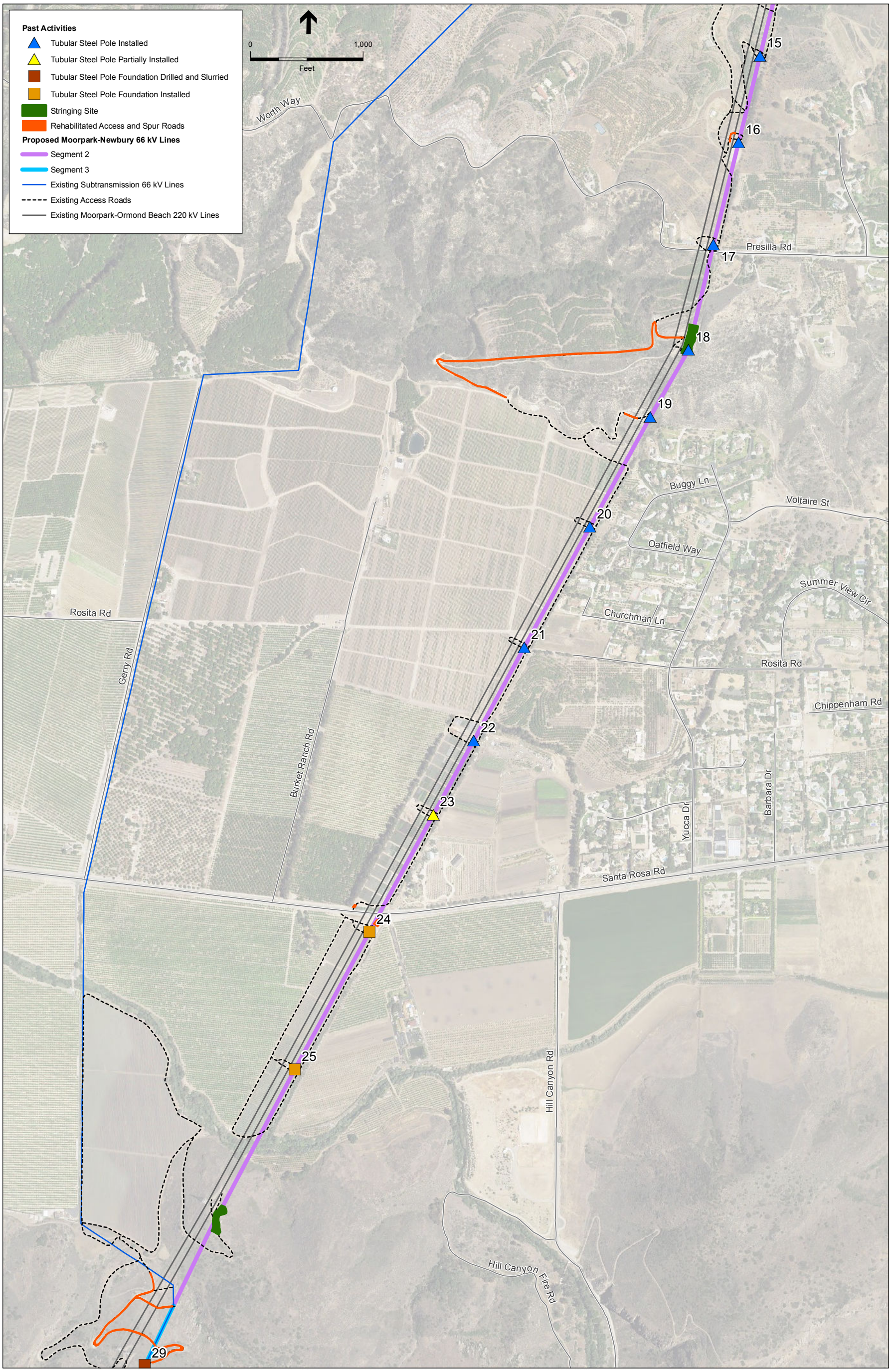


SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 2-2

Past Activities within Segments 1 and 2

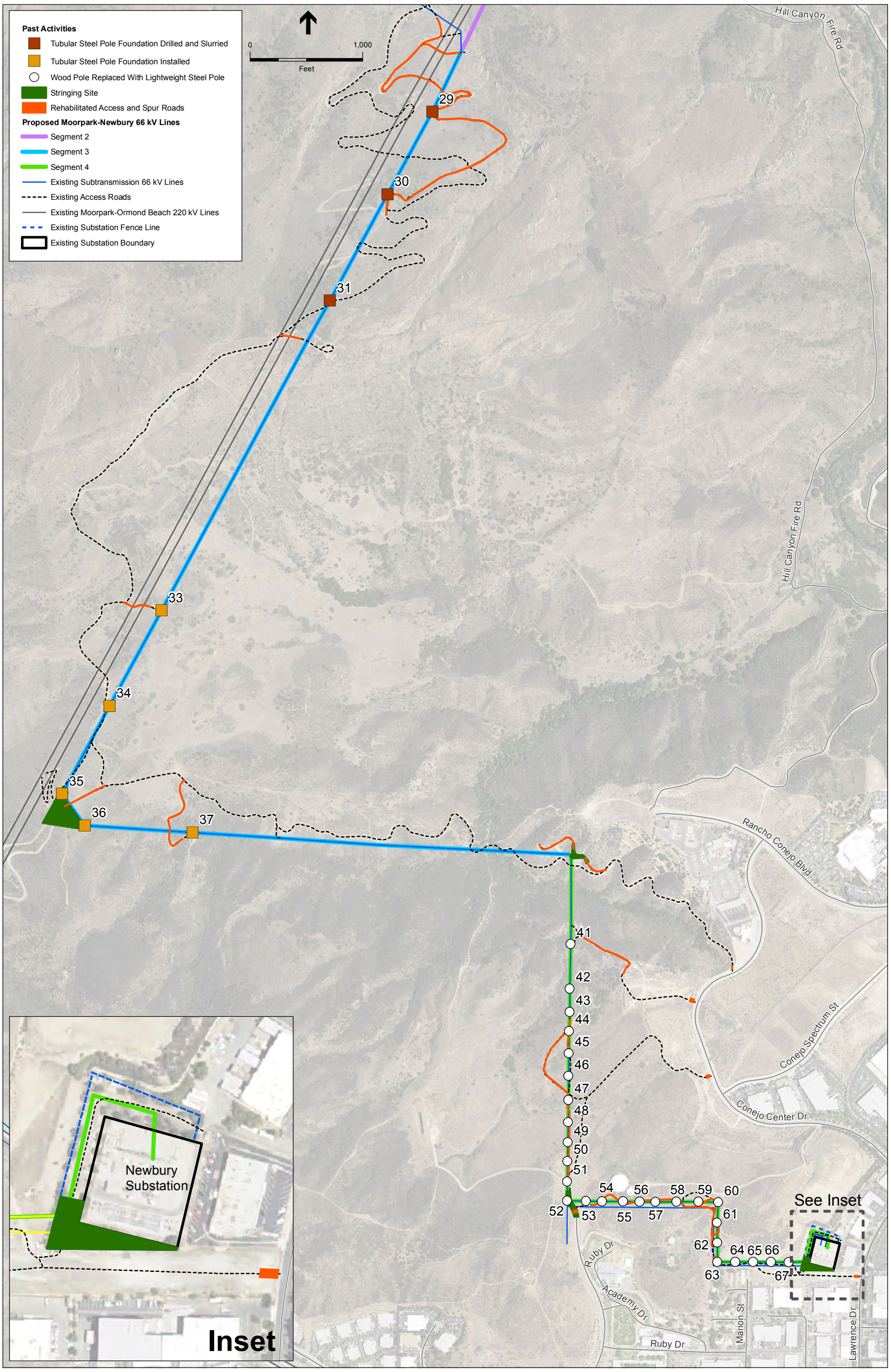


SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 2-3

Past Activities within Segments 2 and 3



SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 2-4

Past Activities within Segments 3 and 4

2.4 Effects of Past Construction Activities

The descriptions of effects of past construction activities are summarized below from SCE's PEA (SCE, 2013). It should be noted that SCE's descriptions of the effects of past construction activities do not reflect the CPUC's independent judgment; as stated in Section 2.2, *CPUC Procedural Activities*, the effects of past project construction are provided for informational purposes only, and are therefore, not assigned CEQA impact significance determinations.

2.4.1 Aesthetics

Past construction activities were not visible from designated scenic vistas because there are no defined scenic vistas in the vicinity of the project, and the project was not visible from the Lake Sherwood Scenic Resource Area. Project components are visible from some trails on COSCA-managed lands, including trails with panoramic views. Named trails within this area are located approximately 1 mile away from the project alignment, and unnamed trails near the project alignment often coincide with utility access roads. SCE maintains that the light-colored LWS poles blend into the background more readily than the darker wood poles, and become hard to distinguish at distance from the viewer.

There are no Officially Designated State Scenic Highways as defined in California Streets and Highways Code Sections 260-263 that were crossed by, or adjacent to, any components of the project. The nearest Officially Designated State Scenic Highway is a portion of State Route 33 (SR 33) located approximately 30 miles northwest of the project; no component of the project is visible from this road. Because the past construction activities were not located within view of an Officially Designated State Scenic Highway, they did not substantially affect scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within an Officially Designated State Scenic Highway.

Construction related visual impacts resulted from the presence of equipment, materials, and work crews along the route and at the substations. To varying degrees, construction activity may have been seen by local residents, motorists, and recreationists, and was likely most noticeable from the residential areas located in close proximity to the project and by users of trails on COSCA-managed lands that also serve as SCE access roads.

Past construction activities included rehabilitating access and spur roads and establishing temporary staging yards for vehicle and equipment parking and material storage. In addition, past construction activities included grading of areas that may have been noticeable to the public. Restoration of some temporary work areas and graded slopes has already occurred, thus reducing potential visual contrast with the surrounding landscape setting.

Project elements installed during past construction activities, including TSPs and LWS poles, are presented in **Table 2-2**, *Summary of Past Project-Related Visual Changes.* These TSPs and LWS poles were installed within SCE's existing ROW, which contained existing portal-type transmission towers and subtransmission, LSTs, and wood poles. TSPs along some portions of the project segments were installed adjacent to existing portal-type towers, and are either shorter than, or

TABLE 2-2
SUMMARY OF PAST PROJECT-RELATED VISUAL CHANGES

Project Component, Primary Viewers, and Representative Photographs/Visual Simulations in PEA	Past Project Construction and Visual Change
Segment 1 Motorists, Residents PEA Photograph Viewpoint 1	• Installed one new TSP riser pole and made minor modifications at Moorpark Substation. Minor visual change within the context of an established substation with numerous transmission and subtransmission towers, poles, and lines present.
Segment 2 Motorists, Residents, bicyclists PEA Photograph Viewpoints 1 through 9; Simulation Photograph Viewpoint 2 (PEA Figure 4.1-5f); Simulation Photograph Viewpoint 6 (PEA Figures 4.1-4a and 4.1-5a); Simulation Photograph Viewpoint 7 (PEA Figure 4.1-5b); Simulation Photograph Viewpoint 8 (PEA Figure 4.1-5c)	• Installed 21 new TSPs; • Installed the foundation and base portion of one TSP; and • Installed two TSP foundations. Minor visual change to the established SCE ROW that has numerous transmission and subtransmission towers, poles, and lines present.
Segment 3 Motorists, Recreationists, Residents PEA Photograph Viewpoints 8, 10 through 13; Simulation Photograph Viewpoint 8 (PEA Figure 4.1-5c); and Simulation Photograph Viewpoint 10 (PEA Figures 4.1-4c and 4.1-5e)	• Excavated holes for three TSP foundations and filled them with slurry; and • Installed five TSP foundations. Minor visual change; almost imperceptible.
Segment 4 Motorists, Residents, Recreationists PEA Photograph Viewpoints 10, and 14 through 16; Simulation Photograph Viewpoint 10 (PEA Figures 4.1-4c and 4.1-5e)	• Replaced 27 wood poles with 27 LWS poles, most of which were 5 feet taller than the removed wood poles; and • Installed new 66 kV 954 SAC conductor and a portion of the total length of new 4/0 ACSR fault return conductor (FRC). Minor incremental visual change within established SCE ROW with numerous subtransmission poles and lines present.

SOURCE: SCE, 2013.

roughly equivalent in height to, the existing portal-type transmission towers and subtransmission LSTs and wood poles. In the PEA, Figures 4.1-4a, 4.1-4b, and 4.1-4c present a set of views as seen from key observation points (KOPs) in the area where past construction activities occurred. These figures show the visual change created by past construction activities. The pre-construction view (the top picture in PEA Figures 4.1-4a, 4.1-4b, and 4.1-4c) is actually a simulation that portrays landscape conditions prior to the commencement of past construction activities.

PEA Figure 4.1-4a, a view from Yucca Drive near the entrance to the Santa Rosa Valley Estates gated residential development, represents a view experienced by motorists on this local road as well as residents in this area. The entry gate and residences are visible in the foreground. The 220 kV transmission lines supported by portal-type towers, visible on the undeveloped, scrub-covered hillside above the houses, are seen against a combination of sky and muted green landscape backdrop. Project TSPs were constructed alongside existing portal-type towers; the new TSPs, although noticeable, are grouped closely with these portal-type towers and are lower in height than the adjacent portal-type towers.

PEA Figure 4.1-4b shows a view from Santa Rosa Valley Park, a public open space area located on Hill Canyon Road. The view in PEA Figure 4.1-4b is looking northwest toward the project alignment as it crosses Santa Rosa Valley. This pre-construction view simulates that of recreational users of the park including hikers and equestrians, as well as that of a limited number of rural residents in the area. A picnic bench, rustic fence, and unpaved trail appear in the foreground and an agricultural building with a reddish colored roof located near a residence can also be seen on the left. The existing 220 kV transmission lines are supported by three pairs of light colored portal-type towers located approximately 2,000 feet away that appear against the darker green orchard backdrop. These towers are less noticeable in areas where they are seen against the muted-colors of scrub vegetation and bare soil of the Las Posas Hills. As shown in the current view photograph, a single TSP has been constructed alongside the portal-type towers. From this viewing distance, the TSP installed during past construction activities (located on the far right of the current view) represents a very minor change given the number of pre-existing utility elements seen within this existing ROW.

PEA Figure 4.1-4c portrays a simulated pre-construction view and a current view of the project as seen from a trail located within the Conejo Canyons area, approximately 1,000 feet north of the terminus of North Wendy Drive. This view is representative of those experienced by recreationists including hikers, bicyclists, and equestrians. Some trails in the Conejo Canyons area afford panoramic views toward undeveloped rugged landscape and mountains beyond. The pre-construction simulation in PEA Figure 4.1-4c was modified from a picture of the current state of the area to portray the condition of the area prior to the start of the past construction activities. In this area, the project route travels north (away from the viewpoint) for approximately 0.4 mile. In the pre-construction view, five wood poles are visible in the foreground. LSTs are barely visible on the hillside against the rough texture and muted colors of the background landscape. In the distance on the ridge and against the hillside backdrop, LSTs are visible alongside a radio tower. Comparing the pre-construction and current views in PEA Figure 4.1-4c, the replacement LWS poles are visible in the foreground. Although slightly taller, the replacement LWS poles in the foreground are similar in form to the previously-installed wood subtransmission poles, though different in color.

Past construction activity did not involve installation of permanent lighting along the route. Past activities occurred primarily during daytime hours. On occasion, construction activities were performed at night; lighting used during nighttime work was directed and focused away from potentially sensitive receptors to the extent feasible.

With respect to potential glare effects, the majority of the conductor installed in project Segment 4 as part of the past construction activities is non-specular. In addition, the TSPs and LWS poles are galvanized steel and the TSPs have a dulled finish; all poles will dull further over time minimizing light or glare that would adversely affect day or nighttime views in the area.

2.4.2 Agriculture and Forestry Resources

Past construction activities in project Segments 2 and 3, including the establishment of construction work sites for the installation of TSPs, the rehabilitation of access and spur roads, and the establishment of three stringing sites, permanently disturbed approximately 3.23 acres of

Important Farmland, including 0.21 acre of *Prime Farmland*, 0.15 acre of *Farmland of Statewide Importance*, and 2.31 acres of *Unique Farmland*. These conversions represent a loss of approximately 0.003 percent of the approximately 104,695 acres of Important Farmland identified in Ventura County. Since the conclusion of the past construction activities, all disturbed areas have been, and will remain, maintained (i.e., graded and/or kept free of vegetation) subject to agreements between SCE and landowners.

In unincorporated Ventura County, past construction activities occurred in existing ROWs on lands zoned for agricultural use. The project traverses lands zoned *Agricultural Exclusive (AE)*. Section 8105-4, *Permitted Uses in Open Space, Agricultural, Residential and Special Purpose Zones*, of the Ventura County Non-Coastal Zoning Ordinance states that overhead transmission lines are a permitted use subject to receipt of a "Planning Director-approved Conditional Use Permit." However, pursuant to GO 131-D, Section XIV.B, the project did not require a conditional use permit. Past construction activities were conducted on lands under Williamson Act contracts. Electrical transmission facilities are recognized in the California Government Code as a compatible use on Williamson Act lands. For these reasons, past project construction activities did not conflict with applicable zoning regulations regarding agricultural use, and did not conflict with any applicable Williamson Act contract.

Some past construction activities occurred on lands defined as forest lands; these activities permanently disturbed approximately 4.47 acres. However, neither the temporary nor permanent disturbances associated with past construction activities impacted the lands' ability to support 10 percent native tree cover of any species, and thus no forest lands were reclassified as non-forest lands under Public Resources Code Section 12220(g). No timberland or lands zoned Timberland Production as defined above are crossed by the project.

Past construction activities of the project did not involve any other changes in the existing environment that resulted in the conversion of Farmland to non-agricultural use or forest land to non-forest use. In addition, staging yards were sited to avoid conversion of Farmland or forest land to other uses.

2.4.3 Air Quality

During past construction activities, emissions were generated from operation of heavy equipment and support vehicles over a period of approximately 14 months. **Table 2-3** summarizes the emissions SCE has estimated to be associated with past construction activities.

TABLE 2-3
SUMMARY OF ESTIMATED CONSTRUCTION EMISSIONS FROM PAST ACTIVITIES

Source	Estimated Project Emissions (lbs/day)			
	ROG	NO_x	PM_{10}	$PM_{2.5}$
Subtransmission Line and Substation Construction Activities	78.91	726.64	52.28	38.20

SOURCE: SCE, 2013.

The Ventura County Air Pollution Control District (VCAPCD) Guidelines set forth a process for assessing a project's consistency with the Ventura County Air Quality Management Plan (AQMP); this process includes assessing a project's conformity with the applicable General Plan and comparing the population growth associated with the project with that forecasted in the AQMP. Projects that do not conform to the applicable General Plans and that result in an increase in population above that which is forecasted in the AQMP are inconsistent with the AQMP. Past construction activities involved the installation of upgraded and new electrical subtransmission infrastructure, which did not induce, directly or indirectly, population growth in the area in a manner inconsistent with any applicable General Plan.

Past activities potentially exceeded VCAPCD Guideline thresholds for levels of reactive organic gases (ROG) and nitrogen oxides (NO_x). SCE practices, including minimizing equipment idling time and maintaining equipment engines in good condition and in proper tune as per manufacturers' specifications, reduced emissions of ROG and NO_x. These measures are also listed as mitigation measures in the VCAPCD Guidelines. In addition, construction activities were delayed and or stopped between the months of March and September due to the need to avoid impacts to nesting birds; this resulted in a lengthening of the construction schedule, therefore reducing emissions during VCAPCD's identified smog season (May through October). SCE also implemented practices from the VCAPCD Model Fugitive Dust Mitigation Plan during past construction activities.

Residences are located approximately 50 to 75 feet from some project components, and the nearest school is located approximately 850 feet from the subtransmission line. Pollutant emissions were distributed over the construction period (14 months), and were not concentrated in any one area. Pollutant emissions during construction were reduced through implementation of SCE practices, including minimizing equipment idling time, maintaining equipment engines in good condition and in proper tune as per manufacturers' specifications, and employing measures to reduce fugitive dust emissions as discussed above.

Potential odor sources associated with the past construction activities included equipment exhaust during construction activities. The emission of these odors was temporary, short-term and intermittent in nature, and ceased upon completion of construction.

2.4.4 Biological Resources

2.4.4.1 Construction Impacts, Plant Species

Two listed plant species were documented to occur in the project area: Conejo dudleya and Lyon's pentachaeta. One California Rare Plant Ranks (CRPR, formerly known as the California Native Plant Society [CNPS] List) watch list species—the Catalina mariposa lily (CRPR 4.2)—has been observed in the study area.

Potential impacts to special status plant species and individuals were avoided and minimized by implementing, among others, measures contained in an August 30, 2010 letter from SCE to Ms.

Diane K. Noda, Field Supervisor, Ventura Fish and Wildlife Office (see PEA Appendix F). During past construction activities, SCE implemented the following:

- Focused surveys for Lyon's pentachaeta and Conejo dudleya were conducted no more than 30 days prior to start of construction in areas with potentially suitable habitat.
- Areas supporting Lyon's pentachaeta were flagged prior to project activities by a qualified biologist and avoided during construction. In addition, a biological monitor was present during project activities occurring within the vicinity of these resources to ensure that no sensitive species were impacted.
- Areas supporting Conejo dudleya were flagged prior to project activities by a qualified biologist and avoided during construction. In addition, a biological monitor was present during project activities occurring within the vicinity of these resources to ensure that no sensitive species were impacted.
- When digging holes for pole replacements within Lyon's pentachaeta critical habitat the upper 6 inches of topsoil were salvaged/stockpiled within Lyon's pentachaeta critical habitat in order to maintain the native seed bank. The topsoil was stored on a protective surface (such as a tarp), piled no more than three feet high, and was replaced (within two weeks) as the top layer when ground disturbing work was completed.
- Where applicable, disturbed areas within Lyon's pentachaeta habitat were restored in accordance with the California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement (SAA) requirements.
- Project Worker Environmental Awareness Training, which included:
  - Instruction to keep vehicles on existing roads and pads;
  - Instruction to avoid impacts to drainages;
  - Instruction to minimize clearing of vegetation; and
  - Information regarding protected plant species that may be found in the project area, where they have been identified during past surveys, and protection measures that may be implemented.

Past construction activities included ground disturbing activities in an area designated by U.S. Fish and Wildlife Service (USFWS) as critical habitat for Lyon's pentachaeta (Unit 2: Montclef Ridge Unit, Subunit 2A); these activities included the grading of construction work sites adjacent to structure replacement/installation locations and the rehabilitation of already existing access and spur roads. During past project related grading activities, native soils were deposited by SCE on a sloped surface adjacent to pole locations 39 and 40. This resulted in a disturbance of approximately 0.16 acre of coastal sage scrub; although this disturbance occurred within an area designated by USFWS as critical habitat for Lyon's pentachaeta, no Lyon's pentachaeta individuals were detected in the disturbed area during focused surveys, pre-construction surveys, or during construction monitoring. The 0.16 acre of disturbance was restored at the direction of CDFW, at that time the California Department of Fish and Game (CDFG).

Focused surveys for Conejo dudleya were conducted prior to ground disturbing activities. Areas supporting Conejo dudleya were flagged for avoidance and a monitor was present to ensure avoidance during construction activities.

In addition, the replacement of 21 wood subtransmission poles with 21 LWS poles permanently disturbed approximately 0.15 acre within the area designated as critical habitat. Rehabilitation of existing dirt access roads resulted in a permanent disturbance of approximately 1.35 acres within the area designated as critical habitat. The development of stringing sites temporarily disturbed approximately 0.41 acre within the area designated as critical habitat. The permanent disturbance area associated with these activities (1.5 acres) represents less than 1 percent of the 862 acres of critical habitat contained within Subunit 2A.

Catalina mariposa lily, a CNPS List 4 species, occurs along the dirt access roads in Segments 2 and 3. Catalina mariposa lily often occur in large numbers on project sites and are considered relatively common within their range. No other special status species are known to occur or were observed in the project area.

2.4.4.2 Construction Impacts, Wildlife Species

Past construction activities associated with the project resulted in minor habitat loss and disturbance relative to the availability of habitat for the following species in the region. Additionally, past construction activities resulted in temporary noise and human presence, dust, and vibrations.

Special Status Reptiles

Five special status reptiles are known to occur in the vicinity of the project: silvery legless lizard, coastal whiptail, western pond turtle, coast horned lizard, and two-striped garter snake. Potentially suitable habitat exists for each of these species except western pond turtle. None of these species were observed during biological surveys. If individuals were present but unobserved in the project area, past construction activities would have resulted in limited indirect impacts such as noise and human presence, temporary dust, and periodic vibrations. No direct or indirect impacts to these species are known to have occurred.

Special Status Birds

One Federally-listed Threatened bird species, the coastal California gnatcatcher, is known to occur along the project alignment. The following avoidance and minimization measures, among others, were implemented to avoid or minimize direct and indirect impacts to the coastal California gnatcatcher:

- During the breeding season (February 15 through August 30), a protocol preconstruction survey for the coastal California gnatcatcher was conducted by a wildlife biologist possessing a valid recovery permit from the USFWS for the coastal California gnatcatcher.
- When project activities occurred during the breeding season (February 15 through August 30), a 500-foot buffer was established around the coastal California gnatcatcher nest site, and this area was avoided until the young fledged or until the birds abandoned the nest.

- No grading of habitat occupied by nesting coastal California gnatcatchers (including a 500-foot buffer area in all direction from the nest) occurred during the breeding season (February 15 through August 30).

- Project activities that occurred within 500 feet of a mapped coastal California gnatcatcher territory were monitored by a qualified biologist who possessed a valid recovery permit for the species.

- A qualified biologist was present during clearing and replacement activities to ensure that native habitat (coastal sage scrub) removal was minimized.

Approximately 0.5 acre of potentially suitable coastal California gnatcatcher habitat along the length of the project was disturbed as a result of the project within Segment 3.

Two other Federally-Listed species, the Federally- and State-Endangered southwestern willow flycatcher (*Empidonax traillii extimus*) and least Bell's vireo are known to occur in the project area, though neither was observed during focused surveys performed in 2010 or during construction.

Three additional bird species that are considered special status, but not listed as Threatened or Endangered by state or federal resources agencies, occur along the project alignment: the coastal cactus wren, yellow warbler, and the southern California rufous-crowned sparrow. Preconstruction surveys and surveys conducted during past construction activities did not identify these species in an active construction area, and no individuals of these species were known to be harmed during past project activities.

The project area provides potentially suitable foraging habitat for the golden eagle, a State Fully Protected Species; however, no golden eagles were observed prior to or during past construction activities. At the time of past construction activities, SCE's standard avian protection practices were employed. SCE's standard practices were developing based on available knowledge from available data and available equipment at that time. Past construction activities could have discouraged golden eagles from foraging in the immediate vicinity of an active construction area. This disruption in foraging would have been localized and temporary in nature.

Limited potentially suitable habitat for the burrowing owl occurs in the extreme northern portion of the project alignment, near Moorpark Substation. No individuals were observed during field surveys in 2010 and 2011 or by biological monitors during construction.

The project area provides potentially suitable foraging and nesting habitat for raptors, such as red-tailed hawks. Nesting bird surveys, including raptors, were conducted prior to project activities to avoid impacts to active nests. Past construction activities could have discouraged raptors from foraging in the immediate vicinity of an active construction area. This disruption in foraging would have been localized and temporary in nature.

Special Status Mammals

The San Diego desert woodrat has the potential to occur in the project area. This species is not listed or proposed to be listed as Threatened or Endangered, but is a CDFW Species of Concern.

This species was not observed during pre-construction field surveys or by biological monitors during construction in 2010 or 2011. If individuals were present but unobserved in the project area, past construction activities would have resulted in limited indirect impacts such as noise and human presence, temporary dust, and periodic vibrations. No direct or indirect impacts to this species are known to have occurred.

The project area may include foraging habitat for two bat species: western mastiff bat and pallid bat. However, neither species was observed during pre-construction field surveys or by biological monitors during construction in 2010 or 2011. Past construction activities did not affect the overall availability of prey in the project area for bats. Construction activities in the general area resulted in limited indirect impacts such as noise and human presence, periodic night lighting, temporary dust, and temporary vibrations.

2.4.4.3 Effects on Riparian Habitat or other Sensitive Natural Communities

Native Grasslands and Sage Scrub

Native grassland and sage scrub communities are found in project Segments 3 and 4. Impacts to sensitive plant communities were realized as a result of the ground disturbing activities. Temporary impacts to sensitive plant communities occurred in locations where native vegetation was removed but that was subsequently restored following the cessation of past construction activities; this includes the locations adjacent to pole locations 38, 39, and 40 where certain soils were deposited by SCE on sloped surfaces. Permanent impacts, as a result of construction, also occurred where sensitive plant communities were located on or immediately adjacent to access and spur roads that were rehabilitated and where permanent equipment pads were established.

Impacts to sensitive plant communities were avoided and minimized by incorporating recommendations provided in biological survey reports prepared for the project, among others. Impacts were avoided or minimized by:

- Conducting clearance surveys no more than 30 days prior to the start of construction in a particular area to identify potential plant and animal species that could have been impacted by construction activities. Clearance surveys included a field survey by a qualified botanist and were limited to areas that could have been directly impacted by construction activities.
- Implementing the Project Worker Environmental Awareness Training, which included:
  - Instruction to keep vehicles on existing roads and pads;
  - Instruction to avoid impacts to drainages;
  - Instruction to minimize clearing of vegetation; and
  - Information regarding protected plant species that may be found in the project area, where they have been identified during past surveys, and protection measures that may be implemented.
- A qualified biologist was present during clearing and restoration activities to ensure that native habitat (coastal sage scrub) removal was minimized.

Following the cessation of the past construction activities, the majority of disturbed areas were reclaimed, allowing for and encouraging the re-establishment of sensitive plant communities in these areas.

Riparian Habitat

Only limited project activities occurred within riparian habitat. To facilitate equipment access and protect the integrity of the access road, one existing culvert underneath an existing access road in project Segment 3 was cleaned out; during this activity, a few small willow trees were removed or trimmed.

2.4.4.4 Effects on Federally Protected Wetlands

No federally-protected wetlands were identified along the project alignment as defined by Section 404 of the Clean Water Act.

2.4.4.5 Interference with Fish Movement or Wildlife Nursery Sites

Past construction activities were temporary and affected small, geographically-dispersed areas at any one time; there is no evidence that past construction activities interfered substantially with the movement of any wildlife species, although past construction activities may have interfered with the movement of individual animals. No past construction activities occurred in any location that could have interfered with the movement of a fish species. Past construction activities did not substantially alter the physical characteristics of the project area, and did not introduce any new permanent uses that could interfere with an established wildlife corridor. There are no known native wildlife nursery sites in the project area.

2.4.4.6 Conflicts with Local Policies or Ordinances

Protected trees were trimmed and removed during the past construction activities. SCE retained a certified arborist to conduct surveys to identify trees that met regulatory protection standards. For their trimming and removal, SCE obtained two ministerial tree permits from the County of Ventura: 1) for the removal of two Eucalyptus trees and the trimming of 18 Eucalyptus trees in Segment 2, and 2) for the removal of 35 cottonwood trees in Segment 2.

2.4.4.7 Conflicts with Conservation Plans

No Habitat Conservation Plans or Natural Community Conservation Plans exist along the project alignment. Project Segments 3 and 4 traverse lands managed by COSCA; the management of these lands is guided by the Conejo Canyons Open Space Management Plan. Although the Management Plan is neither a defined Habitat Conservation Plan nor a defined Natural Community Conservation Plan, the Management Plan was prepared by COSCA in order to inventory the resources in the plan area, identify challenges and opportunities in managing these resources, and suggest actions to be taken for the long-term management and environmental sustainability of the land and resources within the Conejo Canyons. SCE has an easement through

this area that allows construction and maintenance activities associated with the existing utility corridor. The Management Plan acknowledges the presence of the utility corridor. SCE, as the easement-holder, coordinated with COSCA regarding past construction activities.

2.4.5 Cultural Resources

Regarding whether the project caused a substantial adverse change in the significance of a historical resource as defined in Section 15064.5, records searches and pedestrian survey results indicate that no historical resources are located within the area of potential impact.

Three archaeological resources were identified in locations where they could have potentially been impacted by past construction activities; one of these (P56-001797) was determined to be a potentially important archaeological resource that could meet the criteria for California Register of Historical Resources (CRHR) eligibility. Prior to the start of past construction activities, P56-001797 was physically isolated within an SCE-established Environmentally Sensitive Area (ESA) in which construction activities were prohibited, and from which construction workers were excluded. In addition to the protection provided by avoidance, the following were implemented:

- An archaeological monitor was on site during ground disturbing activity in the vicinity of the three archaeological resources.
- A preconstruction meeting to orient construction crews to sensitive areas was held prior to any ground disturbing activity within the vicinity of the three sites.
- Had cultural material that may have yielded sensitive information been uncovered during construction, then all work within a 15-meter radius of the discovery would have been halted until the find could have been evaluated by a qualified archaeologist. Had human remains been unearthed during excavation, no further disturbance would have occurred until the County Coroner had made the necessary findings as to origin and distribution pursuant to Public Resources Code Section 5097.98. However, no cultural material or human remains were uncovered during past construction activities.
- If construction was halted because of an archaeological discovery, no work would have begun within that area until written notification from a qualified archaeologist was given to the project manager or construction foreman.

In addition, SCE implemented its Project Worker Environmental Awareness Plan (WEAP), which included a discussion of cultural resources and established procedures for protecting known resources and treating previously unidentified cultural resources. No unanticipated discoveries were found during past construction activities.

The project area does not contain any known cemeteries or burial features. The potential for encountering Native American human remains exists throughout California, and it is not always possible to predict where Native American human remains might occur outside of formal cemeteries. However, no human remains were identified or disturbed during the past construction activities.

Portions of the project area are underlain by geological formations that have low to high sensitivity for paleontological resources. The past ground-disturbing construction activities included blading/grading existing access and spur roads, blading and grading construction work sites adjacent to existing structures, and drilling widely-spaced holes for TSP foundations. No paleontological resources were encountered during the past construction activities.

2.4.6 Energy Conservation

SCE did not include a description or analysis of effects of the project on energy conservation in its PEA (SCE, 2013).

2.4.7 Geology and Soils

The project crosses, and has the potential to be directly impacted by, surface rupture of the Simi-Santa Rosa Alquist-Priolo Earthquake Fault Zone (A-P Zone). Portions of the project were constructed within the A-P Zone. However, the subtransmission infrastructure was placed at locations on opposite sides of the mapped fault traces. There is a risk of very strong seismic ground shaking to occur in the project area due to nearby active fault zones. Even though the project is located in an area susceptible to earthquake forces, the subtransmission line poles installed for the project are not used for human occupancy and are designed consistent with CPUC GO 95, *Rules for Overhead Line Construction*, to withstand wind, temperature, and wire tension loads. Accounting for these factors results in a design that would be adequate to withstand expected seismic loading.

Liquefaction hazards are considered to be low in all areas of the project where past construction activities have occurred, with the exception of project Segments 1 and 2 within Little Simi Valley and project Segment 2 within Santa Rosa Valley, which are located within mapped Liquefaction Hazard Zones. SCE designed project components to minimize the potential for impacts associated with liquefaction. TSP structures located in potential liquefaction zones in the Little Simi and Santa Rosa valleys were designed with large diameter, relatively deep, single (mono) foundations. Settlements induced by dynamic (earthquake) forces are anticipated to be uniform for mono foundations, and therefore use of these foundations reduces the potential for differential settlements and other adverse effects including loss of functionality, or risk of injury or loss of life.

The potential for seismically-induced landslide hazards are a low to moderate in portions of the project area due to steep slopes (see PEA Figure 4.6-2). SCE designed and sited project components as follows to minimize the potential effects from landslides: project TSPs are not located on mapped landslides that could be subject to renewed movements during an earthquake event. Further, the hillside areas of the project are rated primarily with low susceptibility for earthquake-induced landslides instability, with a few areas with steep natural slopes rated with moderate susceptibility (see PEA Figure 4.6-2). Due to siting and design constraints, as well as access and constructability factors, TSPs are generally not located on steep slopes, and/or have deep foundations that reduce the effects of earthquake induced slope instability.

Past construction activities that were associated with the project (e.g., creating construction work sites, rehabilitating access roads, and establishing stringing sites and laydown areas) resulted in disturbance of approximately 16.68 acres of soils. Erosion control measures included in the project construction Stormwater Pollution Prevention Plan (SWPPP) were implemented to minimize soil erosion. In addition, approximately 324 cubic yards of soil were transported off-site.

Project components that were previously constructed are located in areas subject to precipitation- or seismically-induced slope instability (see PEA Figure 4.6-2). Site-specific subsurface borings and laboratory analysis were conducted prior to construction. Portions of project Segments 1 and 2 within Little Simi Valley, and project Segment 2 within Santa Rosa Valley along Coyote Creek, are mapped as liquefaction hazard zones and are anticipated to have a similar risk of lateral spreading where slopes are present.

Potential impacts associated with the risk of landslides, liquefaction, and lateral spreading were reduced through the design and siting of project components as follows:

- Project TSPs are not located on mapped landslides that could be subject to renewed movements during an earthquake event. Further, the hillside areas of the project are rated primarily with low susceptibility to earthquake induced landslide instability, with a few areas with steep natural slopes rated with moderate susceptibility (see PEA Figure 4.6-2). Due to siting and design constraints, as well as access and constructability factors, TSPs are generally not located on steep slopes, and/or have deep foundations, which reduce the effects of earthquake induced slope instability.

- Project TSPs located in potential liquefaction zones in the Little Simi and Santa Rosa valleys have been designed with large diameter, relatively deep, single (mono) foundations. Settlements induced by dynamic (earthquake) forces are anticipated to be uniform for mono foundations, and therefore use of these foundations reduces the potential for differential settlements and other adverse effects including loss of functionality, or risk of injury or loss of life.

- Lateral spreading is a secondary effect of seismically-induced liquefaction where blocks of ground move down slopes or toward an open face such as a stream bank or manufactured channel. Project TSPs sited in areas with liquefaction potential are not sited in proximity to open faces, and therefore the potential for damage due to lateral spreading is not high.

No areas of subsidence or soil collapse are known within the project area, nor are any expected to occur based on review of published soil data. SCE designed and located project components to minimize the potential effects from expansive soils. Because the effects of expansive soils are most realized at shallow depths, the deep foundations of TSPs and the burial depths of LWS poles resulted in these poles not being susceptible to the effects associated with expansive soils.

2.4.8 Greenhouse Gas Emissions

Past construction activities resulted in short-term construction emissions of greenhouse gas (GHG) emissions during the October 2010, through November 2011 period. Past activities generated exhaust emissions from vehicular traffic, as well as from construction equipment and machinery. Short-term GHG emissions from the project were estimated to be approximately

635 metric tons of carbon dioxide equivalent ($MTCO_2e$) over the October 2010 through November 2011 period. GHG emissions from past construction activities, amortized over 30 years, would be approximately 21 $MTCO_2e$ per year. According to the PEA, past construction activities also did not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

2.4.9 Hazards and Hazardous Materials

No acutely hazardous materials (as defined in Title 22 California Code of Regulations (CCR) §66260.10) were used or stored on location during past construction activities. Hazardous materials that were used during past construction activities included gasoline, diesel fuel, oil, solvents, and lubricants associated with construction equipment and other vehicles and construction activities. These materials were transported, used, and disposed of in accordance with applicable laws, regulations, and SCE protocols designed to protect the environment, workers, and the public. No contaminated soil was encountered during excavation or other ground disturbing activities.

Reasonably foreseeable upset and accident conditions during past construction activities included minor spills or drips. Best management practices (BMPs) were implemented during past construction activities to reduce the potential for or exposure to accidental spills or fires involving the use of hazardous materials. The effects of such incidents were minimized by thoroughly cleaning up minor spills as soon as they occurred. A construction SWPPP was developed and implemented to ensure quick response to minor spills. The SWPPP identified the locations for storage of hazardous materials during past construction activities, as well as protective measures, notifications, and cleanup requirements for an accidental spill or other potential release of hazardous materials. Further, the SWPPP included good housekeeping BMPs and waste management BMPs that were implemented and inspected on a regular basis, as required by the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order 2009-0009-DWQ, as amended by Order 2010-0014-DWQ, to ensure BMP effectiveness at the project sites during past construction activities.

There are three schools located within 0.25 mile of components of the project. Hazardous materials used during past construction of the project consisted of limited quantities of low-toxicity materials including gasoline, diesel fuel, oil, solvents, and lubricants associated with the construction equipment and vehicles and construction activities. In addition, substation related work completed as part of the project necessitated the removal of equipment including relays and capacitors that contained hazardous materials. All hazardous materials were stored, handled, and used in accordance with applicable regulations. No acutely hazardous materials (as defined in Title 22 CCR §66260.10) were used or stored on location during past construction activities.

Based on field conditions and SCE personnel's knowledge of historical and current use of lands in the vicinity of the project sites, there were no indications that hazardous waste had been generated or stored at or along any component of the project. No past construction activities were located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

No past construction activities were located within an area covered under an airport land use plan. There were no public airports or public use airports within 2 miles of any past construction activity, nor were there private airstrips within the vicinity of any past construction activities.

Past construction activities did not considerably impact traffic circulation or increase demands on existing emergency response services, and did not impact emergency access in the area. SCE coordinated with local authorities regarding appropriate procedures to ensure that access road blockages were temporary and intermittent and that the roads remained available for use in case of emergency. There was no blockage of public roadways during past construction.

Vegetation at construction areas and along access roads were cleared and maintained to avoid the potential for ignition. During past construction activities, SCE implemented fire prevention protocols. When Red Flag Warnings were issued by the National Weather Service, SCE implemented measures to address smoking and fire rules, storage and parking areas, use of gasoline-powered tools, use of spark arresters on construction equipment, road closures, use of a fire guard, fire suppression tools, fire suppression equipment, and training requirements.

2.4.10 Hydrology and Water Quality

2.4.10.1 Violation of Water Quality Standards

Past construction activities included ground-disturbing activities in erosion-prone areas that could have increased soil erosion rates, with the potential to result in exceedances of water quality standards and impacts to beneficial uses in adjacent water bodies. Soil disturbance adjacent to streams within the project vicinity could have had adverse effects on water quality, including in Calleguas Creek, which does not currently meet water quality standards for turbidity. Rehabilitation of access roads and the development of spur roads and equipment pad/turnaround areas in erosion-prone areas could have resulted in soil loss and sedimentation.

However, to minimize soil erosion and resulting impacts on water quality, SCE complied with state stormwater regulations. Past construction activities were completed under the State Water Control Resources Board, National Pollution Discharge Elimination System Construction General Permit (Construction General Permit, SWRCB Order 2009-0009-DWQ as amended by 2010-0014-DWQ) and an approved SWPPP (WDID# 4 56C359579). BMPs identified in the SWPPP were utilized to address sediment discharge and erosion control to meet water quality standards.

Past construction activities did not involve discharges of domestic sewage. Temporary sanitary facilities were provided during past construction activities; these facilities were serviced by a licensed contractor and all wastes disposed of according to applicable regulations. With the implementation of BMPs from the SWPPPs required under the Construction General Permit, the project did not cause a violation of water quality standards.

2.4.10.2 Groundwater Depletion

Past construction activities did not involve direct extraction of groundwater. SCE used water during construction for dust control and other purposes including site rehabilitation and revegetation-related work. This water was obtained from providers who use both surface and groundwater. Given the small volume of water used during past activities (which totaled less than 1 acre-foot, including water used for rehabilitation and revegetation activities), the project did not substantially deplete groundwater supplies in the area.

Past construction activities did not substantially interfere with groundwater recharge. The past activities did not alter the course of a stream or river in any way that affected groundwater recharge. The TSP concrete foundations are impervious; each foundation is approximately 6 to 8 feet in diameter. A total of 28 TSP foundations were constructed along the length of the project during past construction activities; these foundations are widely spaced, and as such, the presence of these foundations has not resulted in an increase in impervious surface that could substantially affect groundwater recharge. New spur roads were constructed from pervious local soils, and did not substantially interfere with groundwater recharge. Therefore, past construction activities did not cause a net deficit in aquifer volume or a lowering of the local groundwater table level.

2.4.10.3 Alteration of Drainage Patterns

Past construction activities included upgrading and replacing deteriorated drainage facilities during the rehabilitation of access roads. These drainage facilities, and facilities that did not require upgrades or replacement, were used during past activities. In addition, new spur roads were constructed in a manner that did not substantially alter existing drainage patterns. The development of construction pads resulted in minor localized changes in runoff volumes and velocities. However, in compliance with state stormwater regulations, SCE developed and implemented a SWPPP and erosion and sediment control plans with BMPs to minimize soil erosion.

During past project related grading activities, certain soils were inadvertently deposited by SCE on slopes below pole locations 38, 39, and 40. These activities altered the existing drainage patterns on and in the immediate vicinity of the slopes; however, substantial erosion or siltation did not occur either on- or off-site, and the areas were rehabilitated at the direction of CDFW. In addition, SCE obtained permits and complied with Ventura County flood control requirements for encroachments on ROWs of channels regulated by the Ventura County Watershed Protection District and for new structures in floodplains.

The project incorporated design features to control runoff rates, which minimized the chances of flooding receiving waters or causing sedimentation that would reduce their capacity. Through drainage design and implementation of stormwater BMPs during and after construction as required by existing regulatory programs, the project minimized the potential for flooding area streams and rivers.

2.4.10.4 Site Runoff and Other Water Quality Degradation

Site runoff was addressed through stormwater BMPs implemented in compliance with the Construction General Permit. This included the installation and/or upgrading of stormwater drainage systems along the project alignment. The capacity of these systems was designed to accommodate the maximum expected stormwater drainage from the project's sites. As such, the project did not create or contribute to runoff water which exceeded the capacity of existing or planned stormwater drainage systems or provided substantial additional sources of polluted runoff. During past construction activities, no additional sources of potential water degradation were identified beyond those previously discussed.

2.4.10.5 Flooding

Construction of the subtransmission line occurred within a Federal Emergency Management Agency (FEMA) designated 100-year flood hazard zone associated with Calleguas Creek (Conejo Creek, and Arroyo Los Posas and Arroyo Simi), but not within the active channel. However, the subtransmission structures did not alter drainage patterns and do not have a large cross section that would substantially impede flood flows. During construction, no dams or other temporary structures that could impede or redirect flow were required.

Project Segment 1 and the northern portion of project Segment 2 are located in the Wood Ranch Reservoir (Bard Lake) failure inundation path. However, these project segments are located at the far end of the inundation path, and past construction work did not expose workers to a substantial risk of loss, injury, or death involving flooding from the failure of the reservoir's dam. Construction work adjacent to tributaries to Calleguas Creek was conducted in identified flood zones. However, past construction activities were conducted during the dry season to the extent feasible, and were halted on account of weather when necessary, and thus did not expose people or structures to a risk of loss, injury, or death involving flooding.

2.4.10.6 Exposure to Inundation by Seiche, Tsunami, or Mudflow

According to the California Emergency Management Agency, all components of the project were located outside of a mapped tsunami hazard zone. The nearest water body in which a seiche could occur is the Wood Ranch Reservoir (Bard Lake) in Simi Valley. The past construction activities occurred more than 4 miles from the reservoir, and thus was not susceptible to a seiche. Therefore, due to the location of past construction activities, and because these activities did not involve construction of residences or other land uses involving human occupancy, there was no risk of loss, injury, or death from tsunamis or seiches.

The project was routed through areas that may have been susceptible to mudflows. However, past construction activities did not involve the development of residences or other structures or facilities designed for human occupation. Additionally, construction work was halted on account of weather when necessary, and no mudflows in the project area occurred during past construction activities.

2.4.11 Land Use and Planning

Past construction activities occurred within substation boundaries or within existing utility ROWs that have been in existence for several decades. Areas designated and zoned for residential uses are located to the south of the Moorpark Substation, to the east of portions of project Segment 2, and in the vicinity of Newbury Substation; no construction occurred on these lands. Past construction activities at any given site were of short duration and intermittent. The entire past construction period lasted only 14 months. Construction of the subtransmission structures, installation of overhead conductor, and substation modifications did not physically divide an established community.

Past construction activities occurred within existing SCE utility ROWs within the City of Moorpark, City of Thousand Oaks, and unincorporated Ventura County. Electric transmission lines are recognized as exempt from the zoning ordinance in the City of Thousand Oaks, are a permitted use in the City of Moorpark, and are a permitted use in Open Space, Agricultural, and Residential zones in Ventura County. Therefore, past construction activities were consistent with these plans and associated policies. For COSCA-managed lands, the Conejo Canyons Open Space Management Plan identifies the current location and easements for SCE's transmission lines. Because the past construction activities associated with the project took place within existing ROWs within the Management Plan area, the past construction activities were consistent with the Management Plan.

There are no adopted Habitat Conservation Plans or Natural Community Conservation Plans applicable to the lands crossed by the project. Project Segments 3 and 4 traverse lands managed by COSCA; the management of these lands are guided by the Management Plan. Although the Management Plan is neither a defined Habitat Conservation Plan nor a defined Natural Community Conservation Plan, the Management Plan was prepared by COSCA in order to inventory the resources in the plan area, identify challenges and opportunities in managing these resources, and suggest actions to be taken for the long-term management and environmental sustainability of the land and resources within the Conejo Canyons area. SCE has an easement through this area that allows construction and maintenance activities associated with the existing utility corridor. The Management Plan acknowledges the presence of the utility corridor. SCE, as the easement-holder, coordinated with COSCA regarding past construction activities.

2.4.12 Mineral Resources

As indicated by previous oil and gas exploration in the vicinity of the project area, these resources may be present in the subsurface of the project area. Portions of the project area are categorized as MRZ-3, for the presence of mineral resources and aggregate of undetermined significance. Past ground-disturbing construction activities involved drilling holes for TSP foundations and the rehabilitation of some existing access roads and laydown areas, which resulted in relocation of soils and rock within the project area. Project activities were not located in an area known to contain or that is mined for rare or unique rocks or minerals. The past construction activities did not permanently preclude access or change the availability of any mineral resources. The past

construction activities did not result in the loss of availability of a known mineral resource that is locally important or of value to the region and the residents of the state.

2.4.13 Noise

Past construction activities included, among other activities, boring to obtain soil and rock cores, removing existing wood poles and replacing them with LWS poles, installing TSPs and foundations, installing conductor, relocating existing distribution and telecommunications facilities, and associated site preparation activities (e.g., road grading and work pad construction). Noise-generating construction activities generally occurred during daytime hours, Monday through Saturday. Some limited night work occurred in the vicinity of Newbury Substation, and SCE obtained a permit for this work from the City of Thousand Oaks. Construction noise A-weighted decibel (dBA) equivalent sound level (L_{eq}) contour distances SCE estimated for these activities are summarized in **Table 2-4** below.

TABLE 2-4
POLE REMOVAL AND INSTALLATION NOISE CONTOUR DISTANCES

Construction Operations	Contour Distance (feet)				
	75 dBA[1] L_{eq}[2]	70 dBA L_{eq}	65 dBA L_{eq}	60 dBA L_{eq}	55 dBA L_{eq}
Conductor Removal	183	327	572	975	1,610
Wood Pole Removal	171	307	537	916	1,517
TSP[3] Foundation Installation	173	309	539	924	1,534
TSP Assembly	134	243	428	739	1,240
TSP Erection	132	239	420	726	1,219
Conductor Installation	204	364	630	1,067	1,757

NOTES:

1 The A-weighted decibel (dBA) scale corresponds to the sensitivity range for human hearing. Noise levels capable of being heard by humans are measured in dBA.

2 Leq: The equivalent sound level, or the time-integrated continuous sound level, that represents the same sound energy as the varying sound levels, logarithmically averaged over a specified monitoring period.

3 The installation of TSPs generated more noise than installation of LWS poles or removal of LSTs. Therefore, because these noise contours are based on TSP installation related noise, they represent a conservative estimate of noise generated during past activities, including LWS pole installation.

SOURCE: SCE, 2013.

Construction activities conducted Monday through Saturday between the daytime hours of 7:00 a.m. and 7:00 p.m. are exempted from the noise limits established in the City of Moorpark municipal code. The City of Thousand Oaks municipal code limits construction to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. The completed construction operations generally occurred within this time period, and work conducted outside this time period was covered under a permit from the City of Thousand Oaks.

The County of Ventura limits temporary construction noise to 75 dBA L_{eq} for durations of up to 3 days. Under the construction scenarios analyzed in the PEA, the modeled 75 dBA L_{eq} noise contour distances range from 132 to 204 feet. No residential structures in Ventura County were

located within the 75 dBA L_{eq} noise contour. In addition, the construction activities at each location were conducted and staggered to ensure that the noise generated during construction did not exceed the significance thresholds or durations identified by the County of Ventura noise regulations set forth in the County's Construction Noise Threshold Criteria and Control Plan.

A helicopter was used to install a single LWS pole in project Segment 4 in the City of Thousand Oaks. This activity occurred during the day, lasted less than 4 hours, and took place in an area characterized as open space. The type of light-duty helicopter used to install the LWS pole generated a sound exposure level (SEL) of 80 dBA to 85 dBA for an overflight at 1,000 feet elevation, which corresponds to an hourly L_{eq} of 44 dBA to 49 dBA at a 1,000-foot distance.

The existing ambient 1-hour L_{eq} noise levels in the project area were measured to range from 42 dBA to 74 dBA, and for purposes of this analysis it is assumed that the ambient noise levels at the time past activities commenced were consistent with these noise levels. The noise associated with past construction activities exceeded these ambient noise levels in the vicinity of project activities, and thus resulted in a temporary increase in ambient noise levels. Construction activities at any given site were short term, and thus did not represent a periodic increase in ambient noise levels. Due to the short-term and temporary nature of construction activities, and the limited number of noise sensitive receptors in the area, the increase in ambient noise levels was not substantial.

Past construction activities did not occur in an area within an airport land use plan or within 2 miles of a public airport or public use airport. Therefore, past construction activities did not expose workers to excessive noise levels attributable to a public airport or public use airport. There are no private airstrips located in the vicinity of the project. Therefore, the project did not expose workers to excessive noise levels attributable to a private airstrip.

2.4.14 Population and Housing

The number of workers that were employed to complete the past activities did not directly or indirectly induce population growth in the area. Construction activities were short-term and temporary, and occurred for approximately 14 months. During peak construction times, SCE had approximately 70 workers per day on-site. The labor demands of the past activities were met by existing SCE employees and contractors. The small number of positions required during the short construction phase did not directly or indirectly induce any population growth in the area.

The past activities did not indirectly induce an increase in population. The electrical subtransmission infrastructure that was constructed is needed to increase the reliability of existing service. It is not designed to facilitate or induce additional electrical consumption or population growth. In addition, the past activities did not include construction of any new infrastructure such as publicly-accessible roads that could induce population growth.

The past activities did not displace any existing housing or people. Project infrastructure was constructed within existing public ROWs, both across public ROWs and within existing SCE ROWs. There were no residences or housing located within these ROWs. Although residences

were and are located near portions of the project, the past activities did not displace housing or people, and did not necessitate the relocation or construction of replacement housing elsewhere.

2.4.15 Public Services

The past activities did not directly or indirectly induce any population growth, and thus did not create a population growth-triggered increase for police or fire services; an increase in school enrollment; or an increase in the use of libraries, hospitals, parks, or other public facilities that resulted in a lowering of acceptable service ratios, response times, or other performance objectives. Because service ratios, response times, and performance objectives were not reduced to an unacceptable level, past construction activities did not necessitate the provision of new or physically altered governmental facilities, or a need for new or physically altered governmental facilities to maintain acceptable service.

Past activities were undertaken in a high fire hazard area. Construction activities were conducted according to SCE health and safety protocols and applicable laws and regulations designed to protect workers and the public. Compliance with these protocols ensured that construction activities were conducted in a manner that minimized the risk of igniting fires, including wildland fires.

During the past activities, existing access roads (which may also function as fire roads in open space areas) were used by construction equipment to access construction sites. To minimize surface disturbances, in some instances drill pads or equipment pad/turnaround areas encompassed access roads that were within SCE's existing ROWs. Vehicle movements along, and use of, access roads were communicated to and coordinated with the appropriate agencies when applicable. Equipment placed on equipment pad/turnaround areas and drill pads were situated or attended to facilitate adequate emergency vehicle access should the need have arisen.

2.4.16 Recreation

During construction, local parks may have been used by workers during their lunch or break periods, although the short duration of construction activities and the small number of construction workers would not have resulted in a substantial increase in the use of existing parks or recreational facilities, nor would this infrequent, intermittent use have resulted in a substantial physical deterioration of the facilities.

Numerous multi-use trails and fire roads are located within the Conejo Canyons area. Some of these multi-use trails and fire roads were used by SCE as access roads and spur roads to access its subtransmission structures. Past project activities required the blading and/or grading, where appropriate, of the existing multi-use trails and fire roads used by SCE to access its facilities. During the construction period, recreational use of some segments of these trails was temporarily interrupted to ensure the safety of the public and workers. These interruptions were localized and of a short duration, lasting only as long as the construction activity, and warning signs were placed on the access roads to alert users to the presence of construction equipment. There are many other trails throughout the Conejo Canyons area that were not affected by past project

activities. These trails could have been utilized by any trail users displaced from trails affected by past construction activities. Neither the grading and/or blading of the trails utilized during past construction activities, nor the temporarily-increased use of these trails during construction, resulted in substantial or accelerated physical deterioration of the trails.

The limited increase in the use of parks and recreational facilities by workers during past construction activities did not result in either a substantial increase in the use of existing parks or recreational facilities or the occurrence or acceleration of substantial physical deterioration to existing parks and recreational facilities. Even while recreational use of existing access and spur roads was temporarily disrupted during construction, other trails were available in close proximity within the Conejo Canyons area.

Within the Conejo Canyons Open Space Management Plan area, the project includes facilities (access roads) that are also used for recreational purposes. These access and spur roads are identified as multi-purpose trails in the Management Plan. During past project activities, these existing dirt access roads were graded and bladed as needed to ensure the safe movement of construction equipment along the SCE ROW. In some cases, short spur roads were rehabilitated or reestablished to provide adequate access to structure installation or removal sites. These spur roads are short and dead-end at the subtransmission structures, and add no or little additional recreational value to the existing multipurpose trail system.

2.4.17 Transportation and Traffic

2.4.17.1 Performance Standards

Past construction activities included the movement of light, medium, and heavy-duty vehicles (including oversize vehicles such as cranes) over U.S. 101, SR 23, and SR 118, and local roads maintained by the cities of Moorpark and Thousand Oaks, and Ventura County. Some project related vehicles and equipment traveled from permanent and temporary staging yards to work sites in the morning, and returned to their points of departure in the evening. Some project equipment was left on-site overnight. Past construction activities generated a maximum of approximately 180 daily vehicle trips during construction of the project. The actual number of daily vehicle trips may have been lower depending on the daily construction schedule. The 180 daily vehicle trips was inclusive of each worker making two daily personal vehicle trips (one trip in the morning from home to a staging yards, and one trip in the reverse in the evening, for a total of 140 roundtrips per day). Due to the working hours of utility crews, the majority of these personal vehicle trips occurred outside the morning and evening peak hours.

The temporary increase in project-related traffic during construction accounted for a minimal increase over average daily volumes along the roadways and at the intersections in the vicinity of the project. Past construction activities did not require any permanent or temporary lane closures of public roads. Project related vehicle movements occurred at a number of intersections within the City of Moorpark and the City of Thousand Oaks. The small number of project-related vehicle movements, and the timing of those movements, did not result in the lowering of the existing level of service (LOS) at any intersection.

Based on the number of daily vehicle trips generated during past construction activities, and the fact that no permanent or temporary lane closures on public roads were required, the project did not create any inconsistency or conflict with an applicable plan, ordinance, or policy that establishes measures of effectiveness.

2.4.17.2 Level of Service Standards

The Ventura County Transportation Commission (VCTC) has adopted in the Ventura County Congestion Management Plan (CMP) a minimum LOS standard of E for the CMP road network. The majority of roads and intersections that were used by project-related traffic during past construction activities operated at an LOS of D or better. The exception is U.S. 101, which operated at an LOS of E or F. None of the roads or intersections used during past construction activities were identified in the CMP as experiencing unusual growth in average annual daily traffic volumes.

With the exception of U.S. 101, highways on which project related traffic traveled operated at or above the minimum acceptable level of service. Traffic counts on these roads indicate that there was excess capacity available for use that did not cause the LOS of the roadways to drop below the acceptable level. Because past construction activities of the project generated only 180 additional vehicle movements per day, it did not exceed the thresholds of significance for Ventura County.

Given the then-acceptable LOS of roads and intersections, and the small number of trips that were generated during past construction activities, the project did not alter the existing LOS or interfere with the performance standards of any applicable CMP or other standards established by the applicable jurisdiction.

2.4.17.3 Air Traffic Patterns

All past construction activities were conducted in an existing utility ROW where subtransmission and transmission structures were present. While portions of the ROW are located in an area covered by the departure procedures for Camarillo Airport, no subtransmission or other structures were constructed in a location that would require a change in the departure procedures, and thus no change in air traffic patterns occurred as a result of past construction activities.

Construction activities resulted in a short-term increase in air traffic levels, as a helicopter was used to install a single LWS pole in project Segment 4. This flight was coordinated with and subject to the regulations of the appropriate federal authorities.

2.4.17.4 Design Features or Incompatible Uses

No incompatible uses or construction or alteration of any public roads were included as part of past construction activities.

2.4.17.5 Emergency Access

Past project construction activities did not result in inadequate emergency access. All construction at substations was conducted within the fencelines of the facilities. Activities and construction vehicles did not reduce the dimensions of access roads or driveways, or block roads or driveways, and thus did not impair emergency access to substations.

Past subtransmission-related construction work did not require any permanent or temporary closure of travel lanes on public roadways, private roads, or driveways. Past construction work did involve the movement of oversize vehicles that could have affected emergency vehicle access to and through the project area. Oversize vehicle permits were obtained as applicable.

Vehicle movements along, and use of, access roads were communicated to and coordinated with the appropriate agencies. Equipment placed on equipment pad/turnaround areas and drill pads were situated to facilitate adequate emergency vehicle access.

2.4.17.6 Bicycle or Pedestrian Facilities

Past project construction activities did not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. While the past construction activities occurred over a 14-month period, construction activities in any given location occurred over a short time period. Past construction work was conducted on SCE-owned property and within existing ROWs. SCE obtained encroachment permits from the local jurisdictions and Caltrans, as appropriate, for construction activities that encroached upon any public ROW or easement.

2.4.18 Utilities and Services Systems

During the past activities, small volumes of domestic wastewater was generated during construction activity at the substations. The additional volume of wastewater generated at the substations during past activities was minimal and did not cause an exceedance of wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board (RWQCB).

For subtransmission-related work along the project segments, portable toilets were provided on-site for workers during the construction phase according to California Occupational Safety and Health Act requirements. The portable toilets were serviced by a licensed contractor who disposed of the waste off-site in accordance with applicable requirements.

Past construction activities of the project did not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. This is because only small volumes of wastewater were generated by the project during past construction activities, and because only small volumes of water were required for dust control during the construction period.

Past construction activities did not require the development of large-scale impermeable surfaces that increased the amount of stormwater discharge from the site that required construction of new off-site stormwater drainage facilities or expansion of existing facilities. The only impermeable

surfaces installed as part of the past construction activities were 33 TSP foundations installed over an approximately 6-linear-mile area, and new concrete footings and conduit installed as part of the substation work. These new impermeable surfaces encompass an area of less than 1,700 square feet. Because the project disturbed a surface area greater than 1 acre, SCE obtained coverage under the Construction General Permit. As part of compliance with the Construction General Permit, SCE prepared a SWPPP and implemented BMPs. Some of these BMPs served the purpose of regulating the amount of stormwater discharged at past construction work sites.

SCE used water to support construction activities, including for minimizing emissions of fugitive dust and mixing concrete. Depending on the work location, the water used during the past construction activities was obtained from Ventura County Waterworks District No. 1, the California American Water Company, or the Camrosa Water District. Due to the small volume of water that was used, and the short duration over which water was consumed, the past construction activities did not require new or expanded entitlements.

Past project activities generated only small incremental volumes of domestic wastewater from the substations and from portable toilets that were provided on-site for workers during the construction phase. The portable toilets were serviced by a licensed contractor who retrieved wastewater and disposed of it off-site in accordance with applicable requirements.

Small volumes of construction related waste and removed infrastructure components required disposal during past project construction activities. This waste included wood power poles replaced during construction, short lengths of conductor or wire, excavated materials, and miscellaneous construction materials (e.g., pallets, strapping, packaging). SCE recycled all materials where feasible. Materials that could not be recycled were disposed of in accordance with all applicable federal, state, and local statutes and regulations. All treated wood poles removed for the project were returned to the staging yard, and either reused by SCE, returned to the manufacturer, disposed of in a Class I hazardous waste landfill, or disposed of in the lined portion of a RWQCB-certified municipal landfill. The existing capacity available at the landfills that served the project were adequate to accommodate the small volume of waste generated during the past construction activities. All solid waste generated by the project during past activities was handled in accordance with all applicable federal, state, and local statutes and regulations.

References – Background

Southern California Edison (SCE), 2013. *Proponent's Environmental Assessment for the Moorpark-Newbury 66 kV Subtransmission Line Project*, October 2013.

SCE, 2014. Data Request Response 2. DATA REQUEST SET A1310021 Moorpark-Newbury-ED-SCE-02, August 15, 2014, and Supplemental Responses submitted on October 7.

CHAPTER 3
Project Description

3.1 Introduction

Southern California Edison (SCE), in its California Public Utilities Commission (CPUC) application (A.13-10-021), filed on October 28, 2013 requests a Permit to Construct (PTC) a new 66 kilovolt (kV) subtransmission line and related distribution components in the cities of Moorpark and Thousand Oaks, and in unincorporated Ventura County. SCE's application for a PTC includes the Proponent's Environmental Assessment (PEA), which SCE prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure. The following description of the Proposed Project is based on information provided in the PEA (SCE, 2013a) relative to SCE's proposed future activities to complete the Moorpark-Newbury 66 kilovolt (kV) Subtransmission Line Project as well as supplemental information provided by SCE (SCE, 2014). For a description of past construction activities for the Moorpark-Newbury 66 kV Subtransmission line that occurred in 2010 and 2011, refer to Chapter 2, *Background*.

3.2 Project Location

The Proposed Project is located in the cities of Moorpark and Thousand Oaks, and in unincorporated Ventura County (see **Figure 3-1**, *Proposed Project Segments and Existing Substations*). The Proposed Project is located in approximately 9 miles of existing SCE right-of-way (ROW) between SCE's Moorpark Substation and Newbury Substation. As shown in Figure 3-1 and for the purposes of this environmental review, the Proposed Project has been divided into four discrete geographic segments. The Moorpark Substation (part of Segment 1) is located at the intersection of Gabbert Road and Los Angeles Avenue in the City of Moorpark. From the Moorpark Substation, the subtransmission line would traverse varied land uses, including: industrial, light industrial, and agricultural uses in the City of Moorpark (Segments 1 and 2); predominantly agricultural and residential uses in unincorporated Ventura County (Segment 2); Conejo Open Space Conservation Agency (COSCA) lands in the Conejo Canyons (Segment 3); and additional open space to the termination of the subtransmission line at the Newbury Substation in the City of Thousand Oaks, located on Lawrence Drive near Corporate Center Drive (Segment 4).

3.3 Existing System

The Electrical Needs Area (ENA) defined by SCE for the Proposed Project is shown in **Figure 3-2**, *Electrical Needs Area,* and is presently served by two substations within the Moorpark 66 kV Subtransmission System (the Moorpark System): the Newbury Substation and Pharmacy Substation.

The Moorpark System is comprised of the 220/66/16 kV Moorpark Substation, approximately eleven 66/16 kV distribution substations, and various 66 kV customer-dedicated substations and poletop substations. **Figure 3-3**, *Existing and Proposed Moorpark 66 kV Subtransmission System,* provides schematic diagrams of the existing and proposed Moorpark System, not including customer-dedicated substations not associated with the project. The Moorpark System also includes various 66 kV subtransmission lines, and 16 kV, 4 kV and 2.4 kV distribution circuits. The Moorpark System serves customers located in the communities of western Simi Valley, Moorpark, Thousand Oaks, Newbury Park, Westlake Village, Agoura, Agoura Hills, Oak Park, Hidden Hills, Topanga Canyon, Calabasas, Malibu, and portions of eastern unincorporated Ventura County as well as portions of western unincorporated Los Angeles County.

The existing system infrastructure includes portions of the Moorpark-Newbury line that were previously constructed, but not completed or operational. See Chapter 2, *Background,* for details regarding the previously constructed portions of the Moorpark-Newbury line.

3.4 Overview of the Proposed Project

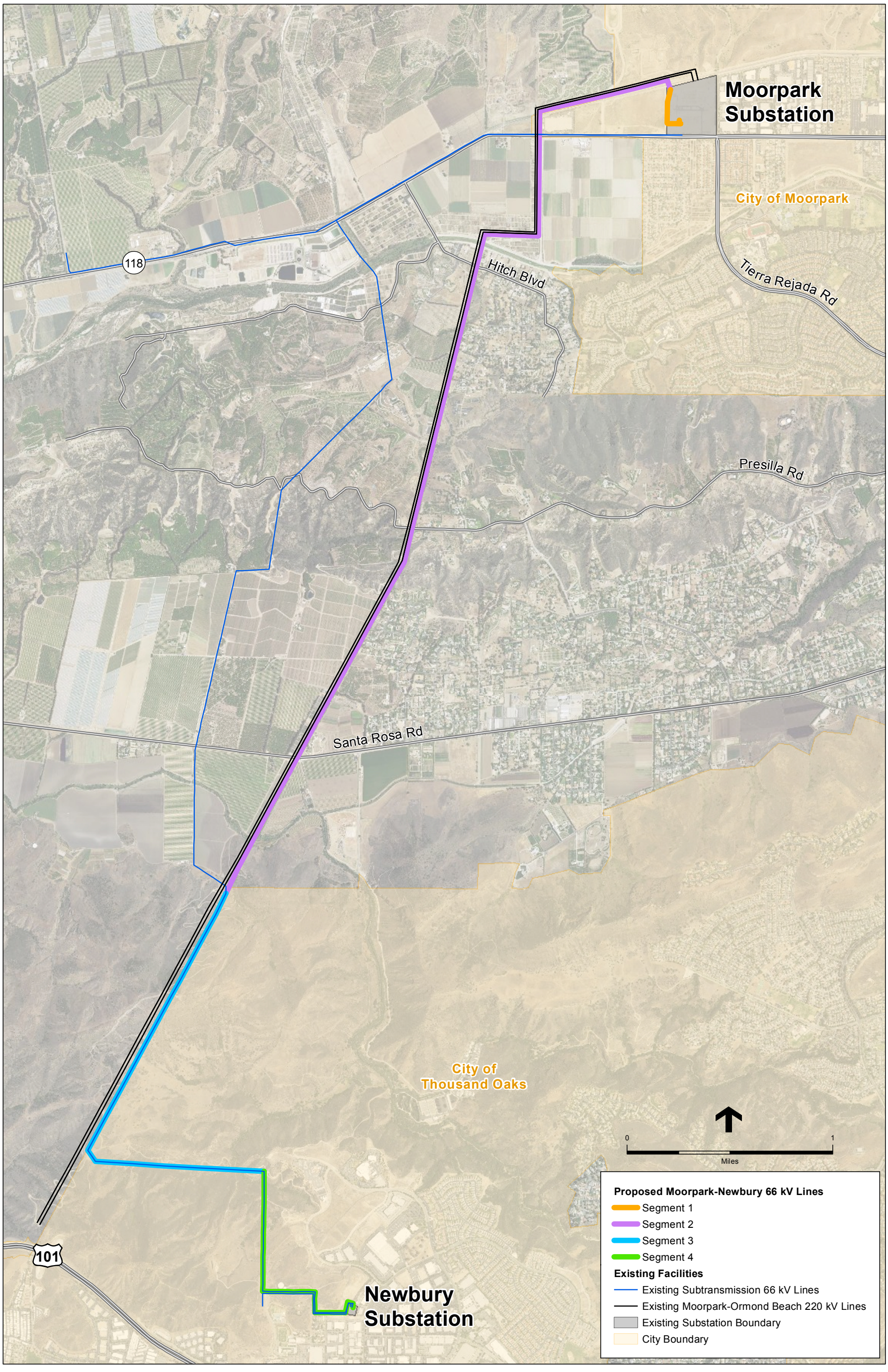
The Proposed Project consists of constructing 66 kV subtransmission line elements within existing SCE ROWs to connect the Moorpark and Newbury substations. Following is an overview of the Proposed Project components:

- **Segment 1:** Installation of approximately 500 feet of new underground 66 kV subtransmission line and a new line position in the 66 kV switchrack entirely within Moorpark Substation.

- **Segment 2:** Installation of two tubular steel pole (TSP) foundations, four TSPs, the upper portion of one TSP, and approximately 5 miles of conductor on new and existing TSPs along the new Moorpark-Newbury 66 kV Subtransmission Line on the south and east sides of SCE's existing Moorpark-Ormond Beach 220 kV ROW.

- **Segment 3:** Installation of eight TSP foundations, 13 double-circuit TSPs, and approximately 2 miles of conductor on the new Moorpark-Newbury 66 kV Subtransmission Line; reconductoring 2 miles of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line. Both of these subtransmission lines would be collocated on the new double-circuit TSPs. Removal of 14 existing lattice steel towers (LSTs) would also occur along this 2-mile segment.

- **Segment 4:** Installation of approximately 1 mile of conductor for the new Moorpark-Newbury 66 kV Subtransmission Line to be collocated with the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line on previously installed lightweight steel (LWS)



SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 3-1

Proposed Project Segments and Existing Substations

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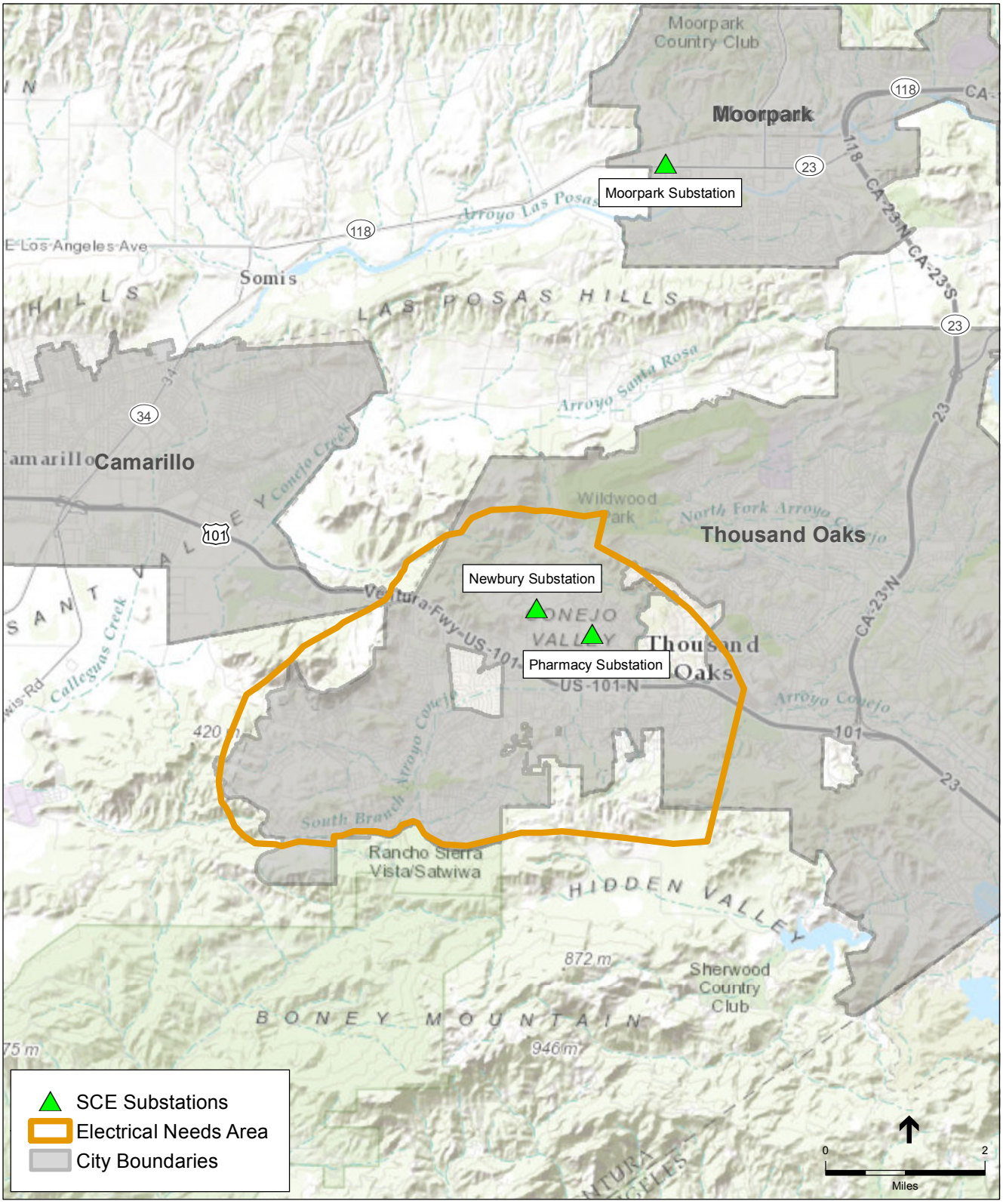
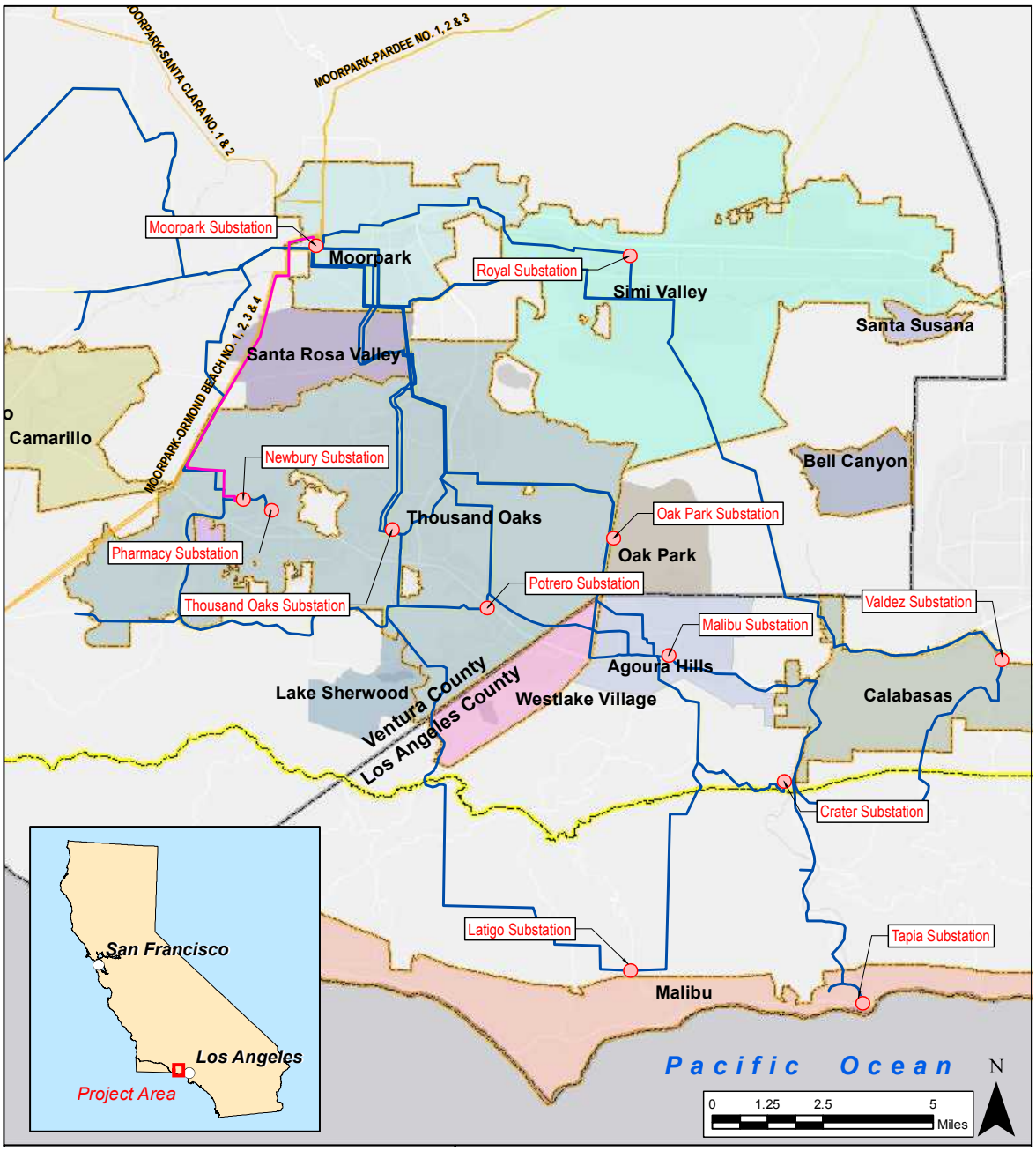


SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 3-2
Electrical Needs Area



Substations

Proposed Moorpark-Newbury 66 kV Subtransmission Line

Existing Moorpark Subtransmission System

Coastal Zone Boundary

County Lines

City Boundaries

SOURCE: SCE, 2013

Figure 3-3
Existing and Proposed Moorpark
66 kV Subtransmission System

poles into Newbury Substation. In addition, four TSP foundations, four TSPs, two LWS poles, and a new 66 kV subtransmission line position would be installed, and six wood poles would be removed at Newbury Substation. The existing subtransmission, distribution, and telecommunications facilities would be transferred onto the new TSPs and LWS poles.

The four Proposed Project segments illustrated on Figure 3-1 are described in more detail below. **Figure 3-4**, *Proposed Project Area and Index Map*, provides an index for Figures 3-5 through 3-7, which provide detailed illustrations of the Proposed Project components that are associated with Segments 1 through 4.

3.4.1 Segment 1

As illustrated in **Figure 3-5**, *Proposed Activities within Segments 1 and 2*, Segment 1 is located entirely within the fenceline of the Moorpark Substation. Segment 1 begins at the 66 kV switchrack and extends west to a location near the substation fenceline, where it turns north and continues to a riser TSP near the northwest corner of the substation. Activities proposed within Segment 1 include:

- Construction of approximately 500 feet of duct bank consisting of six 5-inch conduits;
- Installation and splicing of 1,200 feet of subtransmission cable; and
- Termination of the new subtransmission cable at a line position in the 66 kV switchrack.

3.4.2 Segment 2

Segment 2 begins at the fence line of the Moorpark Substation and terminates at pole location 28 near the City of Thousand Oaks boundary (see **Figure 3-5**, *Proposed Activities within Segments 1 and 2*, and **Figure 3-6**, *Proposed Activities within Segments 2 and 3*). Project Segment 2 is located entirely within SCE's existing Moorpark-Ormond Beach 220 kV ROW. From the northwest corner of the Moorpark Substation, the proposed 66 kV subtransmission line would exit the substation, proceed southwest for approximately 3,400 feet, then would assume a southerly alignment near Montair Drive, cross State Route (SR) 118 (Los Angeles Avenue), and continue south and west across open space and lands used for agricultural purposes. The 5-mile long new overhead 66 kV subtransmission line in this segment would be installed on TSPs.

Activities proposed within Segment 2 include:

- Construction of two TSP foundations (pole locations 26 and 27);
- Installation of the upper segment of one partially-installed TSP to complete construction at pole location 23;
- Construction of four TSPs (pole locations 24 through 27);
- Installation of approximately 5 circuit miles of 954 aluminum conductor steel-reinforced (ACSR) throughout Segment 2 (between poles 1 and 28); and
- Installation of marker balls on the conductor between poles 25 and 26, and between poles 27 and 28, or as otherwise recommended by the Federal Aviation Administration (FAA).

3.4.3 Segment 3

Segment 3 extends approximately 3 linear miles from the southern end of Segment 2 (north of the boundary of the City of Thousand Oaks), and then south and east to the northern terminus of Segment 4, approximately 0.3 mile west of the intersection of Conejo Center Drive and Rancho Conejo Boulevard (see **Figure 3-6** and **Figure 3-7**, *Proposed Activities within Segments 3 and 4*). With the exception of approximately 400 feet at its northern end, all of Project Segment 3 is located in open space lands managed by COSCA. Project Segment 3 would consist of installing overhead 66 kV subtransmission lines on double-circuited TSPs that would carry both the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line and the Moorpark-Newbury 66 kV Subtransmission Line.

Activities proposed within Segment 3 include:

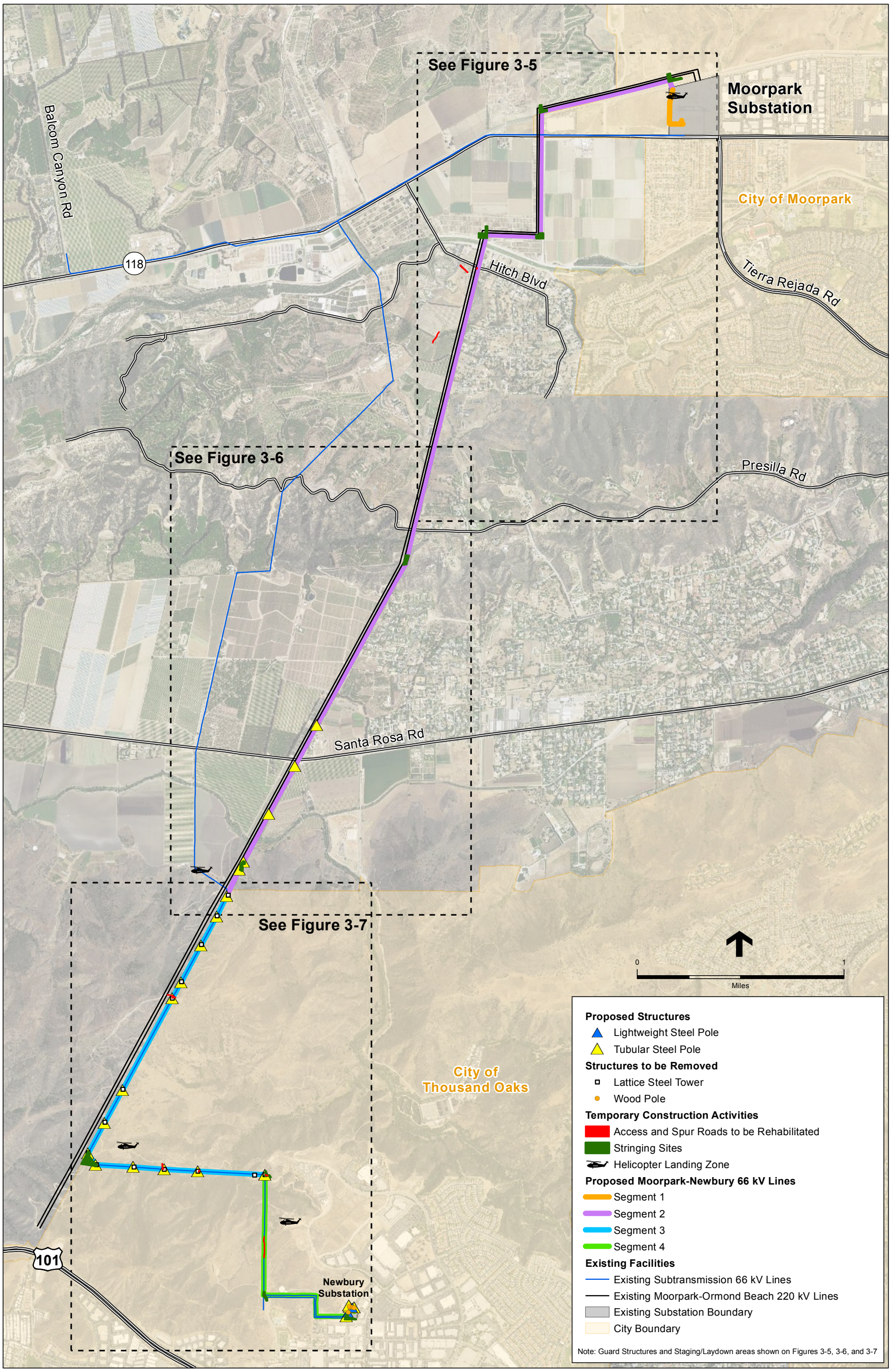
- Installation of eight TSP foundations (five new foundations at pole locations 28, 32, and 38 through 40; and completion of three foundations that have been slurried at pole locations 29 through 31);
- Installation of 13 TSPs (pole locations 28 through 40);
- Removal of 14 existing LSTs and 3 miles of 653 ACSR associated with the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line;
- Installation of approximately 2 miles of double-circuit 954 ACSR on new TSPs. One circuit would be for the new Moorpark-Newbury 66 kV Subtransmission Line and the other circuit would replace the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission line that would be removed (see prior bullet); and
- Installation of marker balls on the conductor between poles 32 and 33, and poles 39 and 40, or as otherwise recommended by FAA.

3.4.4 Segment 4

Segment 4 extends from the southern terminus of Segment 3 to the Newbury Substation (see Figure 3-7). When fully constructed, Project Segment 4 would consist of approximately 1 linear mile of overhead 66 kV subtransmission lines installed on TSPs and LWS poles. The TSPs and LWS poles would primarily be double-circuited.

Proposed activities within Segment 4 include:

- Installation of approximately 0.5 mile of 954 stranded aluminum conductor (SAC) for the new Moorpark-Newbury 66 kV Subtransmission Line;
- Installation of approximately 0.5 mile of fault return conductor (FRC);
- Installation of four TSP foundations at Newbury Substation;
- Installation of four TSPs (pole locations 68, 70, 71, and 73) and two LWS poles (pole locations 69 and 72) at the Newbury Substation;
- Removal of six wood subtransmission poles at Newbury Substation;

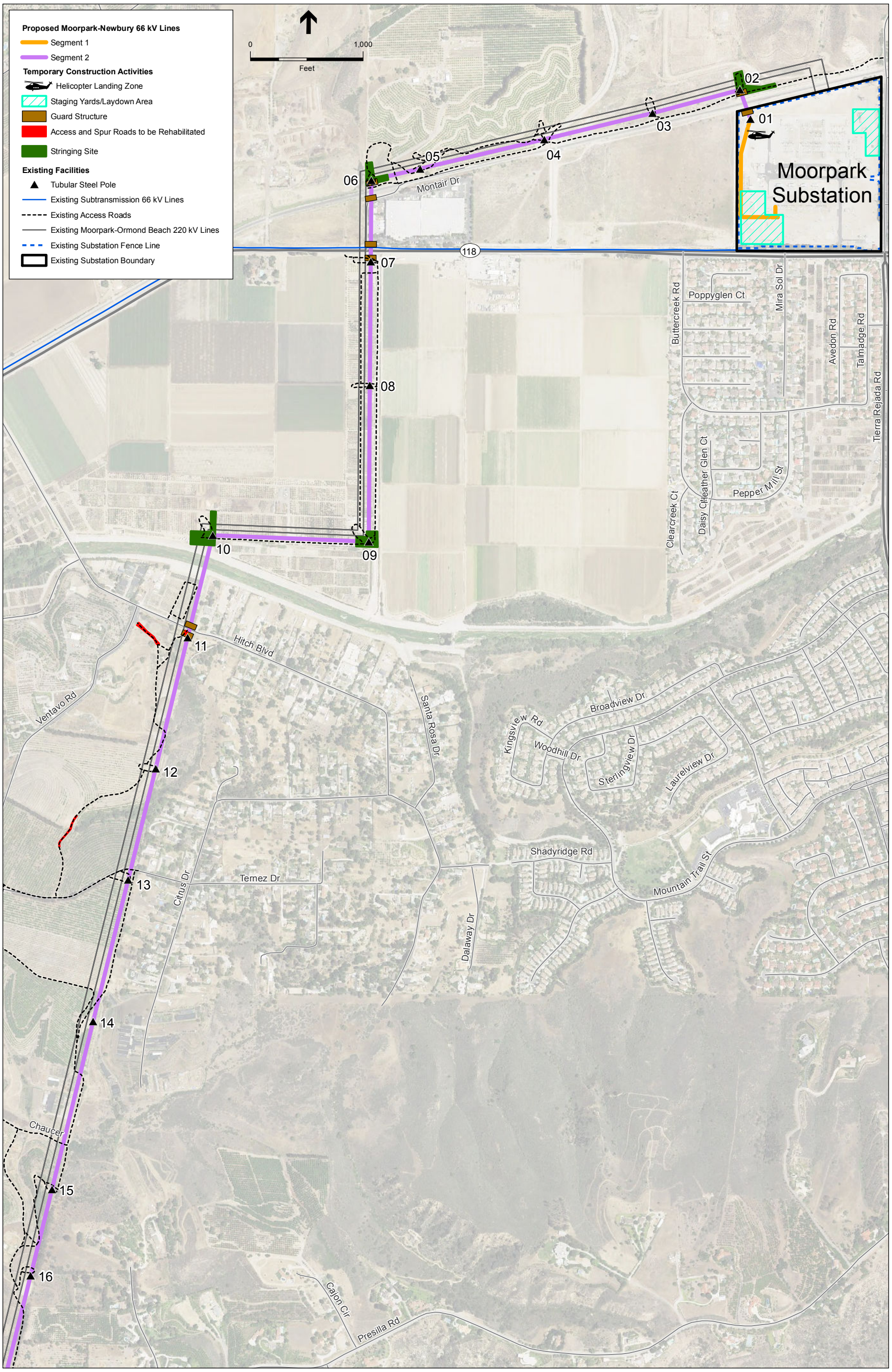


SOURCE: SCE, 2013/2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 3-4

Proposed Project Area and Index Map

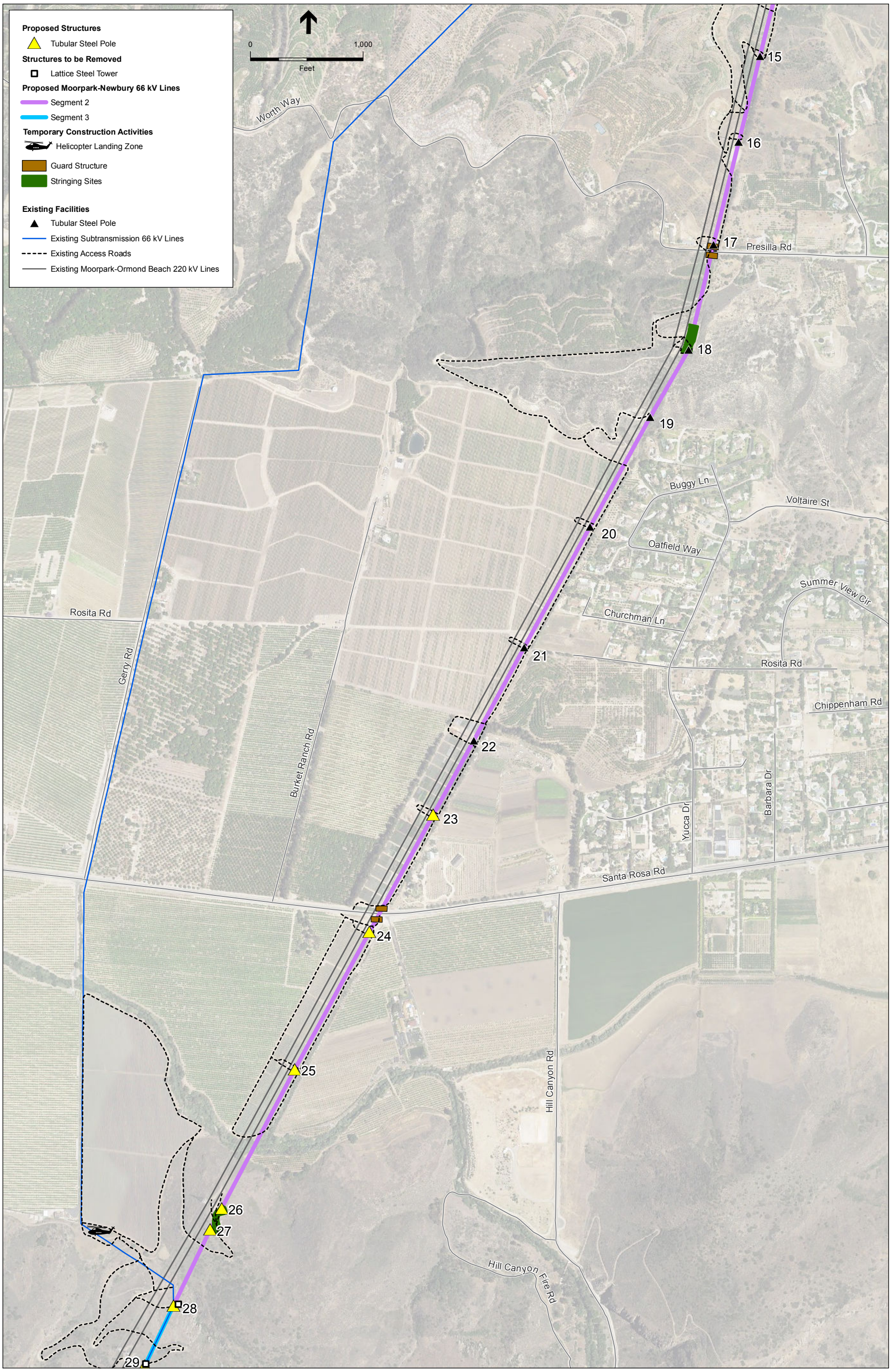


SOURCE: SCE, 2013/2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 3-5

Proposed Activities within Segments 1 and 2

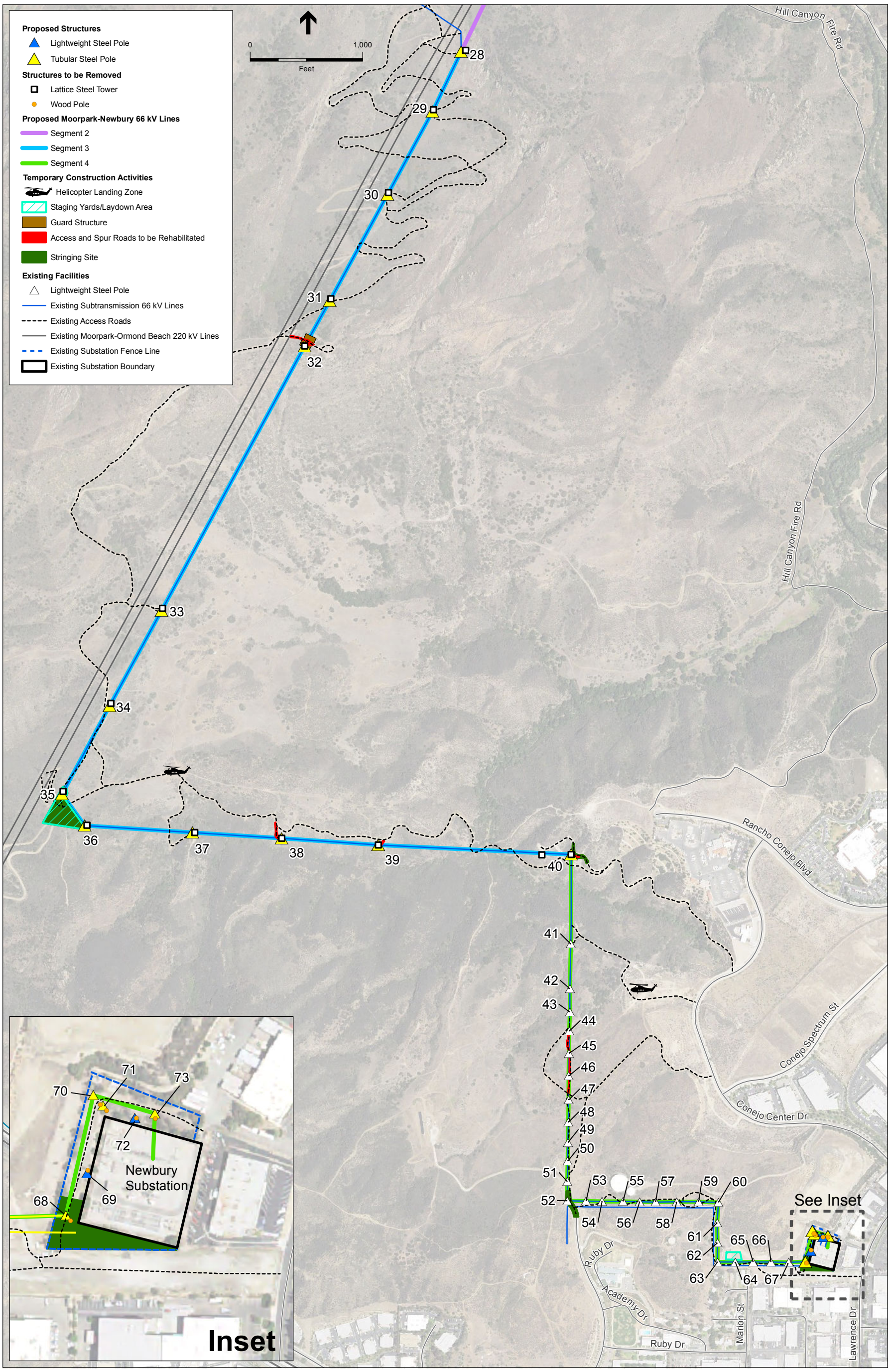


SOURCE: SCE, 2013/2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 3-6

Proposed Activities within Segments 2 and 3

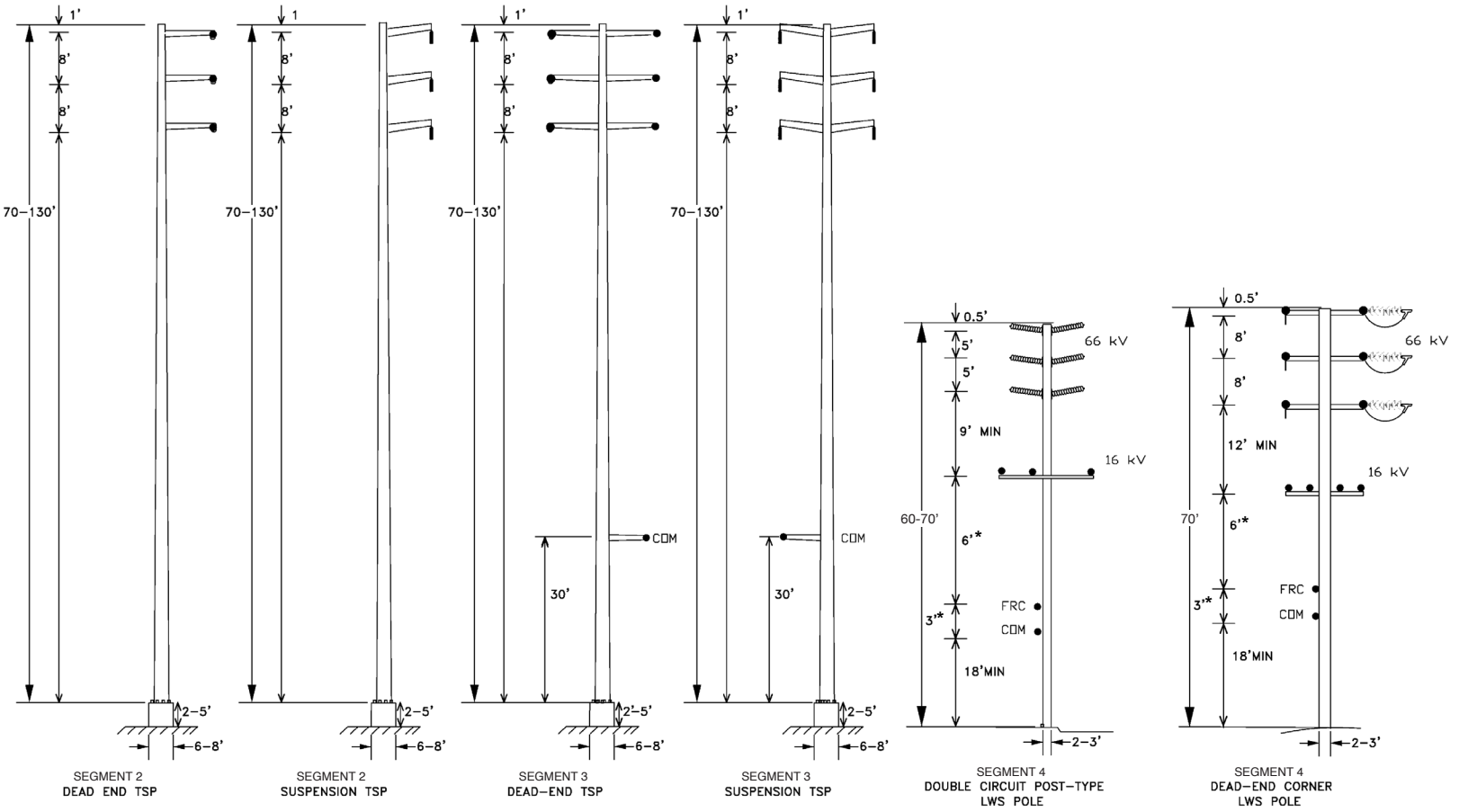


SOURCE: SCE, 2013/2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 3-7

Proposed Activities within Segments 3 and 4



SOURCE: SCE, 2014

Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

Figure 3-8
Typical Pole Design

- Transfer existing subtransmission, distribution and telecommunications facilities to new structures; and
- Installation of marker balls on conductor between poles 40 and 41, or as otherwise recommended by FAA.

3.5 Proposed Project Components

The main Proposed Project components include construction of (1) the 66 kV subtransmission lines, (2) 66 kV subtransmission poles, (3) conductor, and (4) upgrades at the Moorpark and Newbury substations. These components would be completed in one phase and are described in more detail below.

3.5.1 Subtransmission Lines

The Newbury Substation is currently served by the Moorpark Substation by the single-circuit Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line and the Newbury-Thousand Oaks 66 kV Subtransmission Line. A new 9-mile long 66 kV Moorpark-Newbury 66 kV Subtransmission Line would be constructed throughout all four Proposed Project segments, connecting the Moorpark Substation to the Newbury Substation (see Figure 3-1). As summarized in Segment 3.4, above, the Proposed Project would consists of installing new TSPs, replacing LSTs with new TSPs, and replacing existing wood poles at Newbury Substation with new TSPs and LWS poles. The new subtransmission line would be placed on all new TSP and LWS poles throughout all four Proposed Project segments.

3.5.1.1 Subtransmission Poles

The Proposed Project would require the installation of approximately 24 new subtransmission poles, consisting of 22 TSPs, one of which is partially installed, and two LWS poles. These structures would support approximately 9 miles of 954 ACSR, including a 3-mile double-circuit ACSR, and a 0.5-mile segment of 954 SAC.

All poles would be designed to be consistent with the Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 2006 (APLIC, 2006). **Figures 3-4** through **3-7** show the locations of all new poles. **Figure 3-8**, *Typical Pole Design*, depicts typical subtransmission pole configurations of TSPs and LWS poles. **Table 3-1**, *Typical Subtransmission Pole Dimensions*, summarizes the approximate subtransmission structure dimensions.

TABLE 3-1
TYPICAL SUBTRANSMISSION POLE DIMENSIONS

Pole Type	No. of Poles to be Installed	Aboveground Height	Pole Diameter	Auger Hole Depth	Auger Diameter
TSPs	22*	70 to 135 Feet	3 to 6 Feet	17 to 46 Feet	6 to 8 Feet
LWS Poles	2	60 to 70 Feet	2 to 3 Feet	9 to 12 Feet	2 to 3 Feet

* 21 entire TSPs would be installed. One TSP in Segment 2 is partially installed; only the top section would be installed under the Proposed Project.

Tubular Steel Poles

SCE would install 22 TSPs, each of which would have a dulled galvanized finish. TSPs would range from 70 to 135 feet above ground surface (AGS) with an approximate diameter of 3 to 6 feet. TSPs would be installed on a concrete base foundation 6 to 8 feet in diameter that may extend 2 to 5 feet AGS, and approximately 17 to 46 feet below ground. Accordingly, TSP foundations would require approximately 20 to 95 cubic yards of concrete depending upon the diameter and depth of the foundation. Eight of the 22 TSPs would be installed on existing foundations (at pole locations 23, 24, 25, and 33 through 37), three of the TSPs would be installed where holes for foundations have been excavated, but were filled with slurry when construction on the of the project was halted in 2011 (pole locations 29 through 31), and 11 of the TSPs would be installed at sites where foundation work has yet to be started.

Each TSP that would be installed to replace an LST would be installed within approximately 10 to 25 feet of the existing LST it replaces, and in the current alignment of the existing 66 kV subtransmission line.

Lightweight Steel Poles

The Proposed Project would include installation of two LWS poles at Newbury Substation that would be tapered with a dulled galvanized finish. LWS poles would extend approximately 60 to 70 feet AGS, with a base diameter of 2 to 3 feet at the ground level, tapered to the top of the pole. Each LWS pole would be installed within approximately 6 feet of the existing wood pole it replaces and in the current alignment of the subtransmission line. The LWS poles would be direct-buried to a depth of approximately 9 to 12 feet below ground and would require excavation of holes approximately 24 to 36 inches in diameter. Approximately 1.75 cubic yards of soil would be excavated per LWS pole, totaling 3.5 cubic yards of soil altogether.

Although the LWS poles would be earth-grounded structures, an FRC, consisting of bare 4/0 ACSR, would be installed along a portion of Segment 4 to electrically ground the LWS poles. This conductor would be located approximately 1 to 3 feet above the telecommunications facilities and 4 to 6 feet below the distribution facilities.

Guys are anchored wires typically used when poles are located on angles or corners to provide support to the pole. Guying consists of a guy wire (down guy) that is fastened to the pole and attached to a buried anchor, or when there is not adequate space for the required down guy, a shorter guy pole (stub pole) is typically placed with a down guy and buried anchor in a location that has sufficient room for these facilities. SCE does not anticipate needing to install guy wires on the two LWS poles to be installed within Newbury Substation. However, if field conditions require that either pole location needs to be shifted due to an unforeseen issue (such as an unknown underground utility), down guys and/or guy stubs could be required. Any guying required would be located entirely within SCE's Newbury Substation property and no guying across a roadway would be required.

3.5.1.2 Conductor

Above-Ground Conductor

The configuration of conductor on TSPs and LWS poles would vary by segment. In Segments 1 and 2, TSPs would be single-circuited with 954 ACSR. In Segment 3, TSPs would be double-circuited with new 954 ACSR for both the new Moorpark-Newbury 66 kV Subtransmission Line and the reconductored Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line. In Segment 4, TSPs and LWS poles would be double-circuited with existing, transferred 653 ACSR (for the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line) and new 954 SAC (for the new Moorpark-Newbury 66 kV Subtransmission Line). Certain structures in Segment 4 would also support a 16 kV distribution circuit and fault return conductor.

In Segment 2, three conductors would be installed on each TSP. In Project Segment 3, six conductors would be installed on each TSP. In Segment 4 (outside of the Newbury Substation), three subtransmission conductors would be installed on all LWS poles, and FRC would be installed on LWS poles as necessary. In Segment 4 (inside of the Newbury Substation), three subtransmission conductors and FRC would be installed on the LWS and TSP poles (see Figure 3-8 *Typical Pole Design,* for typical configurations of conductor and insulators).

Subtransmission conductor installed on LWS poles would be at least 50 feet AGS as measured at the pole, and conductor installed on TSPs would rise at least 53 feet AGS as measured at the pole. The vertical distance between the conductors installed on LWS poles would be approximately 5 to 8 feet, and approximately 8 feet on TSPs. The horizontal distance between the conductors installed on LWS poles would be approximately 11 feet, and approximately 18 feet on TSPs. The distance between the ground and the lowest conductor would exceed applicable minimum height requirements where the conductor spans roadways, railroads, and flood control structures. Conductor span lengths would vary depending upon topography, engineering, and site considerations. Spans between LWS poles would range from 145 feet to 433 feet; spans between TSPs would range from approximately 205 feet to 2,685 feet.

All conductor installed as part of the Proposed Project would be non-specular.[1] The 954 ACSR would be 1.165 inches in diameter, and the 954 SAC would be 1.124 inches in diameter. The FRC would consist of bare 4/0 ACSR with a diameter of 0.563 inches that would not be non-specular. Overhead structures would also support polymer insulators.

The alignment of some of the Proposed Project infrastructure and terrain in the region requires FAA notification due to the height above ground of the conductor at certain locations. Marker ball spacing would be in accordance with FAA Advisory Circular AC 70/7460-1K, and markers would be spaced equally along the wire at intervals of approximately 200 feet or a fraction thereof (SCE, 2014). The specific number of marker balls required for each identified span would be based on FAA's determination for the Proposed Project. If a span requires three or fewer marker balls, then the marker balls on the span would all be aviation orange. If a span requires more than three marker balls, then the marker balls would alternate between aviation orange,

[1] The term non-specular refers to the diffuse reflection of sound or light waves.

white, and yellow. Marker balls would be 36 inches in diameter. Refer to **Figure 3-9**, *Marker Ball Dimensions*, for an illustration of the type of marker balls that would be installed. Per FAA guidance, marker balls would be displayed on the highest wire or by another means at the same height as the highest wire (SCE, 2014).

Below-Ground Conductor

Underground 66 kV subtransmission facilities would be installed at Moorpark Substation to route subtransmission cable from the TSP riser pole (pole location 1) to the 66 kV switchrack. Approximately 500 feet of duct bank would be constructed as part of the Proposed Project, which would link to an approximately 700-foot-long segment of existing duct bank connecting the TSP riser pole to the 66 kV switchrack.

Three separate 3,000 kcmil copper underground cables approximately 1,200 feet in length each would be installed through the TSP and conduit within the duct bank. The duct bank would be comprised of conduit, spacers, ground wire, and concrete encasement. The duct bank would consist of six 5-inch diameter polyvinyl chloride (PVC) conduits fully encased with a minimum of 3 inches of concrete all around. The duct bank would be installed in an approximately 5-foot deep trench to ensure the minimum 3 feet of cover above the duct bank. The 66 kV duct bank would be installed in a vertically stacked configuration and the duct bank would be approximately 21 inches in height by 20 inches in width. For an illustration of the proposed duct bank, refer to **Figure 3-10**, *Typical Subtransmission Duct Bank*.

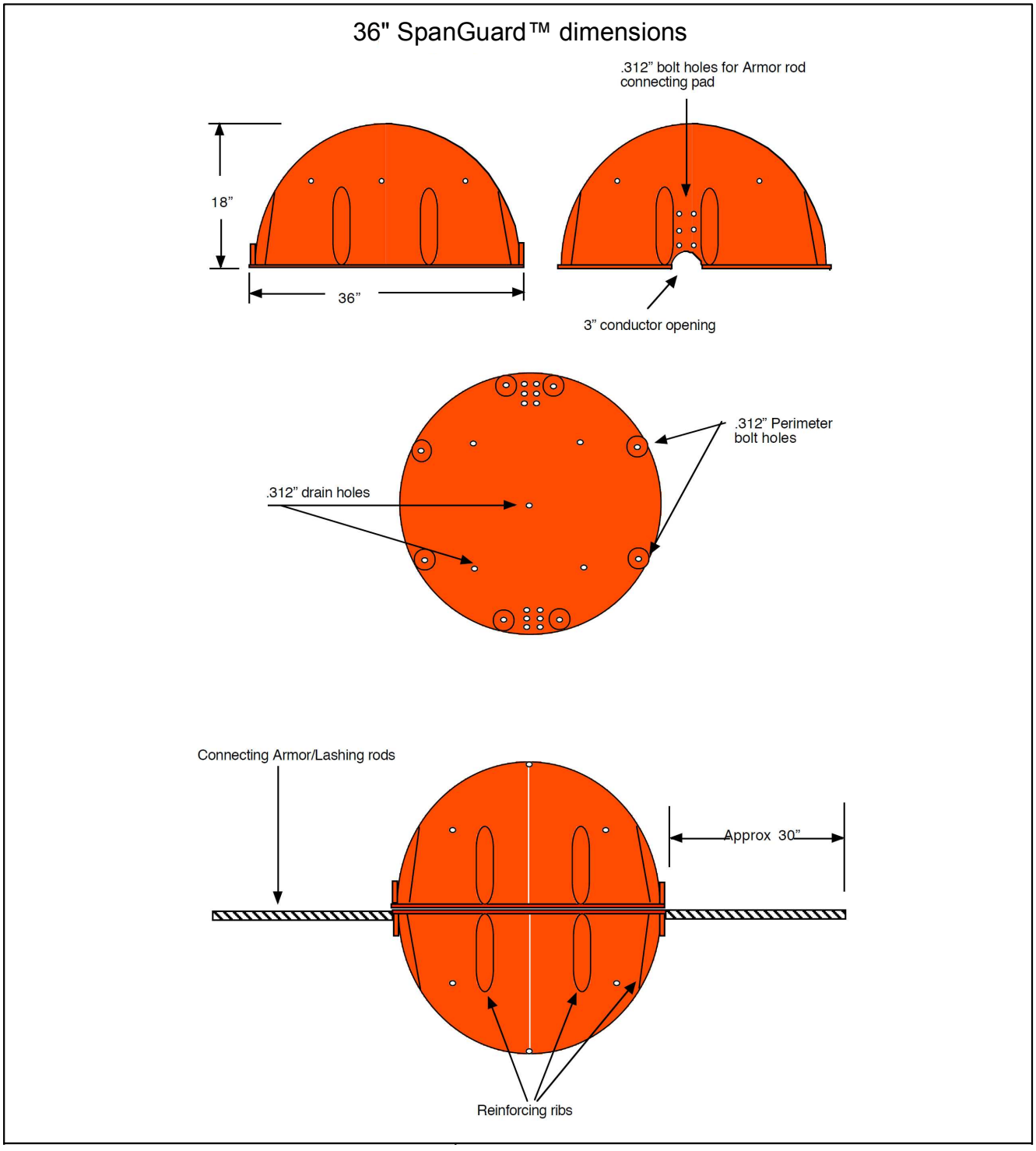
The 66 kV subtransmission duct bank would accommodate six cables; the Project would utilize three cable conduits and leave three spare cable conduits for any potential future circuit pursuant to SCE's current standards for 66 kV underground construction.

3.5.2 Substations

All proposed activities at the Moorpark and Newbury substations would be conducted within the existing substation fencelines. SCE considers the California Building Code and the Institute of Electrical and Electronics Engineers (IEEE) 693, Recommended Practices for Seismic Design of substations when designing substation structures and equipment. Proposed improvements to the existing substations are described below.

3.5.2.1 Moorpark Substation

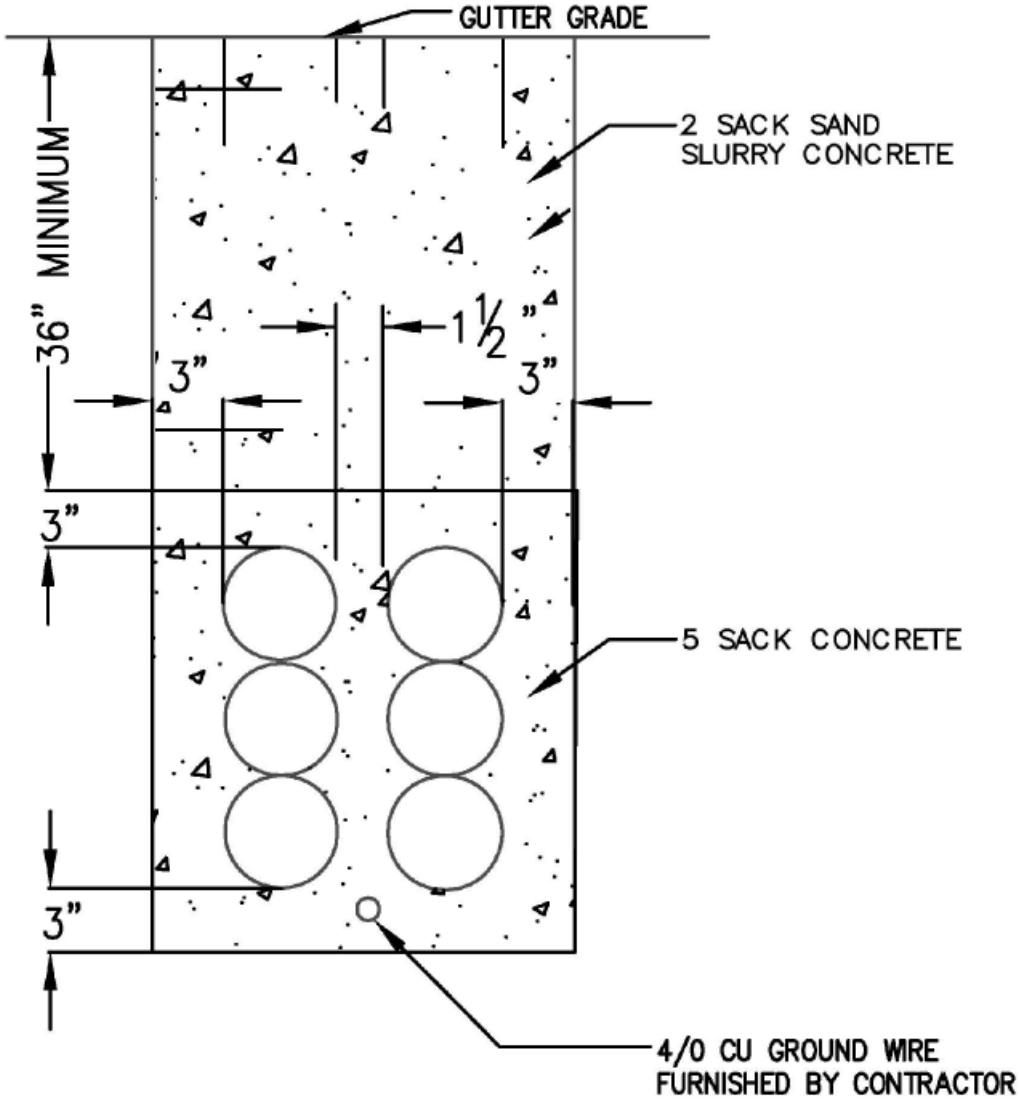
Construction work proposed at Moorpark Substation (located at the intersection of Gabbert Road and Los Angeles Avenue in Moorpark) would include completion of the proposed duct bank, stringing the conductor from the TSP riser pole through the duct bank conduit, and terminating the new Moorpark-Newbury 66 kV Subtransmission Line to the new line position in the existing 66 kV switchrack.



SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

Figure 3-9
Marker Ball Dimensions



TYPICAL DUCT BANK SECTION
(NOT TO SCALE)

Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

SOURCE: SCE, 2013

Figure 3-10
Typical Subtransmission Duct Bank

3.5.2.2 Newbury Substation

Construction activities proposed at Newbury Substation (located on Lawrence Drive between Lavery Court and Corporate Center Drive in the City of Thousand Oaks) include replacing six wood poles with TSPs or LWS poles, reconductoring the poles and transfer bus, and terminating the new Moorpark-Newbury 66 kV Subtransmission Line at the switch rack.

3.5.2.3 Substation Access

Access to the existing Moorpark Substation would not be modified as part of the Proposed Project and would occur via SR 118 (Los Angeles Avenue) and Gabbert Road. Access to the existing Newbury Substation would be modified; the existing gate located on the eastern side of the southeast corner of the substation would be realigned slightly northward to facilitate vehicle movements.

3.5.3 Rights-of-Way Requirements

The Proposed Project would be built entirely within existing ROWs, easements, public ROWs, and on existing SCE "fee-owned" property (i.e., property which is currently legally owned by SCE) (SCE, 2014). In addition, appropriate permits, licenses, and/or property rights would be obtained for flood control, railway, and roadway crossings. If temporary construction access is needed, SCE would work with property owners to secure appropriate rights or permission.

3.6 Construction

The following subsections describe the construction areas and activities that would be associated with the Proposed Project.

3.6.1 Access Roads

Throughout the construction and operation phases of the Proposed Project, access to the 66 kV subtransmission lines would be achieved through the use of approximately 21 miles of existing dirt access roads and existing spur roads that are accessible from paved public and private roads. Access roads are through roads that extend between Proposed Project structure sites along the ROW and serve as the main access route to those sites. Spur roads branch from access roads and terminate at one or more structure sites. Existing access roads and spur roads that would be used during construction of the Proposed Project are shown in Figures 3-5 through 3-7. It should be noted that Figures 3-5 through 3-7 identify the access roads and spur roads as simply access roads for simplicity. Prior to construction, some segments of the existing access and spur roads would require minor rehabilitation, such as light grading and vegetation removal, to facilitate the safe movement of construction vehicles and personnel. Any road or work site location where erosion across the road surface, deterioration of berms and/or swales, water bars, and weed/brush clearing has occurred would be remedied prior to the start of construction. Given the access and spur road conditions as of September 2014, this work would occur along several short road segments for a

total area of approximately 0.5 acre (SCE, 2014). Limited areas of access road would require widening at curves or heavier grading.

3.6.2 Staging Areas

Two portions of Moorpark Substation would be used as staging areas for crew assembly and materials staging. The staging areas would be used as a reporting location for workers and as a parking area for vehicles and equipment. The Moorpark Substation is fenced and lit for staging and security. Electricity for the lighting of the staging areas at Moorpark Substation would be obtained from the SCE electrical grid. The two staging areas are both 'L' shaped and have maximum dimensions of approximately 155 yards by 125 yards (Moorpark Substation #1) and approximately 100 yards by 80 yards (Moorpark Substation #2); these areas cover approximately 3.3 acres and 1.7 acres, respectively. The Moorpark Substation staging areas would require no site preparation, as the staging areas are located on rock- or gravel-covered areas and other previously-disturbed areas within the substation. Refer to **Table 3-2**, *Staging Area, Construction Laydown Area, and Helicopter Landing Zone Locations*, and Figure 3-5 for a description and illustration of the proposed staging area locations, respectively.

TABLE 3-2
STAGING AREA, CONSTRUCTION LAYDOWN AREA, AND HELICOPTER LANDING ZONE LOCATIONS

Name	Location	Pre-Project Condition	Approximate Area	Project Component
Moorpark Substation #1	NW corner of Gabbert Rd and Los Angeles Ave. (NE portion of substation property)	Previously Disturbed	3.3 acres	Staging Area
Moorpark Substation #2	NW corner of Gabbert Rd and Los Angeles Ave. (SW portion of substation property)	Previously Disturbed	1.7 acres	Staging Area
Moorpark Substation Landing Zone	NW corner of Gabbert Rd and Los Angeles Ave. (NW portion of substation property)	Previously Disturbed	0.28 acres	Helicopter Landing Zone (LZ)
Fitzgerald Ranch	W of pole location 28	Previously Disturbed	0.1 acre	Helicopter LZ
COSCA #1	COSCA-owned Lands in Segment 3 at pole locations 35 and 36	Previously Disturbed	1.5 acres	Construction Laydown Area
COSCA #2	COSCA-owned Lands near Segment 3 N of pole location 37	Previously Disturbed	0.1 acre	Helicopter LZ
Shapell Industries	Privately-owned Land East of Segment 4 at pole Location 41	Previously Disturbed	0.1 acre	Helicopter LZ
Newbury Substation	N of pole location 64	Previously Disturbed	0.2 acre	Construction Laydown Area

Materials stored at the staging areas may include the following: construction trailers; construction equipment; steel poles; wire reels; hardware; insulators; cross arms; signage; consumables (such as filler compound); BMP materials (i.e., straw wattles, gravel, and silt fences); portable sanitation facilities; and waste materials for salvaging, recycling, or disposal. The majority of

materials associated with the construction efforts would be delivered by truck to the Moorpark Substation staging area, while some materials may be delivered directly to temporary construction laydown areas. Contractor construction personnel would be managed by SCE construction management personnel and based out of the Contractor's existing yard or the Moorpark Substation staging areas. It should be noted that some of the Proposed Project materials (e.g., pole pieces) are already located at the Moorpark Substation #2 staging area.

3.6.3 Construction Laydown Areas

Construction laydown areas would serve as temporary areas where Proposed Project-related equipment and/or materials would be placed within SCE ROW or franchise. Construction laydown areas would be accessed by construction vehicles using the established access road network. Table 3-2 and Figures 3-5 and 3-7 identify the locations of the proposed construction laydown areas and the land that they would occupy. Construction laydown areas are sited, where possible, in areas that are previously disturbed and that require limited grading. However, construction laydown areas may require light grading/brushing prior to use. At the completion of construction activities, the construction laydown areas would be restored to preconstruction conditions or to the landowner's requirements.

Materials commonly located at the construction laydown areas along the subtransmission line would include, but not be limited to, construction equipment, portable sanitation facilities, foundation cages, steel bundles, steel/wood poles, conductor reels, hardware, insulators, cross arms, signage, consumables, waste materials for salvaging, recycling, or disposal, and stormwater Best Management Practice (BMP) materials (e.g., straw wattles, gravel, and silt fences).

3.6.4 Construction Work Sites

Construction work sites are areas that have previously been established at pole locations. Construction work sites were typically developed with maximum dimensions of approximately 200 feet by 150 feet. A construction work site is generally used for the staging, assembly, and erection of the TSPs or LWS poles, and sites for equipment pads. In most cases, access and spur roads may overlap with construction work sites. During construction, personnel may walk in areas outside of construction work sites after such areas have been surveyed; similarly, equipment may extend in the air beyond anticipated boundaries without additional ground disturbance (such as in the case of a crane boom or arm).

3.6.5 Vehicle Maintenance and Refueling

Routine maintenance and refueling of construction equipment and fuel storage by SCE personnel would occur at SCE's Thousand Oaks Service Center, Valencia Service Center, or Ventura Service Center. These locations are equipped with approved fuel stations. All refueling and storage of fuels at these facilities would be in accordance with site-specific stormwater permits, and refueling equipment procedures would be included within the Storm Water Pollution and Prevention Plan (SWPPP).

Smaller engine equipment such as small compressors, generators, and chainsaws, would be field refueled from approved 5-gallon or smaller fuel containers. Any portable equipment designed to be placed on the ground adjacent to a work area would be placed on tarpaulins to catch any inadvertent dripping or spills (SCE, 2014).

There may be a need for SCE's helicopter contractor to refuel the helicopter at designated helicopter landing zones. The helicopter would be refueled by a fuel tender and helicopter mechanic using a fuel truck. During helicopter refueling an absorbent mat would be laid on the ground below the helicopter fuel tank port to catch any inadvertent spills or drips. Spill prevention procedures as outlined within the California Stormwater Quality Association "Spill Prevention and Control WM-4 (January 2011) and "Vehicle and Equipment Fueling NS-9" (January 2011) would be incorporated into the SWPPP.

3.6.6 Helicopter Access

A Hughes 500E or similar light-duty helicopter would be used during construction of the Proposed Project to facilitate construction, including during the stringing of conductor, dependent upon recommendations by the installation contractor. This helicopter type may also be used to install marker balls on conductor, where appropriate, and to dismantle LSTs. Helicopter payloads would include marker balls, LST parts, and a sock line to be used during wire stringing. Helicopter landings in the Proposed Project area would be limited to the identified helicopter landing zones as identified in Table 3-2 and Figures 3-5 and 3-7. The helicopter and their support vehicles and equipment would be staged from Camarillo Airport, SCE's Air Operations in Chino, or from a contractor's facility.

SCE's helicopter contractor would develop a Proposed Project-specific helicopter use plan, which would be reviewed by SCE to ensure industry best management practices are met. Flight paths would be determined immediately prior to construction by the helicopter contractor. Flight paths would be filed with the appropriate authorities as necessary. Helicopters would be operated within the Proposed Project area between the hours of 7:00 a.m. and 7:00 p.m.

3.6.7 Vegetation Clearance

Blade-grading, mowing, or brushing may occur during construction activities in Project Segments 2, 3, and 4 depending upon the condition of the access roads, spur roads, and construction work sites at the commencement of construction. Vegetation that has grown in these areas in the period between past construction activities and Proposed Project construction activities would be trimmed and/or removed. "Brushing" (i.e., removal of shrubs and other low-lying vegetation within approximately 2 to 5 feet of the edge of access or spur roads to prevent vegetation from intruding into the roadway) would generally be accomplished using a mower-type attachment mounted to a tractor; and in some instances, areas may be brushed by individuals using heavy-duty "weed whacker" type equipment.

Trees that are directly under the new line and of a variety that could grow into the lines would be removed. For trees that are adjacent to and could interfere with the new line, the decision to trim or

remove specific trees would be based on the recommendation of SCE's arborist and/or biologist and would depend on the type, size, location, and condition of the trees. No vegetation clearance is expected to occur within Segment 1. In portions of Segment 2, some tree trimming and/or removal may be necessary. Tree removal or trimming would depend on the type and size of the tree, and its location relative to construction work areas, and/or interference with CPUC General Order 95, *Rules for Overhead Electric Line Construction*. Currently, there is one eucalyptus tree identified just north of SR 118 (Los Angeles Avenue) that would need to be removed; along Montair Drive, approximately 10 to 12 carrotwood trees would need to be trimmed, and two to three pine trees would need to be removed. There are no trees that would be removed or trimmed in Segment 3. In Segment 4, within the outer fenceline of Newbury Substation, approximately 30 to 40 existing trees would require trimming or removal to facilitate construction including myoporum, eucalyptus, Brazilian pepper, California pepper, and Chinese elm trees. Trees would be trimmed or removed using typical arborist equipment, such as bucket trucks, chainsaws, and chippers.

Ministerial permits for tree removal and trimming during construction would be acquired from the City of Moorpark, City of Thousand Oaks, and Ventura County as appropriate.

3.6.8 Subtransmission Line Construction (Above Ground)

The following section describes the construction methodology proposed for installation of the aboveground portion of the new subtransmission line. This would include the following activities: pole installation; conductor and subtransmission line stringing, removal of existing poles, and subtransmission source line energizing. Tower removal and pole installation would require the use of a variety of equipment as presented in Table 3-4, *Construction Equipment and Workforce Estimates*; all construction vehicles and equipment would be moved to pole installation or tower removal sites overland using the existing subtransmission access road network and spur roads.

3.6.8.1 Tower and Pole Removal

As indicated in Figure 3-7, 14 LSTs would be removed within Segment 3 and six wood poles would be removed within Segment 4 at Newbury Substation. At the LST removal sites, previously established work areas would be used. A crane would be positioned approximately 60 feet from the tower location for dismantling purposes. In limited circumstances, a helicopter may be used to dismantle towers. Structures would be dismantled down to the foundations and the removed LSTs would be transported to a staging yard for recycling purposes. Footings would typically be removed 1 to 2 feet belowground and the holes would be filled with excess soil from the area, and smoothed to match the surrounding grade. All areas would be restored to preconstruction conditions or to the landowner's requirements.

A line truck with an attached boom would be used for wood pole removal activities at the Newbury Substation. Construction crew members would hand excavate around the wood pole; a boom would be attached to the pole, and the pole would then be lifted out and placed on the ground or on a trailer. The wood poles would be transported to an SCE facility for reuse or recycling and the remaining holes would be backfilled and compacted with excess soil from the area or with imported fill.

3.6.8.2 Pole Installation

If necessary, all new pole sites would be graded and/or cleared to remove vegetation and provide a reasonable level surface for footing construction. Furthermore, drainage would be designed to prevent ponding and erosive water flows that could damage the structure base. The graded area would be compacted and capable of supporting heavy vehicles.

Tubular Steel Poles

The Proposed Project would require installation of approximately 22 TSPs (note: one TSP at location 23 is partially installed) and 14 TSP foundations. TSP installation would be conducted in two phases: foundation installation, where necessary, then structure assembly/erection. Each TSP installation would use an existing temporary construction site approximately 200 feet by 150 feet that had been previously cleared and/or graded as necessary to provide a reasonably level surface free of vegetation for footing construction, assembly, and erection of TSPs.

Construction of each TSP foundation would require a single drilled, poured-in-place concrete footing that would form the structure foundation. The foundation process would start by drilling the hole using a truck or track-mounted excavators with various diameter augers to match the diameter requirements of the structure. The excavated holes would be approximately 6 to 8 feet in diameter and approximately 17 feet to 46 feet deep, which would result in excavation of 18 to 86 cubic yards of soil. The excavated material would be distributed at each structure site, used to backfill excavations from the removal of nearby LST (if applicable), or may be disposed of at an approved disposal facility in accordance with applicable laws.

Following excavation of the foundation footing, a steel reinforced rebar cage would be set, anchor bolts would be positioned, survey verified, and concrete would then be poured. Steel reinforced rebar cages would be assembled off-site and delivered to each TSP location by flatbed truck. Typically, TSP structures would require approximately 20 to 95 cubic yards of concrete delivered to each structure location. The top of the TSP foundations would extend approximately 2 to 5 feet above ground level.

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

During construction, existing concrete supply facilities would be used; concrete would be mixed at the facility. Concrete samples would be drawn at the time of pour and tested to ensure engineered strengths would be achieved. A normally specified SCE concrete mix typically takes approximately 20 working days to cure to an engineered strength. This strength is verified by

controlled testing of the sampled concrete. Once this strength has been achieved, crews would be permitted to commence erection of the TSP.

TSPs consist of a separate base section and top section(s). The majority of the TSPs would have two sections (i.e., one base section and one top section); however, some of the taller TSPs would consist of three sections (i.e., one base section and two top sections). TSP sections would be hauled from a staging area to the structure site and, where feasible, a crane would unload the individual pole sections on the ground within the designated laydown area. While on the ground, the top section(s) would be configured with the necessary cross arms, insulators, and wire stringing hardware before being set in place. A crane would be used to set each base section on top of previously prepared foundations. When the base section is secured, the top section(s) of the TSP would be set into place onto the base section and the two sections (or three sections for the larger poles) would be bolted together. The sections may also be spot welded together for additional stability.

Light Weight Steel Poles

The Proposed Project would require the installation of two LWS poles at the Newbury Substation (pole locations 69 and 72). LWS pole installation would require excavation of holes using either an auger or a backhoe and would be installed into bored holes that would be approximately 2 to 3 feet in diameter and 10 feet deep. Depending on conditions at each of the LWS pole locations, the top sections may be configured with the necessary cross arms, insulators, and wire-stringing hardware while the sections are on the ground.

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

3.6.8.3 Conductor Stringing

Conductor stringing includes all activities associated with the installation of the wire onto the TSPs and LWS poles. Conductor stringing activities would occur along the length of segments 1 through 3 and a portion of Segment 4. These activities would include the installation of primary conductors, ground wire, insulators, stringing sheaves (rollers or travelers), vibration dampeners, weights, suspension, and dead-end hardware assemblies for the entire length of the route.

Ten stringing sites have been identified and established along the subtransmission alignment (see Figures 3-5 through 3-7). The stringing sites require relatively level areas to allow for maneuvering of the equipment and, when possible, these sites are located on existing roads and level areas to minimize the need for grading and cleanup. The approximate area needed for stringing sites is variable and depends upon terrain.

Wire pulls are the length of any given continuous wire installation process between two selected points along the line. Wire pulls are selected based on availability of dead-end structures, conductor size, geometry of the line as affected by points of inflection, terrain, and suitability of stringing sites. On relatively straight alignments, typical wire pulls occur approximately every 10,000 feet. When the line alignment contains multiple deflections or is situated in rugged terrain, the length of the wire pull is diminished. Generally, stringing sites would be in direct line with the direction of the overhead conductors and established approximately a distance of three times the height away from the adjacent structure.

Each stringing operation would consist of a puller set-up positioned at one end and a tensioner set-up with a wire reel stand truck positioned at the other end. A bucket truck, or helicopter where use of a bucket truck would not be practical, would be used to install a lightweight sock line. The sock line would be threaded through the wire rollers in order to engage a camlock device that would secure the pulling sock in the roller. This threading process would continue between all structures through the rollers of a particular set of spans selected for a wire pull. The sock line would then be used to pull in the wire-pulling rope. The wire-pulling rope would be attached to the conductor using a swivel joint to prevent damage to the conductor and to allow the conductor to rotate freely to prevent complications from twisting as the conductor unwinds off the reel. After the conductor would be pulled in, any required mid-span splicing would be performed. Once the splicing would be completed, the conductor would be sagged to proper tension and dead-ended to structures. Field snubs (i.e., anchoring and dead-end hardware) would be temporarily installed to sag conductor wire to the correct tension at locations where stringing equipment cannot be positioned in back of a dead-end structures. After the wire is dead-ended, the wire would be attached to all tangent structures.

The stringing site locations associated with the Proposed Project would be temporary and the land would be restored to its pre-construction condition following completion of pulling and splicing activities. The stringing sites may also be used for splicing and field snubbing of the conductors.

3.6.8.4 Guard Structures

Guard structures are temporary facilities that would be installed at some conductor transportation, flood control, and utility crossings. These structures would be designed to stop the downward movement of a conductor should it momentarily drop below a conventional stringing height. Guard structures would consist of standard wood poles 40 to 70 feet tall; however, temporary netting could be installed to protect some types of under-built infrastructure or specifically equipped boom-type trucks with heavy outriggers would be used instead of structures at locations of low vehicular traffic, i.e., where the pulled conductors would cross a driveway or infrequently used road or for electric distribution circuits or service. Two to four guard poles would be installed on either side of a crossing to prevent the conductor from dropping. SCE estimates 14 guard structures would be required to construct the Proposed Project. In addition to guard structures and boom trucks, safety devices such as traveling grounds and radio-equipped public safety vehicles would be utilized during conductor stringing activities. Traveling grounds are used to eliminate potential for electrical shock hazards during stringing operations and are installed via the traveling ground rollers on the

conductor at the "wire pull." Radio communication is used for traffic control and to serve as an emergency alert to stop all activity when a safety issue or concern arises.

3.6.8.5 Installation of Marker Balls

Marker balls would be installed on several of the Proposed Project subtransmission line spans where appropriate, in accordance with FAA recommendations. In most cases, marker balls would be installed by a light-duty helicopter to minimize ground disturbance and the inability to install from the ground due to rugged terrain. Helicopter installation may require an outage that de-energizes nearby energized subtransmission lines and transmission lines. Helicopter landing zone staging areas would be established in areas shown in Figures 3-5 and 3-7. Helicopter landing zones would be located in existing disturbed areas.

3.6.9 Subtransmission Line Construction (Below Ground)

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

3.6.9.1 Trenching

The Proposed Project would require the installation of approximately 500 feet of new underground 66 kV subtransmission line conduit within Moorpark Substation. A 20-inch wide by 5-foot deep trench would be required to install the 66 kV subtransmission line conduit. This depth is required to meet the minimum 36 inches of cover above the duct bank. Trenching may be performed by using the following general steps, including but not limited to: mark the location and applicable underground utilities, lay out trench line, saw cut asphalt or concrete pavement as necessary, dig to appropriate depth with a backhoe or similar equipment, and install duct bank. Once the duct bank has been installed, the trench would be backfilled with a two-sack sand slurry mix. Approximately 185 cubic yards of excavated materials would be disposed of at an approved disposal facility in accordance with all applicable laws. Should groundwater be encountered, it would be pumped into a tank and disposed of at an approved disposal facility.

The trench for underground construction would be widened and shored where appropriate to meet California Occupation and Safety Health Administration (CalOSHA) requirements. Trenching would be staged so that open trench lengths would not exceed that which is required to install the duct banks. Where needed, open trench sections would have steel plates placed over them in order to maintain vehicular and pedestrian traffic.

3.6.9.2 Duct Bank Installation

After completion of trenching for the underground 66 kV subtransmission line, SCE would begin to install the underground duct bank. Collectively, the duct bank is comprised of cable conduit, spacers, ground wire, and concrete encasement. The duct bank would consist of six 5-inch diameter PVC conduits fully encased with a minimum of 3 inches of concrete all around. The Proposed Project would utilize three cable conduits and leave three spare cable conduits for any

potential future circuit pursuant to SCE's current standards for 66 kV underground construction. See Figure 3-10, *Typical Subtransmission Duct Bank.* The 66 kV duct bank would be installed in a vertically stacked configuration. Each duct bank would be approximately 21 inches high by 20 inches wide with a minimum of 36 inches of cover. Clearances and depths would meet requirements set forth within Rule 41.4 of CPUC General Order 128.

3.6.9.3 Cable Pulling, Splicing, Termination

Following duct bank installation, SCE would pull the electrical cables through the duct banks, splice the cable segments at each of the existing vaults, and terminate cables at the TSP where the subtransmission line would transition from underground to overhead. To pull the cables through the duct banks, a cable reel would be placed at one end of the conduit segment, and a pulling rig would be placed at the opposite end. The cable from the cable reel would be attached to a rope in the duct bank, and the rope linked to the pulling rig, which would pull the rope and the attached cable through the duct banks. A lubricant would be applied as the cable enters the ducts to decrease friction and facilitate travel through the PVC conduits. The electrical cables for each of the 66 kV subtransmission phases would be pulled through the individual conduits in the duct bank. After cable pulling is completed, the electrical cables would be spliced together. A splice crew would conduct splicing operations at each vault location and continue until all splicing is completed.

3.6.10 Substation Upgrades

As described in Section 3.6.9, above, some below-grade construction would occur at the Moorpark Substation to accommodate installation of underground subtransmission cable, conduits, and duct banks. As shown in Figure 3-7, six wood poles would be replaced with four TSPs and two LWS poles at Newbury Substation. In addition, construction would be required for reconductoring of the bus at Newbury Substation.

3.6.11 Energizing Subtransmission Line

Energizing the new line would be the final step in completing construction of the Proposed Project. Customer outages would not be expected to affect customers served by either Moorpark Substation or Newbury Substation as a result of energizing the new Moorpark-Newbury 66 kV Subtransmission Line. However, during construction, the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line would be de-energized periodically. The Pharmacy section of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line, which includes an existing SCE customer-dedicated substation (i.e., Pharmacy 66/16 kV Substation) would be de-energized to accommodate construction activities that would be associated with terminating the new subtransmission line into Newbury Substation.[2]

To reduce the need for any additional electric service interruptions during construction, de-energizing and re-energizing the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line may occur at night when electrical demand is low and outages can be arranged.

[2] SCE would coordinate the required outage(s) with its single commercial customer served by Pharmacy 66/16 kV Substation to minimize disruption to their operations as feasible.

3.6.12 Land Disturbance

Land disturbance for the Proposed Project would include surface modifications to rehabilitate existing access and spur roads; to rehabilitate and/or establish construction work areas for pole installation, pole and tower removal, and stringing locations; and for the installation of guard locations. It is estimated that the total land disturbance that would occur for the Proposed Project would be 2.92 acres. Construction of all other components would utilize previously disturbed areas. The estimated amount of land disturbance for each Proposed Project component is summarized below in **Table 3-3,** *Estimated Area of Land Disturbance.*

TABLE 3-3
ESTIMATED AREA OF LAND DISTURBANCE

Project Feature	Quantity or Miles	Acres Disturbed During Construction	Acres to be Restored
Existing Access/Spur Roads[a]	21 miles	0.54	0
New TSPs[b]	22 sites	0	0
New LWS Poles[c]	2 sites	0	0
Wood Poles Removal Sites[d]	6 sites	0	0
Stringing Sites[e]	10 sites	0.77	5.42
Guard Structures[f]	14 sites	1.61	1.61
Existing LST Removal Sites[g]	14 sites	0	0.08
Total[h]		**2.92**	**7.11**

[a] Area disturbed during construction would be associated with minor rehabilitation work (e.g., blade-grading, mowing, or bushing, and/or light brushing) within previously disturbed areas.
[b] Installation of the 22 new TSPs would require no new land disturbance.
[c] All LWS poles would be installed within the outer fenceline of Newbury Substation and would not require the establishment of construction work sites.
[d] The wood pole removal sites are all located within the outer fenceline of Newbury Substation and would not require the establishment of construction work sites.
[e] Area disturbed during construction would be associated with minor rehabilitation work (e.g., blade-grading, mowing, or bushing, and/or light brushing) at two stringing sites within previously disturbed areas. Following construction, all 10 string sites would be restored.
[f] Area disturbed to establish guard structure sites would occur in previously undisturbed areas.
[g] The construction areas used for removing existing LSTs would utilize previously disturbed areas and would not require the establishment of construction work sites. Following construction, the area between TSP locations 39 and 40 (0.08 acres) would be restored.
[h] Trenching to install duct bank at Moorpark Substation is not reflected here; this work would occur on previously disturbed SCE-owned lands dedicated to utility functions.

3.6.13 Storm Water Pollution Prevention Plan

Construction of the Proposed Project would disturb a surface area greater than 1 acre; therefore, SCE would be required to obtain coverage under the Statewide Construction General Permit (Order No. 2009-0009-DWQ) from the Los Angeles Regional Water Quality Control Board (RWQCB) (Region 4). To obtain coverage under this permit, SCE would prepare a Storm Water Pollution Prevention Plan (SWPPP) that includes Proposed Project information, design features, monitoring and reporting procedures, as well as Best Management Practices (BMPs). BMPs such as stormwater runoff quality control measures (boundary protection), dewatering procedures, spill reporting, and concrete waste management would be implemented during construction of the

Proposed Project as required under the permit. The SWPPP would be based on final engineering design and would be applicable to all components of the Proposed Project.

3.6.14 Site Cleanup and Waste Management

SCE would clean up all areas temporarily disturbed by construction of the Proposed Project (e.g., staging areas, construction set up areas, pull and tension sites, and splicing sites) to as close to pre-construction conditions as feasible, or to the conditions agreed upon between the landowner and SCE following the completion of construction of the Proposed Project.

Construction of the Proposed Project would result in the generation of various waste materials including wood, metal, soil, vegetation, and sanitation waste (portable toilets). Sanitation waste (i.e., human generated waste) would be disposed of in accordance with applicable requirements. Material from existing infrastructure that would be removed as part of the Proposed Project such as conductor, steel, concrete, and debris, would be temporarily stored in a staging yard as the material awaits salvage, recycling, or disposal.

The existing wood poles removed for the Proposed Project would be returned to the staging yard, and either reused by SCE, returned to the manufacturer, disposed of in a Class I hazardous waste landfill, or disposed of in the lined portion of a municipal landfill which the Regional Water Quality Control Board (RWQCB) has approved for the disposal of treated wood waste.

Material excavated for the Project would either be used as fill, backfill for new TSP or LWS poles installed for the Project, made available for use by the landowner, or reused or disposed of off-site in accordance with applicable requirements. If contaminated material is encountered during excavation, work would stop at that location and SCE's Spill Response Coordinator would be called to the site to make an assessment and notify the proper authorities.

All waste materials that are not recycled would be categorized by SCE in order to assure appropriate final disposal. Solid waste from the Proposed Project, including excavated materials, would be delivered to one of the following locations: Toland Road Landfill, Simi Valley Landfill and Recycling Center, Bradley Landfill and Recycle, or Antelope Valley Landfill.

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

3.6.15 Construction Related Water Use

During construction, water would likely be used to minimize the quantity of airborne dust created by construction activities. Water would also be used during brushing, mowing, and road and work area rehabilitation at the approaches to work areas for installation of TSPs and LWS poles, removal of LSTs and wood poles, and at areas for stringing conductor and helicopter landing

zones (other than Moorpark Substation). These activities would require approximately 37 acre-feet of water altogether, most likely brought to the site by water trucks.

3.6.16 Construction Workforce and Equipment

The estimated number of personnel and equipment required for completion of the Proposed Project are summarized in **Table 3-4**, *Construction Equipment and Workforce Estimates*. SCE anticipates that crews would work concurrently whenever possible; however, the estimated deployment and number of crew members would vary depending on factors such as material availability, resource availability, and construction scheduling.

TABLE 3-4
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES

Activity and Number of Personnel	Number of Work Days	Quantity and Equipment Type	Duration of Use (Hours/Day)	Fuel Type
66 kV Subtransmission Construction				
Survey (4 people)	10	2 1-Ton Trucks, 4x4	8	Gas
Marshalling Yard (4 people)	Duration of Project	1 1-Ton Truck, 4x4	4	Gas
		1 R/T Forklift	6	Diesel
		1 Boom/Crane Truck	2	Diesel
		1 Water Truck	8	Diesel
		1 Truck, Semi Tractor	2	Diesel
Tree Trimming & Removal (5 people)	12	1 Dump Truck, 4x4	8	Diesel
	12	1 1-Ton Truck	8	Diesel
	12	1 Chipper	4	Gas
	6	1 Stump Grinder	6	Gas
	12	1 Manlift/Bucket Truck	8	Diesel
ROW Clearing (5 people)	2	1 1-Ton Truck, 4x4	8	Gas
		1 Backhoe/Front Loader	6	Diesel
		1 Track Type Dozer	6	Diesel
		1 Motor Grader	6	Diesel
		1 Water Truck	8	Diesel
		1 Lowboy Truck/Trailer	4	Diesel
Roads & Landing Work (5 people)	6	1 1-Ton Truck, 4x4	8	Gas
		1 Backhoe, Front Loader	4	Diesel
		1 Track Type Dozer	4	Diesel
		1 Motor Grader	6	Diesel
		1 Water Truck	8	Diesel
		1 Drum Type Compactor	6	Diesel
		1 Excavator	4	Diesel
		1 Lowboy Truck/Trailer	4	Diesel
Guard Structure Installation (6 people)	3	1 3/4-Ton Truck, 4x4	8	Gas
		1 1-Ton Truck, 4x4	8	Gas
		1 Compressor Trailer	4	Diesel
		1 Manlift/Bucket Truck	4	Diesel
		1 Boom/Crane Truck	6	Diesel
		1 Auger Truck	4	Diesel
		1 Extendable Flat Bed Pole Truck	8	Diesel

TABLE 3-4 (Continued)
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES

Activity and Number of Personnel	Number of Work Days	Quantity and Equipment Type	Duration of Use (Hours/Day)	Fuel Type
66 kV Subtransmission Construction (cont.)				
Remove Existing Conductor & Ground Wire (14 people)	5	2 1-Ton Trucks, 4x4	4	Gas
	15	2 Manlift/Bucket Trucks	8	Diesel
	15	2 Boom/Crane Trucks	8	Diesel
	10	1 Bull Wheel Puller	6	Diesel
	10	1 Sock Line Puller	6	Diesel
	15	1 Static Truck/Tensioner	6	Diesel
	15	2 Lowboy Truck/Trailers	4	Diesel
Wood & LWS Pole Removal (6 people)	1	2 1-Ton Trucks, 4x4	8	Gas
		1 Compressor Trailer	4	Diesel
		1 Manlift/Bucket Truck	6	Diesel
		1 Boom/Crane Truck	6	Diesel
		1 Flat Bed Pole Truck	8	Diesel
LST Removal (8 people)	28	2 1-Ton Trucks	4	Gas
		1 Compressor Trailer	8	Diesel
		1 R/T Crane (M)	6	Diesel
		1 Boom/Crane Truck	6	Diesel
		1 Flat Bed Truck/Trailer	4	Diesel
LST Foundation Removal (4 people)	7	1 3/4-Ton Truck, 4x4	4	Gas
		1 Compressor Trailer	8	Diesel
		1 Backhoe/Front Loader	6	Diesel
		1 Dump Truck	6	Diesel
		1 Excavator	4	Diesel
Install TSP Foundations (6 people)	28	1 3/4-Ton Truck, 4x4	4	Gas
	28	1 Boom/Crane Truck	4	Diesel
	28	1 Backhoe/Front Loader	6	Diesel
	28	1 Auger Truck	6	Diesel
	28	1 Water Truck	8	Diesel
	28	1 Dump Truck	4	Diesel
	19	3 Concrete Mixer Trucks	2	Diesel
TSP Haul (4 people)	6	1 3/4-Ton Truck, 4x4	8	Gas
		1 Boom/Crane Truck	6	Diesel
		1 Flat Bed Pole Truck	8	Diesel
TSP Assembly (8 people)	22	2 3/4-Ton Trucks, 4x4	4	Gas
		2 1-Ton Trucks, 4x4	4	Gas
		1 Compressor	6	Diesel
		1 Boom/Crane Truck	8	Diesel
TSP Erection (8 people)	22	2 3/4-Ton Trucks, 4x4	4	Gas
		2 1-Ton Trucks, 4x4	4	Gas
		1 Compressor	4	Diesel
		1 Manlift/Bucket Truck	8	Diesel
		1 Boom/Crane Truck	8	Diesel
LWS Pole Haul (4 people)	1	1 3/4-Ton Truck, 4x4	8	Gas
		1 Boom/Crane Truck	6	Diesel
		1 Flat Bed Pole Truck	8	Diesel

TABLE 3-4 (Continued)
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES

Activity and Number of Personnel	Number of Work Days	Quantity and Equipment Type	Duration of Use (Hours/Day)	Fuel Type
66 kV Subtransmission Construction (cont.)				
LWS Pole Assembly (8 people)	1	2 3/4-Ton Trucks, 4x4	4	Gas
		2 1-Ton Trucks, 4x4	4	Gas
		1 Compressor Trailer	6	Diesel
		1 Boom/Crane Truck	8	Diesel
Install LWS Pole (6 people)	1	1 1-Ton Truck, 4x4	8	Gas
		1 Manlift/Bucket Truck	6	Diesel
		1 Boom/Crane Truck	6	Diesel
		1 Auger Truck	4	Diesel
		1 Backhoe/Front Loader	8	Diesel
		1 Extendable Flat Bed Pole Truck	8	Diesel
Install Conductor (20 people)	96	1 1-Ton Truck, 4x4	4	Gas
	96	1 Manlift/Bucket Truck	8	Diesel
	96	1 Boom/Crane Truck	8	Diesel
	96	1 Dump Truck	2	Diesel
	9	1 Wire Truck/Trailer	6	Diesel
	34	1 Sock Line Puller	6	Diesel
	65	1 Bull Wheel Puller	6	Diesel
	96	1 Static Truck/Tensioner	6	Diesel
	96	1 Backhoe/Front Loader	2	Diesel
	96	1 Lowboy Truck/Trailer	2	Diesel
	6	1 Hughes 500 Helicopter	1	Jet A
	6	1 Fuel Truck	1	Diesel
Guard Structure Removal (6 people)	2	1 3/4-Ton Truck, 4x4	8	Gas
		1 1-Ton Truck, 4x4	8	Gas
		1 Compressor Trailer	4	Diesel
		1 Manlift/Bucket Truck	4	Diesel
		1 Boom/Crane Truck	6	Diesel
		1 Extendable Flat Bed Pole Truck	8	Diesel
Restoration (7 people)	3	2 1-Ton Trucks, 4x4	4	Gas
		1 Backhoe/Front Loader	4	Diesel
		1 Motor Grader	6	Diesel
		1 Water Truck	8	Diesel
		1 Drum Type Compactor	4	Diesel
		1 Lowboy Truck/Trailer	4	Diesel
Duct Bank Installation (6 people)	2	2 1-Ton Trucks, 4x4	4	Gas
		1 Compressor Trailer	4	Diesel
		1 Backhoe/Front Loader	6	Diesel
		2 Dump Trucks	6	Diesel
		1 Pipe Truck/Trailer	6	Diesel
		1 Water Truck	8	Diesel
		3 Concrete Mixer Trucks	2	Diesel
		1 Lowboy Truck/Trailer	4	Diesel

TABLE 3-4 (Continued)
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES

Activity and Number of Personnel	Number of Work Days	Quantity and Equipment Type	Duration of Use (Hours/Day)	Fuel Type
66 kV Subtransmission Construction (cont.)				
Install Underground Cable (8 people)	5	2 1-Ton Trucks, 4x4	4	Gas
		1 Manlift/Bucket Truck	6	Diesel
		1 Boom/Crane Truck	6	Diesel
		2 Wire Truck Trailers	6	Diesel
		1 Puller	6	Diesel
		1 Static Truck/Tensioner	6	Diesel
Substation Construction				
Electrical Work, Moorpark Substation (25 people)	10	2 40 ft. Manlifts	6	Diesel
	10	1 Forklift	6	Diesel
	10	1 Boom Truck	6	Diesel
	10	1 Flat Bed, 5 Ton	2	Gas/Diesel
	10	1 Office Trailer	8	Electric
	10	1 Wiring Trailer	8	Electric
	10	2 Pickups	2	Gas/Diesel
	10	1 Pickup w/ Fuel Tank	2	Gas/Diesel
	5	1 Weld Truck	2	Gas/Diesel
	10	1 Tool Trailer	8	Electric
Wiring Work, Moorpark Substation (3 people)	55	2 Pickup Trucks	2	Gas
		1 Carry-All	2	Gas
Test/Maintenance Work, Moorpark Substation (5 people)	35	2 Pickup Trucks	2	Gas/diesel
	4	1 Gas/Processing Trailer	4	Electric
	5	2 40 ft Manlifts	8	Diesel
Electrical Work, Newbury Substation (25 people)	10	2 40 ft Manlifts	6	Diesel
	10	1 Forklift	6	Diesel
	10	1 Boom Truck	6	Diesel
	10	1 Flat Bed, 5 Ton	2	Gas/Diesel
	10	1 Office Trailer	8	Electric
	10	1 Wiring Trailer	8	Electric
	10	2 Pickup Trucks	2	Gas/Diesel
	10	1 Pickup w/ Fuel Tank	2	Gas/Diesel
	5	1 Weld Truck	2	Gas/Diesel
	10	1 Tool Trailer	8	Electric
Wiring Work, Newbury Substation (2 people)	30	2 Pickup Trucks	10	Gas
Test/Maintenance Work, Newbury Substation (5 people)	35	2 Pickup Trucks	2	Gas/Diesel
	4	1 Gas/Processing Trailer	4	Electric
	5	2 40 ft Manlifts	8	Diesel

SOURCE: SCE, 2013a

3.6.17 Construction Schedule

SCE anticipates that construction of the Proposed Project would take approximately 10 months and expects that construction would occur between fall of 2015 and summer 2016; clean-up would continue through December of 2016. Construction would commence following CPUC approval, final engineering, and procurement activities, and receipt of applicable permits. Construction work would normally occur between 7:00 a.m. and 7:00 p.m. Monday through Saturday. Work hours would be in accordance with local ordinances to the extent feasible, with variances to be obtained from the local jurisdiction as necessary in the event construction activities would occur on days or hours outside of what is specified by ordinance.

3.7 Project Operation and Maintenance

The new and reconductored 66 kV subtransmission lines would be maintained in a manner consistent with CPUC General Order 95, *Rules for Overhead Electric Line Construction*, and General Order 128, *Rules for Construction of Underground Electric Supply and Communication Systems*, as applicable. Normal operation of the 66 kV subtransmission lines would be controlled remotely through SCE control systems, and manually in the field as required.

General Order 165 established minimum requirements for electric subtransmission and distribution facilities, regarding inspections, record-keeping, and reporting. SCE inspects its energized subtransmission overhead facilities a minimum of once per year via ground and/or aerial observation. The frequency of inspection and maintenance activities would depend upon weather effects and any unique problems that may arise due to such variables as substantial storm damage or vandalism. Maintenance activities would include repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, replacing poles and towers, tree trimming, brush and weed control, and access road maintenance. The majority of operation and maintenance activities of overhead facilities are performed from existing access roads with no surface disturbance. However, some repair work on existing poles and towers could occur in undisturbed areas. Existing conductors could require re-stringing to repair damages that could occur due to an unforeseen event such as a storm. Some pulling site locations could be in previously undisturbed areas and at times, conductors could be passed through existing vegetation on route to their destination.[3]

Routine access road and work area maintenance is conducted, and would continue to be conducted, on an annual and/or as-needed basis. Vegetation would be maintained in a manner that would facilitate access and for fire prevention, and blading would occur on an as-needed basis to smooth over washouts, eroded areas, and washboard surfaces. Maintenance could include

[3] Such work would typically be exempt from CPUC GO 131-D permit to construct requirements and/or CEQA, depending on the nature of the work or emergency associated with such damage. In an emergency situation where the conductor is damaged and may pose a risk to public health and safety, SCE would replace the conductor pursuant to the applicable CEQA categorical or statutory exemption for emergency repairs (e.g., CEQA Guidelines Section 15269 and GO 131-D Section III.B.1.h). Even in situations where the conductor may be damaged, but no immediate emergency is presented, SCE would replace such conductor pursuant to CEQA Guidelines Section 15302 and GO 131-D, Section III.B.1.e (the placing of new or additional conductors, insulators, or their accessories on supporting structures already built).

brushing (i.e., trimming or removal of shrubs) approximately 2 to 5 feet beyond berms or road's edge when necessary to keep vegetation from intruding into the roadway. Road maintenance would also include cleaning ditches, moving and establishing berms, clearing and making functional drain inlets to culverts, culvert repair, clearing and establishing water bars, and cleaning and repairing over-side drains. Additional maintenance activities could include repair, replacement, and installation of stormwater diversion devices on an as-needed basis. Insulators could require periodic washing with water to prevent the buildup of contaminants such as dust, salts, droppings, and condensation, and reduce the possibility of electrical arcing that would result in circuit outages and potential fire. The frequency of insulator washing would be based on local conditions and build-up of contaminants. Replacement of insulators, hardware, and other components would be performed as needed to maintain circuit reliability.

Regular tree trimming would be performed in compliance with existing state and federal laws, rules, and regulations and is crucial for maintaining reliable service, especially during severe weather or disasters. Tree trimming standards for distances from overhead lines have been set by the CPUC (General Order 95, Rule 35), Public Resources Code Section 4293, Title 14 California Code of Regulations, Article 4, and other government and regulatory agencies. SCE's approach to tree trimming is to remove at least the minimum required by law plus one year's growth dependent upon the species.

A 10-foot radial clearance around non-exempt poles (as defined by Title 14 California Code of Regulations, Article 4) would be maintained in accordance with Public Resources Code Section 4292. In addition, maintenance for poles within wildland fire areas would include clearing of vegetation around the poles. In some cases, poles may not have existing access roads and would be accessed on foot, by helicopter, or by creating temporary access areas. Operation and maintenance-related helicopter activities could include transportation of transmission line workers, delivery of equipment and materials to structure sites, structure placement, hardware installation, and conductor stringing operations. Helicopter landing areas could occur where access by road is infeasible. In addition, helicopters must be able to land within or near SCE ROWs, which could include landing on access or spur roads.

In addition to regular operation and maintenance activities, SCE would conduct emergency repairs in response to emergency situations such as damage resulting from high winds, storms, fires, and other natural disasters, and accidents. Such repairs could include replacement of downed poles, or lines or re-stringing conductors.

3.8 Applicant Proposed Measures

SCE identified a number of project features in its PEA that were implemented to avoid or minimize environmental impacts during past construction activities associated with the project. SCE has also committed to implementing the project features to avoid or reduce potential impacts of the Proposed Project (which they refer to as "future construction activities") (SCE, 2013a). Although SCE explicitly indicates in its PEA that it has proposed no Applicant Proposed Measures (APMs), for all practical purposes SCE's project features would function as APMs.

Therefore, to maintain clarity in the EIR analyses, SCE's project features are identified and numbered here as APMs. These APMs would be implemented as part of the Proposed Project, and are not considered "mitigation measures" in this EIR. If the EIR is certified and the Proposed Project is approved, SCE's implementation of and compliance with these APMs would be monitored and enforced by the CPUC.

APM AQ-1: Air Quality Protection. SCE has implemented, and would implement, a number of practices, including minimizing equipment idling time and maintaining equipment engines in good condition and in proper tune as per manufacturers' specifications, to reduce emissions.

SCE's practices for the control of fugitive dust emissions, which were implemented during past construction activities and would be implemented during future construction activities, incorporate many of the recommended measures described in the Ventura County Air Pollution Control District's (VCAPCD) Model Fugitive Dust Mitigation Plan, which is reproduced verbatim below:[4]

1. The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.

2. Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.

3. Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:

    a. All trucks shall be required to cover their loads as required by California Vehicle Code §23114.

    b. All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.

4. Graded and/or excavated inactive areas of the construction site shall be monitored by (indicate by whom) at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.[5]

[4] This text is taken verbatim, including the parenthetical remark "(indicate by whom)", from the Ventura County Air Quality Control District's Ventura County Air Quality Assessment Guidelines.

[5] SCE did not/may not always undertake soil stabilization activities in areas that were/are inactive for more than four days due to prohibition of construction activities to protect nesting birds.

5. Signs shall be posted on-site limiting traffic to 15 miles per hour or less.[6]

6. During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the APCD in determining when winds are excessive.

7. Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

8. Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.

APM BIO-1: General.

- Where wood subtransmission poles have been replaced with LWS poles during past construction activities, the previously-installed poles would be retrofitted to be avian-safe with newly available equipment and consistent with the *Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006* (Avian Power Line Interaction Committee, 2006).

- During future construction activities, newly-installed LWS poles would be designed to be avian-safe with newly available equipment and consistent with the *Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006* (Avian Power Line Interaction Committee, 2006).

- Clearance surveys, including avian species, will be conducted no more than 30 days prior to the start of construction in a particular area to identify potential plant and animal species that could be present during construction activities. Clearance surveys will be conducted by a qualified botanist and wildlife biologist and will be limited to areas directly impacted by construction activities.

- A qualified biologist will be present during clearing and restoration activities to ensure that native habitat (coastal sage scrub) removal will be minimized.

- Restoration activities in disturbed areas of native habitat (coastal sage scrub) will continue to be implemented in accordance the CDFW SAA and HRMP requirements, as applicable.

- Implement Worker Environmental Awareness Training (See [PEA] Section 3.9.7).

- Surveys for protected trees will be conducted by a certified arborist to identify trees meeting regulatory protection standards. When applicable, the proper permit will be obtained for trimming and/or removal of protected trees.

[6] SCE did/will not post speed limit signs along the access roads; the design of the roads are not conducive to travel above 15 mph by the types of vehicles used during past construction activities.

APM BIO-2: Special Status Plants.

- Focused surveys for Lyon's pentachaeta and Conejo dudleya to be conducted no more than 30 days prior to start of construction in areas with potentially suitable habitat.[7]

- Areas supporting Lyon's pentachaeta will be flagged prior to project activities by a qualified biologist and avoided during construction. In addition, a biological monitor will be present during project activities occurring within the vicinity of these resources to ensure that no sensitive species will be impacted.[8]

- Areas supporting Conejo dudleya will be flagged prior to project activities by a qualified biologist and avoided during construction. In addition, a biological monitor will be present during project activities occurring within the vicinity of these resources to ensure that no sensitive species will be impacted.[9]

- When digging holes for pole replacements within Lyon's pentachaeta critical habitat the upper six (6) inches of topsoil will be salvaged/stockpiled within Lyon's pentachaeta critical habitat in order to maintain the native seed bank. The topsoil will be stored on a protective surface (such as a tarp), piled no more than three feet high, and was replaced (within two weeks) as the top layer when ground disturbing work was completed.[10]

- Where applicable, disturbed areas within Lyon's pentachaeta habitat will continue to be restored in accordance with the CDFW SAA and HRMP requirements.[11]

APM BIO-3: Special Status Birds.[12]

- Focused protocol surveys to be conducted prior to construction for the coastal California gnatcatcher (Polioptila californica californica).

- During the breeding season (February 15 through August 30), a protocol survey for the coastal California gnatcatcher will be conducted prior to construction by a wildlife biologist possessing a valid recovery permit from the USFWS for the coastal California gnatcatcher.

- If project activities occur during the breeding season (February 15 through August 30), a 500-foot buffer will be established around coastal California gnatcatcher nest sites, and this area will be avoided until the young fledged or until the birds abandoned the nest.

- No grading of habitat occupied by nesting coastal California gnatcatchers (including a 500-foot buffer area in all direction from the nest) will occur during the breeding season (February 15 through August 30).

- Project activities that will occur within 500 feet of a mapped coastal California gnatcatcher territory will be monitored by a qualified biologist who possesses a valid recovery permit for the species.

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7 August 30, 2010 letter from SCE to Ms. Diane K. Noda, Field Supervisor, Ventura Fish and Wildlife Office in [PEA] Appendix F.
8 *Ibid.*
9 *Op cit.* 6
10 *Op cit.* 6
11 February 16, 2010 California Department of Fish and Wildlife Streambed Alteration Agreement for the Moorpark Newbury Park 66kV Line Area Notification #1600-2011 0325-R5 Revision 2; contained in [PEA] Appendix F.
12 *Op cit.* 6

APM BIO-4: Nesting Bird Protection. SCE will develop and implement a project-specific nesting bird management plan (the plan) addressing nesting birds in collaboration with the CDFW and USFWS as needed. The plan would be an adaptive management plan to be updated as needed improvements are identified or conditions in the field change. Conditions typically implemented in this plan would include: nest management and avoidance, field approach (survey methodology, reporting, and monitoring), and the Project avian biologist qualifications. The avian biologist would be responsible for oversight of the avian protection activities including the biological monitors. In order to minimize impacts to nesting birds (common or special status), ongoing preconstruction surveys and daily sweep surveys of active construction areas by a qualified biologist would focus on breeding behavior and a search for active nests, as defined by CDFW and USFWS, within 500 feet of the Project. At a minimum, the plan would include the following:

- For vegetation clearing that needs to occur during the typical nesting bird season (February 1 to August 31; as early as January 1 for raptors) qualified biologists would conduct nesting bird surveys. If an active nest were located, the appropriate avoidance and minimization measures from the management plan would be implemented. If active nest removal is required, SCE would consult with CDFW and USFWS;

- During the typical nesting bird season, SCE would conduct preconstruction clearance surveys no more than 14 days prior to construction and in accordance with the adaptive management plan, to determine the location of nesting birds and territories. Preconstruction sweeps would be conducted within 3 days before construction begins at a given project location;

- Nest monitoring would be conducted by Project biological monitors with knowledge of bird behavior;

- Nesting deterrents (e.g., mooring balls, netting, etc.) would be used for inactive nests at the direction of the Project avian biologist in consultation with CDFW and USFWS;

- A Project avian biologist would determine the appropriate buffer area around active nest(s) and provisions for buffer exclusion areas (e.g., highways, public access roads, etc.) along with construction activity limits. The Project avian biologist would determine, evaluate, and modify buffers as appropriate based on species tolerance and behavior, the potential disruptiveness of construction activities, and surrounding conditions; and,

- The Project biological monitor would ensure implementation of appropriate buffer areas around active nest(s) during project activities. The active nest site and applicable buffer would remain in place until nesting activity concluded. Nesting bird status reports would be submitted according to the management plan.

APM CUL-1: Cultural and Paleontological Resources. A cultural resources survey of the Project area was conducted prior to past construction activities. Additionally, a number of physical protection and impact avoidance measures were implemented prior to, and during, past construction activities. These activities would also be implemented prior to, and during, future construction activities:

- Physically isolate within an Environmentally Sensitive Area (ESA) one cultural resource discovered during previous surveys. The ESA is an area in which construction activities are prohibited, and from which construction workers are excluded.

- Utilize an archaeological monitor on site during ground disturbing activity in the vicinity of identified archaeological resources.

- Conduct a preconstruction meeting to orient construction crews to sensitive areas prior to any ground disturbing activity within the vicinity of identified archaeological resources.

- Should cultural material that may yield sensitive information be uncovered during construction, then all work within a 15-meter radius of the discovery will be halted until the find is evaluated by a qualified archaeologist. In the case of unearthing human remains during excavation, no further disturbance occurs until the County Coroner makes the necessary findings as to origin and distribution, pursuant to Public Resources Code Section 5097.98. (No cultural material or human remains were uncovered during past construction activities.)

- If construction is halted because of an archaeological discovery, no work begins within that area until written notification from a qualified archaeologist is given to the Project Manager or construction foreman.

APM CUL-2: Unanticipated Discoveries. If previously unidentified cultural resources are discovered during construction, personnel would suspend work in the vicinity of the find. The resource would then be evaluated for listing in the California Register of Historical Resources (CRHR) by a qualified archaeologist, and, if the resource is determined to be eligible for listing in the CRHR, the resource would either be avoided or appropriate archaeological protective measures would be implemented.

If human skeletal remains are uncovered during Project construction, SCE and/or its contractors shall immediately halt all work in the immediate area, contact the applicable County Coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. Per Health and Safety Code Section 7050.5, upon the discovery of human remains, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. If the applicable County Coroner determines that the remains are Native American, it is anticipated that the coroner would contact the Native American Heritage Commission in accordance with Health and Safety Code Section 7050.5(c) and Public Resources Code Section 5097.98 (as amended by AB 2641). In addition, SCE shall ensure that the immediate vicinity where the Native American human remains are located is not damaged or disturbed by further development activity until SCE has discussed and conferred, as prescribed in Public Resource Code Section 5097.98, with the most likely descendants regarding their recommendations.

APM CUL-3: Paleontological Resources Protection. To protect paleontological resources, SCE would implement procedures including, but not limited to: preconstruction coordination; recommended monitoring methods; emergency discovery procedures; sampling and data recovery methods, if needed; museum storage coordination for any specimens and data recovered; and reporting requirements.

APM GEO-1: Geotechnical Design Considerations. A geotechnical data report was prepared for the Project prior to the beginning of construction. The investigation included a total of fourteen (14) soil and rock core borings to collect samples for laboratory testing and analyses and to evaluate the subsurface soil and bedrock conditions. The results of the investigation were utilized to identify the geologic setting and engineering properties of soil and bedrock underlying the ROW, as well as to provide recommendations for the design of foundations for the subtransmission line structures. A geotechnical investigation for the installation of TSPs at the Newbury Substation property would be performed prior to future construction activities at this location.

Based on the findings of the past and future geotechnical analyses, SCE did and would design Project components to minimize the potential for impacts from landslides, lateral spreading, subsidence, liquefaction, or collapse. Measures that have been, or may be, used to minimize impacts could include, but are not limited to avoidance of highly unstable areas and construction of pile foundations. Additionally, subtransmission poles are designed consistent with CPUC General Order 95, *Rules for Overhead Line Construction*.

APM NOI-1: Noise Reduction. Noise-generating construction activities were, and would be, conducted generally only during daytime hours (7:00 a.m. to 7:00 p.m.), Monday through Saturday. Construction activities were, and would be, conducted or staggered to ensure that the noise generated during construction would not exceed significance thresholds or durations identified by the County of Ventura noise regulations set forth in the County's Construction Noise Threshold Criteria and Control Plan (2010).

APM TRA-1: Traffic Control. Construction activities completed within public street ROWs may require the use of a traffic control service, and lane closures conducted in accordance with local ordinances and city permit conditions. Traffic control measures used are consistent with those published in the California Joint Utility Traffic Control Manual (California Inter-Utility Coordinating Committee, 2010) or local jurisdictional requirements.

As discussed in Section 4.16, during the past activities, traffic control measures were not needed due to the location and type of work conducted. During future construction activities, SCE would implement recommendations contained in the CJUTCM, including consulting and coordinating with local jurisdictions, to ensure the safe and efficient transit of vehicles, bicyclists, and pedestrians through laydown/work areas.

APM WET-1: Worker Environmental Awareness Training. Prior to the start of past construction activities, a Worker Environmental Awareness Plan (WEAP) was developed. A presentation was prepared by SCE and used to train site personnel prior to the commencement of work. A record of all trained personnel was kept. This process would be repeated prior to and during the future construction activities.

The WEAP training included a list of phone numbers of SCE environmental specialist personnel associated with the Project (archaeologist, biologist, environmental compliance coordinator, and regional spill response coordinator), and covered the following topics:

- Archaeological Resources Training
  - An Environmentally Sensitive Area (ESA) has been physically delineated and marked to protect an archaeological resource
  - All work and equipment staging, storing, and placement shall remain outside the ESA
  - The Project has implemented procedures to follow if unanticipated archaeological resources are discovered, including:
    - If archaeological resources are discovered during construction activities, all work in the vicinity of the find shall halt
    - The archaeological monitor shall be informed
    - The archaeological monitor shall notify the project foreman and SCE archaeologist immediately
    - Archaeological monitors have the authority to temporarily halt work in the area of archaeological discoveries until the resource has been evaluated by a qualified archaeologist
    - Work in the area of the discovery shall not resume until written notification is received from the SCE archaeologist
  - The SCE archaeologist will provide an estimate of how long an excavation of the resource would take
  - The Project has established procedures to follow if human remains are encountered. If human remains are encountered during earth-disturbing activities, State Health and Safety Code Section 7050.5 states that there "shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered [has made the appropriate assessment and] the recommendations concerning the treatment and disposition of the human remains has been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code."
- Biological Resources Training. Workers were informed of general and Project-specific biological impact reduction measures, including:
  - Keep vehicles on existing roads and pads
  - Avoid impacts to drainages
  - Minimize clearing of vegetation
  - Avoid trapping animals by covering trenches/holes at the end of each day
  - Workers informed of requirements and actions under Migratory Bird Treaty Act
  - Workers informed of protected plant and wildlife species that may be found in the Project Area, where they have been identified during past surveys, and protection measures that may be implemented

- SWPPP Training
  - Background on the regulatory climate
  - Education on individual and corporate responsibilities under the Clean Water Act
  - Presentation of activities covered under the Construction General Permit, and requirements of the Construction General Permit
  - Develop and implement a SWPPP
  - Eliminate or control non-stormwater
  - Visual inspections
  - Identification of SWPPP requirements
  - Daily inspection checklist
  - Maps
  - BMPs
  - Presentation on spill prevention and control, and spill notification procedures
  - Identification of common stormwater violations
  - Education on how to identify problems and devise solutions
  - Instruction on the importance of maintaining the construction site. All trash must be removed from the job sites daily, and all construction debris shall be removed at the end of construction
  - Instructions to notify the foreman and regional spill response coordinator in case of a hazardous materials spill or leak from equipment, or upon the discovery of soil or groundwater contamination
  - Instruction that noncompliance with any laws, rules, regulations, or mitigation measures could result in being barred from participating in any remaining construction activities associated with the Project

3.9 Electric and Magnetic Fields Summary

Extremely low frequency (ELF) electric and magnetic fields (EMF) include alternating current (AC) fields and other electromagnetic, non-ionizing radiation from 1 Hz to 300 Hz. Power lines, like electrical wiring and electrical equipment, produce ELF fields at 60 Hz (OSHA, 2014). This EIR does not consider EMF in the context of the CEQA analysis of potential environmental impacts because: [1] there is no agreement among scientists that EMF creates a potential health risk, and [2] there are no defined or adopted CEQA standards for defining health risk from EMF. For example, on behalf of the CPUC, three scientists who work for the California Department of Health Services (DHS) were asked to review studies by the National Institutes of Environmental Health Sciences Working Group, the International Agency for Research on Cancer, and the British National Radiological Protection Board about possible health problems from electric and magnetic fields from power lines, wiring in buildings, some jobs, and appliances (Neutra et al.,

2002). The results of their evaluation noted “important differences between the three DHS reviewers’ conclusions” and made no recommendations about actions to be taken to address potential health risks (Id.).

However, recognizing that there is a great deal of public interest and concern regarding potential health effects from human exposure to EMF from transmission lines, this document does provide information regarding EMF associated with electric utility facilities and human health and safety. Thus, the EMF information in this EIR is presented for the benefit of the public and decision makers.

Potential health effects from exposure to electric fields from transmission lines (i.e., the effect produced by the existence of an electric charge, such as an electron, ion, or proton, in the volume of space or medium that surrounds it) typically do not present a human health risk since electric fields are effectively shielded by materials such as trees, walls, etc. Therefore, the majority of the following information related to EMF focuses primarily on exposure to magnetic fields (i.e., the invisible fields created by moving charges) from transmission lines.

After several decades of study regarding potential public health risks from exposure to power line EMF, research results remains inconclusive. Several national and international panels have conducted reviews of data from multiple studies and state that there is not sufficient evidence to conclude that EMF causes cancer. Most recently the International Agency for Research on Cancer and the California Department of Health Services both classified EMF as a possible carcinogen.

Presently, there are no applicable federal, state, or local regulations related to EMF levels from power lines or related facilities, such as substations. However, the CPUC has implemented a decision (D.06-01-042) requiring utilities to incorporate “low-cost” or “no-cost” measures for managing EMF from power lines up to approximately four percent of total project cost.

Using the four percent benchmark and otherwise in accordance with “EMF Design Guidelines” filed with the CPUC in compliance with CPUC Decisions 93-11-013 and 06- 01-042, SCE would implement low- and no-cost measures to reduce magnetic field levels for the Proposed Project. The specific measures are described in the Field Management Plan submitted by SCE in its application for a PTC the Proposed Project (SCE, 2013b). A copy of the Field Management Plan is included in the EIR as Appendix C and its measures are summarized in **Table 3-5**, *Low and No Cost Measures Identified for the Proposed Project*.

TABLE 3-5
LOW- AND NO-COST MEASURES IDENTIFIED FOR THE PROPOSED PROJECT

Project Component	Location	Proposed Low- and No-Cost Measures
Moorpark Substation (Proposed Project Segment 1)	Near the intersection of Gabbert Road and east Los Angeles Avenue in Moorpark, CA	• Place new substation electrical equipment (such as underground duct banks) away from the substation property lines closest to populated areas
Segment 2 (Proposed Project Segment 2) Existing Moorpark - Ormond Beach No. 1, 2, 3, and 4 220 kV T/Ls and the proposed Moorpark-Newbury 66 kV Subtransmission Line	Moorpark Substation to approximately 0.75 miles south of Santa Rosa Road	• Utilize subtransmission structure heights that meet or exceed SCE's preferred EMF design criteria • Arrange conductors of proposed subtransmission line for magnetic field reduction
Segment 3a (Proposed Project Segment 3) Existing Moorpark - Ormond Beach No. 1, 2, 3, and 4 220 kV T/Ls; existing Moorpark-Newbury- Pharmacy 66 kV Subtransmission Line; and the proposed Moorpark- Newbury 66 kV Subtransmission Line	Just south of Santa Rosa Road to the breakoff point between the 220 kV and 66 kV lines	• Utilize subtransmission structure heights that meet or exceed SCE's preferred EMF design criteria • Arrange conductors of subtransmission lines for magnetic field reduction • Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction
Segment 3b (Proposed Project Segment 3) Existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line and the proposed Moorpark-Newbury 66 kV Subtransmission Line	From the breakoff point between the 220 kV and 66 kV lines east for approximately 0.85 miles	• Utilize subtransmission structure heights that meet or exceed SCE's preferred EMF design criteria • Arrange conductors of subtransmission line for magnetic field reduction • Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction
Segment 4a (Proposed Project Segment 4) Existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line and the proposed Moorpark-Newbury 66 kV Subtransmission Line	From the end of Segment 3 south to the junction point with Newbury-Thousand Oaks 66 kV Subtransmission Line	• Utilize subtransmission structure heights that meet or exceed SCE's preferred EMF design criteria • Arrange conductors of subtransmission line for magnetic field reduction • Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction
Segment 4b (Proposed Project Segment 4) Existing Newbury-Thousand Oaks 66 kV Subtransmission Line; existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line; and the proposed Moorpark-Newbury 66 kV Subtransmission Line	From the junction point with Newbury-Thousand Oaks 66 kV Subtransmission Line east and south to Newbury Substation	• Utilize subtransmission structure heights that meet or exceed SCE's preferred EMF design criteria • Arrange conductors of subtransmission line for magnetic field reduction • Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction
Newbury Substation (Proposed Project Segment 4)	Near the intersection of Marion Street and Roth Court in Newbury Park, CA	No low- or no-cost measures are proposed for Newbury Substation

SOURCE: SCE, 2013b

References – Project Description

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

Neutra et al., 2002. Raymond Richard Neutra, M.D., Dr., P.H.; Vincent DelPizzo, Ph.D. GDE; and Geraldine M. Lee, Ph.D. An Evaluation of the Possible Risks from Electric and Magnetic Fields (EMFs) from Power Lines, Internal Wiring, Electrical Occupations, and Appliances, June 2002.

Southern California Edison (SCE), 2013a. Proponent's Environmental Assessment, Moorpark-Newbury 66 kV Subtransmission Line Project, October 28, 2013.

Southern California Edison (SCE), 2013b. *Application of Southern California Edison Company (U 338 E) for a Permit to Construct Electrical Facilities withy Voltages Between 50 kV and 200 kV: Moorpark-Newbury 66 kV Subtransmission Line Project, Appendix F, Field Management Plan*, October 2013.

Southern California Edison (SCE), 2014. Data Request Response 2. DATA REQUEST SET A1310021 Moorpark-Newbury-ED-SCE-02, August 15, 2014, and Supplemental Responses submitted on October 7.

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CHAPTER 4
Project Alternatives

California Environmental Quality Act (CEQA) requires a lead agency to analyze a reasonable range of alternatives to a proposed project that feasibly could attain most of the basic objectives of the project while substantially reducing or eliminating its significant environmental effects. CEQA also requires an Environmental Impact Report (EIR) to evaluate a "no project" alternative. This chapter describes the process that was used to identify and screen alternatives to the Proposed Project for consideration, provides the rationale for why some alternatives were eliminated from further consideration, and describes those alternatives that were carried forward for analysis in this EIR. The potential environmental impacts of the alternatives carried forward are analyzed relative to the impacts of the Proposed Project in Chapter 5, *Environmental Analysis*. The results of the comparative analysis are summarized in Chapter 6, *Comparison of Alternatives*, which compares the conclusions of the impact analyses for each of the alternatives against the conclusions for the Proposed Project.

4.1 CEQA Context for the Consideration of Alternatives

CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that otherwise would occur. Where a lead agency has determined that, even after adoption of all feasible mitigation measures, a project as proposed still would cause significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, first must determine whether, with respect to such impacts, there remain any project alternatives that are both environmentally superior and feasible within the meaning of CEQA.

The CEQA Guidelines provide the following guidance for discussing project alternatives:

- An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation (CEQA Guidelines §15126.6(a)).
- An EIR is not required to consider alternatives that are infeasible (§15126.6(a)).
- The discussion shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (§15126.6(b)).

- The range of alternatives shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects (§15126.6(c)).

- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project (§15126.6(d)).

CEQA Guidelines Section 15364 defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." Factors considered in addressing the feasibility of potential alternatives for the Proposed Project included site suitability; economic viability; availability of infrastructure; statutory, regulatory, and other legal limitations; jurisdictional boundaries (e.g., the Applicant's service territory), and whether the Applicant has or could obtain access to potential alternative sites. None of these factors alone established a fixed limit on the scope of alternatives (CEQA Guidelines §15126.6(f)).

CEQA requires an EIR to evaluate a "no project" alternative to allow decision-makers to compare the impacts of approving a proposed project with the impacts of not approving it (CEQA Guidelines §15126.6(e)). For the Proposed Project, two "no project" scenarios are evaluated. The No Project Alternative 1 analysis evaluates the existing conditions at the time the Notice of Preparation was published as well as what reasonably would be expected to occur in the foreseeable future if the Proposed Project were not approved, and all of the existing infrastructure that has been installed associated with past project construction ("the project") would be left in place. The No Project Alternative 2 scenario includes removal of infrastructure that has been installed associated with the project. The No Project Alternatives 1 and 2 for the Proposed Project are described in Section 4.4.

4.2 Alternatives Development and Screening Process

To develop a range of alternatives for analysis, the following process was used:

- Developed an understanding of the Proposed Project, identify the need for and basic objectives of the Proposed Project, and consider the significant adverse impacts that the Proposed Project may have;

- Considered input received from the public during and after the scoping process that relates to alternatives to the Proposed Project;

- Evaluated electrical engineering data projections for the Moorpark Subtransmission System obtained from Southern California Edison (SCE);

- Identified and evaluated reasonable feasible alternative locations to the proposed subtransmission line route;

- Identified and evaluated other technologies, if any, that have the potential to avoid or substantially lessen any of the significant effects of the Proposed Project;

- Identified and evaluated whether alternative approaches, such as conservation and demand side management or distributed generation, could provide a reasonable feasible alternative to the Proposed Project; and

- Considered the scenario of not constructing the Proposed Project, i.e., No Project Alternatives 1 and 2.

The Proposed Project is described in Chapter 3, *Project Description*. Proposed Project objectives are presented in Chapter 1, *Introduction*, Section 1.3, and again below in Section 4.2.2. The process used to identify and screen alternatives to the Proposed Project is described in the following sections.

4.2.1 Alternatives Screening Methodology

The screening of alternatives to the Proposed Project was completed using a methodology that consisted of three steps:

Step 1: Clarify the description of each alternative to allow comparative evaluation.

Step 2: Evaluate each alternative using CEQA criteria:

- Does the alternative meet most of the basic objectives of the Proposed Project?

- Is the alternative feasible economically, environmentally, legally, socially, and technically?

- Does the alternative avoid or substantially lessen any significant effects of the Proposed Project (including consideration of whether the alternative could create significant effects potentially greater than those of the Proposed Project)?

Step 3: Determine the suitability of each alternative for full analysis in the EIR. Remove infeasible alternatives and alternatives that clearly offer no potential for overall environmental advantage from further analysis.

4.2.2 Consistency with Proposed Project Objectives

The Applicant's objectives for the Proposed Project are to (SCE, 2013):

- Add 66 kV subtransmission line capacity to meet forecasted electrical demand while providing long-term, safe, and reliable electrical service in the electric needs area (ENA).

- Maintain sufficient voltage at the 66 kV substation buses during normal and abnormal system conditions.

- Provide greater operational flexibility to transfer load between 66 kV subtransmission lines and substations serving the ENA.

- Maintain and improve system reliability within the ENA.

- Utilize existing facilities constructed to date for the project to minimize environmental impacts and shorten the construction schedule.
- Utilize existing ROW and manage existing ROW in a prudent manner in expectation of possible future needs.
- Design and construct the Proposed Project in conformance with SCE's applicable engineering, design, and construction standards for substation, transmission, subtransmission, and distribution system projects.

The CEQA Guidelines require the consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of project objectives" (§15126.6(b)). Therefore, it is not required that each alternative meet all of the project's objectives. The CEQA Team has determined that the following are the basic CEQA objectives:

- Add capacity to meet forecasted electrical demand while providing long-term, safe, and reliable electrical service in the ENA.
- Maintain sufficient voltage in accordance with applicable requirements during normal and abnormal system conditions.
- Maintain system reliability within the ENA.
- Utilize existing ROW and manage existing ROW in a prudent manner in expectation of possible future needs.
- Maintain consistency with the Garamendi Principles passed in Senate Bill (SB) 2431 (Stats. 1988, Ch. 1457) by: (1) using existing ROW by upgrading existing transmission facilities, where technically and economically justifiable; and (2) encouraging the expansion of existing ROW when construction of new transmission lines is required, where technically and economically feasible (CEC, 2007a).
- Maintain consistency with California Public Utility Commission (CPUC) General Order (GO) 95.
- Design and construct the Proposed Project in conformance with SCE's applicable engineering, design, and construction standards for substation, transmission, subtransmission, and distribution system projects.

It should be noted that the CPUC considers the first two CEQA objectives to be the primary purpose for the Proposed Project. SCE would not pursue any alternative that does not accomplish at least these two objectives. Therefore, each project alternative would have to meet at least these two objectives in order to be considered a viable alternative to the Proposed Project.

In order to assess the ability of alternatives to meet forecasted electrical demand and maintain sufficient voltage, the following factors were considered: 10-year planning period demand growth projections; load projections beyond 10 years, based on estimated growth rates for Newbury, Thousand Oaks, and Pharmacy substations; and power flow studies for the Moorpark Subtransmission System. It should be noted that these data were provided to the CPUC in

response to CPUC Data Requests 3 and 4 (SCE, 2014 and 2015a, respectively) under confidential seal because they present critical infrastructure information.

4.2.3 Feasibility

CEQA Guidelines Section 15364 defines "feasible" as:

> *. . . 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 addition, CEQA requires that the Lead Agency consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, jurisdictional boundaries, and the proponent's control over alternative sites in determining the range of alternatives to be evaluated in the EIR (CEQA Guidelines §15126.6(f)).

In assessing the reasonableness and feasibility of alternatives to the Proposed Project, the CPUC consulted with SCE in considering the relevant issues. If an alternative was found not to meet any one of the primary feasibility criteria, it was deemed infeasible without reviewing whether it met the other feasibility criteria. This screening analysis does not focus on relative economic factors or costs of the alternatives (as long as they are found to be potentially economically viable) because CEQA the Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may be more costly (CEQA Guidelines §15126.6(b)).

4.2.4 Potential to Eliminate Significant Environmental Effects

CEQA requires that, to be analyzed fully in an EIR, an alternative must have the potential to "avoid or substantially lessen any of the significant effects of the project" (CEQA Guidelines §15126.6(a)). At the screening stage, it is neither possible, nor legally required, to evaluate all of the impacts of the alternatives in comparison to the Proposed Project with absolute certainty, nor is it possible to quantify impacts. However, it is possible to identify elements of an alternative that are likely to be the sources of impact and to relate them, to the extent possible, to general conditions in the Proposed Project area.

The Proposed Project would potentially result in significant environmental effects to air quality and noise exposure due to short-term construction activities. No other significant impacts that would be associated with the Proposed Project have been identified that cannot be reduced to a less-than-significant level. Based on the methodology described above, each potential alternative was evaluated for its ability to meet most of the basic Proposed Project objectives, its feasibility, and its ability to avoid or substantially lessen one or more of the potential significant effects of the Proposed Project without creating significant unmitigable impacts of its own. **Table 4-1**, *Summary of Preliminary Significant Environmental Impacts of the Proposed Project,* provides a summary of impacts by resource section.

TABLE 4-1
SUMMARY OF SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT

Issue Area	Impact
Air Quality	• Construction activities would generate exhaust emissions that could contribute substantially to a violation of an air quality standard. • Construction activities would result in emissions of nitrogen oxides that would be cumulatively considerable.
Noise	• Construction activities would generate noise levels in unincorporated Ventura County that would exceed Ventura County construction noise threshold criteria. • Construction-related nighttime noise levels would substantially increase ambient noise levels in the cities of Moorpark and Thousand Oaks.

4.3 Summary of Screening Results

Table 4-2, *Summary of alternatives screening analysis for the Moorpark-Newbury 66 kV Subtransmission line Project,* provides a composite list of the six alternatives considered, and the results of the screening analysis with respect to the criteria findings for consistency with Proposed Project objectives, feasibility, and environmental effectiveness. As shown in Table 4-2, none of the alternatives to the Proposed Project passed the screening analysis; therefore, the only alternatives carried forward for analysis in the EIR are No Project Alternatives 1 and 2 (see Sections 4.3.1 and 4.4). The alternatives eliminated from further consideration are discussed in Section 4.3.2.

4.3.1 Alternatives Evaluated in Detail in this EIR

As summarized in Table 4-2, the alternatives screening process did not identify any alternatives that would meet most of the basic Proposed Project objectives, be feasible, and avoid or substantially reduce potential environmental effects of the Proposed Project. The No Project alternatives listed below have been selected for detailed analysis in the EIR, as required by CEQA. The No Project alternatives are described in detail in Section 4.4.

- No Project Alternative 1: Leave Infrastructure in Place; and
- No Project Alternative 2: Infrastructure Removal.

4.3.2 Alternatives Eliminated from EIR Consideration

The alternatives that have been eliminated through the alternative screening process from full analysis in the EIR are listed below. As summarized in Table 4-2, these alternatives have been eliminated due to failure to meet Proposed Project objectives, infeasibility, and/or because the alternative would have greater environmental impacts than the Proposed Project. The rationale for elimination of each alternative is summarized in Table 4-2 and is described in greater detail in Section 4.5.

- Alternative 1 – Reconductoring;

TABLE 4-2
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS FOR THE MOORPARK-NEWBURY 66 KV SUBTRANSMISSION LINE PROJECT

Alternative	Proposed Project Objectives Criteria	Feasibility Criteria	Environmental Criteria
Fails Screening			
Alternative 1 • Reconductor with higher capacity conductors 7.3 miles of the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission line, and 12.6 miles of the Newbury-Thousand Oaks 66 kV Subtransmission Line. • Reconductoring may involve replacement of up to 485 poles. *SCE has not completed an engineering study to determine the number of poles which would require replacement.*	**Fails.** The Moorpark-Newbury tap of the Moorpark-Newbury-Pharmacy line would overload in 2026,[1] and voltage violations are projected at Newbury Substation in 2015.	Meets feasibility criteria.	Unknown. This alternative would result in impacts ranging from slightly less to greater than the Proposed Project with respect to air quality, biological resources, cultural resources, and noise exposure. The level of impact is dependent on the number and location of poles requiring replacement.
Alternative 2 • Locate a portion of the subtransmission alignment to the west and north of the Moorpark-Ormond Beach 220 kV Transmission line ROW. • Option: underground the portion of the subtransmission alignment in the Santa Rosa Valley.	Meets most Proposed Project objectives, but would be inconsistent with CPUC GO 95 pertaining to unnecessary crossings of existing transmission lines. Would not conform to SCE's applicable engineering, design, and construction standards for subtransmission projects.	Overhead subtransmission line option meets feasibility criteria. Underground option is infeasible. Earthquake fault zones and excessively steep terrain render infeasible underground subtransmission installation across Santa Rosa Valley.	**Fails.** Would result in greater impacts to air quality, biological resources, and cultural resources than the Proposed Project because the number of poles and associated foundations installed would be substantially greater than the Proposed Project. Would avoid some short-term construction-related noise exposure impacts that would occur under the Proposed Project, but would generate new significant noise impacts that would not occur under the Proposed Project.
Alternative 3 • Collocate a new 66 kV subtransmission line with the existing Moorpark-Newbury-Pharmacy 66 kV line. • Option: for the portion of the subtransmission alignment on SR 118, put on the south side of the roadway.	Meets most Proposed Project objectives. Routing the line on the south side of SR 118 would be inconsistent with CPUC GO 95 pertaining to circuits occupying both sides of thoroughfares and would not conform to SCE's applicable engineering, design, and construction standards for subtransmission projects.	**Fails.** There is insufficient ROW north of SR 118 to accommodate the required pole structures. The option to put the subtransmission line on the south side of SR 118 would meet feasibility criteria.	**Fails.** Would result in greater impacts to air quality, biological resources, cultural resources, and noise exposure than the Proposed Project because the number of new double-circuit and triple-circuit poles installed would be substantially greater than the number of poles installed under the Proposed Project.

[1] This date is outside the 10-year planning window. The load estimates for beyond the 10-year planning period are based on SCE's projections of 1.6 percent, 0.1 percent, and 1.1 percent growth per year at Newbury Substation, Pharmacy Substation, and Thousand Oaks Substation, respectively, beyond the 10 year planning period (SCE, 2014).

TABLE 4-2 (Continued)
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS FOR THE MOORPARK-NEWBURY 66 KV SUBTRANSMISSION LINE PROJECT

Alternative	Proposed Project Objectives Criteria	Feasibility Criteria	Environmental Criteria
Fails Screening (cont.)			
Alternative 4 • Reconnect the Camgen Generator to the Moorpark Subtransmission System.	**Fails.** Voltage violations are projected at Newbury Substation in 2015.	Unknown. Legal feasibility is uncertain and would require successful easement negotiations and new power purchase agreement with California State University, Channel Islands. Unknown impacts pertaining to the potential for overload conditions in SCE's Santa Clara System.	Meets environmental criteria; would result in reduced impacts to air quality and reduced impacts associated with noise exposure; may result in increased impacts to biological and agricultural resources compared to the Proposed Project.
Alternative 1 combined with Alternative 4 • Reconductor with higher capacity conductors 7.3 miles of the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission line, and 12.6 miles of the Newbury-Thousand Oaks 66 kV Subtransmission Line. • Reconnect the Camgen Generator to the Moorpark Subtransmission System. • Reconductoring may involve replacement of up to 485 poles. *SCE has not completed an engineering study to determine the number of poles which would require replacement.*	**Fails.** The Moorpark-Newbury tap of the Moorpark-Newbury-Pharmacy line would overload in 2026,[2] and voltage violations are projected at Newbury Substations in 2015.	Unknown. Legal feasibility is uncertain; would require successful easement negotiations and new power purchase agreement with California State University, Channel Islands. Unknown impacts pertaining to the potential for overload conditions in SCE's Santa Clara System.	Unknown. This alternative would result in impacts ranging from slightly less to greater than the Proposed Project with respect to air quality, biological resources, cultural resources, and noise exposure. The level of impact will be dependent on the number and location of poles requiring replacement.
Alternative 5 • Replace need for subtransmission lines through implementation of energy conservation programs	**Fails.** Would not serve projected demand or reliability objectives for the Proposed Project.	**Fails.** These programs are not feasible on a scale that would be suitable to replace the Proposed Project within a reasonable period of time.	Meets environmental criteria. Complete avoidance of the Proposed Project would eliminate the potential impacts of the construction, operation, and maintenance of the subtransmission lines, and no new significant impacts would be created.
Alternative 6 • Renewable or distributed energy generation • Provide local sources of electricity	**Fails.** There is limited potential for local renewable resources or distributed generation to meet the projected demand or reliability objectives for the Proposed Project.	**Fails.** Because even local renewable or distributed resources would require upgraded or new subtransmission and transmission infrastructure.	**Fails.** Large scale geothermal, wind, or solar facilities would potentially result in greater environmental impacts for aesthetics, air quality, cultural, and noise, and biological resources, and would occur in addition to the impacts from upgraded or new subtransmission and transmission infrastructure.

[2] This date is outside the 10-year planning window. The load estimates for beyond the 10-year planning period are based on SCE's projections of 1.6 percent, 0.1 percent, and 1.1 percent growth per year at Newbury Substation, Pharmacy Substation, and Thousand Oaks Substation, respectively, beyond the 10 year planning period (SCE, 2014).

- Alternative 2 – West Side of 220 kV ROW and option for Undergrounding;
- Alternative 3 – New 66 kV Line Collocated with the Existing Moorpark-Newbury-Pharmacy 66 kV Line;
- Alternative 4 – Reconnect the Camgen Generator to the Moorpark System;
- Alternative 5 – Demand Side Management; and
- Alternative 6 – Renewable and Distributed Generation Energy Resources.

4.4 Alternatives Evaluated in this EIR

Although no alternatives have been identified that would meet most of the basic Proposed Project objectives, be feasible, and avoid or substantially reduce potential environmental effects of the Proposed Project, CEQA requires an evaluation of a no project alternative so that decision makers can compare the impacts of approving the project with the impacts of not approving the project. According to CEQA Guidelines (§15126.6[e]), a no project alternative must include:

(a) the assumption that conditions at the time of the Notice of Preparation (i.e., baseline environmental conditions) would not be changed since the Proposed Project would not be installed, and

(b) the events or actions that would be reasonably expected to occur in the foreseeable future if the project were not approved.

The first condition is described in the EIR for each environmental discipline as the "environmental baseline," since no impacts of the Proposed Project would be created. This section defines the second condition of reasonably foreseeable actions or events. The impacts of these actions are evaluated in each issue area's analysis in Chapter 5, *Environmental Analysis*. Because some components of the project have already been installed, two No Project scenarios are evaluated in this EIR: No Project Alternative 1, where all previously installed infrastructure associated with the project would remain in place; and No Project Alternative 2, which would include removal of infrastructure previously installed for the project.

4.4.1 No Project Alternative 1

Under No Project Alternative 1, the Proposed Project would not be implemented and none of the Proposed Project objectives would be met, but all of the infrastructure already constructed for the project would remain in place. The ENA would potentially experience a shortage of electricity and the electrical system could become vulnerable to upset. The improved system reliability and operating flexibility associated with the Proposed Project would not occur. Therefore, the system would experience system-wide power flow and reliability problems due to overloading as new demand is added. Such problems would include curtailed generation, thermal overload, and blackouts.

If No Project Alternative 1 is implemented, SCE would implement operating procedures to compensate for the anticipated shortfall in the supply of electric power for the ENA. Operating procedures to relieve base case thermal overloads would include transferring load between the

substations via distribution circuits, load dropping on one or more distribution circuits, or disconnecting entire substations from the Moorpark Subtransmission System. The latter two operating measures would cause extended outages within the ENA until the base case thermal overload conditions could be eliminated.

In addition, SCE would likely be required to implement demand-side management (DSM) programs to reduce customer energy consumption and overall electricity use, including shifting energy use to off-peak periods. The CPUC supervises various DSM programs administered by the regulated utilities, and many municipal electric utilities have their own DSM programs. The combination of these programs constitutes the most ambitious overall approach to reducing electricity demand administered by any state in the nation. However, reducing demand is an essential part of SCE's operations with or without the Proposed Project and is not directly related to the Proposed Project.

4.4.2 No Project Alternative 2 – Infrastructure Removal

Under No Project Alternative 2, the Proposed Project would not be construction and none of the Proposed Project objectives would be met. In addition, the majority of the infrastructure already constructed for the project would be removed. The impacts of these actions are evaluated in each issue area's analysis in Chapter 5, *Environmental Analysis*.

The infrastructure to be removed would include:

- 22 tubular steel poles (TSPs) (pole locations 1-22);
- The base section of the TSP at pole location 23;
- 30 TSP foundations ranging from 17 to 46 feet in depth and with diameters ranging from 6 to 8 feet (pole locations 1-25 and 33-37); and
- The slurry from three foundation holes ranging from 17 to 46 feet in depth and with diameters ranging from 6 to 8 feet (pole locations 29-31).

No Project Alternative 2 would not include removal of the 27 lightweight steel (LWS) poles installed during past construction, or the energized portions of the newly installed Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line conductors currently installed on those LWS poles, as these existing LWS poles currently support the energized conductors for the Moorpark-Newbury-Pharmacy subtransmission line and a distribution circuit. No Project Alternative 2 would include removal of components of the previously installed LWS poles that would not be utilized, such as extra cross arms, extra insulators, and idle conductor. It would be up to SCE to decide whether or not to remove the infrastructure already installed at Moorpark Substation and Newbury Substation as described in Sections 2.3.1 and 2.3.4. The removal of subtransmission line infrastructure is estimated to take approximately 5 months, and would be accomplished as follows:

4.4.2.1 TSP Removal

For each TSP to be removed, an adjacent work area would be required. TSP removal activities would use the existing, previously disturbed work areas established in 2010 and 2011 for TSP installation; these existing work areas would be re-graded and/or cleared of vegetation as required to provide a reasonably level and vegetation-free surface for structure removal. A crane would be positioned near the TSP. A cable from the crane would be attached to the top of the TSP, and then the crane would lift the top section of the TSP from the base section. After removal of the top section, the cable from the crane would be attached to the base section, and the base section would be unbolted from the concrete foundation and removed. The top and base sections would then be loaded on a trailer and taken to a storage site and stored for use on another project or recycling.

4.4.2.2 Foundation Removal

TSP foundation removal would likely involve removing the foundation to approximately 2 feet below the ground surface. However, if requested by the land owner, the entire foundation would be removed. Removal of the TSP foundations would likely be accomplished by breaking the concrete using jack hammers or a concrete breaker mounted on an excavator or similar vehicle. The broken concrete, bolts, and rebar would likely be removed from the foundation hole by an excavator or by hand. After removal, the resulting hole would be filled with soil, compacted, and smoothed to match the surrounding grade. Removed foundation materials would be properly disposed in accordance with applicable laws.

4.4.2.3 Slurry Removal

Slurry removal would likely occur to approximately 2 feet below the ground surface. However, if requested by the land owner, all of the slurry would be removed. The slurry would be broken up using an auger, jack hammers, or a concrete breaker mounted on an excavator or similar vehicle. The broken pieces of slurry would be removed from the foundation hole. After removal of the slurry, the resulting hole would be filled with soil, compacted, and smoothed to match the surrounding grade. Removed slurry would be properly disposed in accordance with applicable laws.

4.5 Alternatives Eliminated from Full EIR Evaluation

4.5.1 Alternative 1 – Reconductoring

4.5.1.1 Description

Alternative 1 would include reconductoring a portion (approximately 7.3 miles) of the existing Moorpark-Newbury tap of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line between Moorpark Substation and Newbury Substation, as well as reconductoring the majority (approximately 12.6 miles) of the Newbury-Thousand Oaks 66 kV Subtransmission Line between Newbury Substation and Thousand Oaks Substation, with higher capacity conductors. See

Figure 4-1, *Alternative 1, Reconductoring*, for an illustration of the Moorpark-Newbury tap and the Newbury-Thousand Oaks line that would be reconductored. Alternative 1 would add approximately 170 A of new 66 kV subtransmission line capacity between Moorpark Substation and Newbury Substation in the Moorpark 66 kV Subtransmission System serving the ENA, which would be sufficient to avoid any projected overloads during normal operating system conditions. In addition, this alternative would temporarily address a forecasted voltage drop in excess of the acceptable five percent limit at Newbury Substation.

The conductors to be replaced are currently supported by approximately 485 poles and towers. SCE has not conducted an engineering study to determine whether any, all, or some poles and towers would need to be replaced to accommodate the new conductor. SCE has indicated that it may be necessary to replace existing 66 kV subtransmission poles and/or towers to accommodate the larger conductors and meet SCE's standards (SCE, 2015a). This alternative would also require the modification of relay protection and substation equipment at Moorpark Substation, Thousand Oaks Substation, and Newbury Substation.

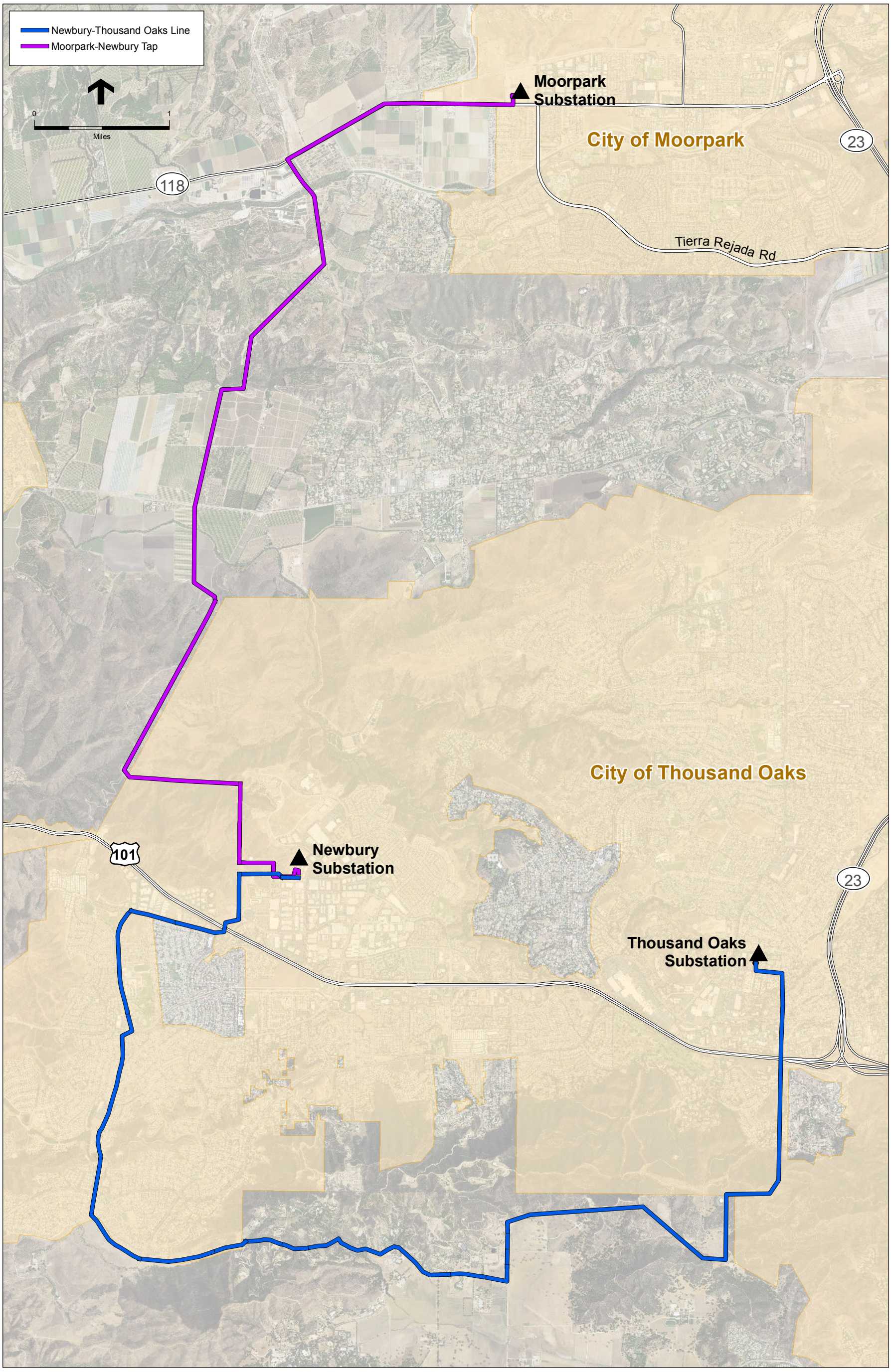
4.5.1.2 Rationale for Elimination

Meeting Proposed Project Objectives

The reconductoring of the subject 66 kV subtransmission lines would increase the normal capacity of the lines by approximately 20 MVA for a total of 125 MVA. Based on power flow analyses conducted for the base case (normal conditions) and contingency cases, it is anticipated that this additional 20 MVA would be sufficient to accommodate future load growth, but Alternative 1 would not address future voltage violations at Newbury and Pharmacy substations. Although Alternative 1 would provide a short-term correction of the exceedance of the 5 percent voltage drop limit for the base case, voltage violations under this alternative are projected to occur starting in 2026[3] under emergency conditions. Analysis indicates a 5.3 percent voltage decrease would occur at Newbury Substation during the loss of the Moorpark-Newbury-Pharmacy line and the Pharmacy Substation load in 2026 (SCE, 2014 and 2015a).

Further analysis indicates that if the Pharmacy load were to be reenergized from the Newbury Substation side (served from Thousand Oaks Substation), the voltage decay at Newbury Substation in 2015 would increase to approximately 9.0 percent (SCE, 2015c). With the assumption that the Pharmacy Substation load would be reenergized, and given the 9.0 percent voltage reduction noted in the 2015 model, voltage violations at Newbury Substation can be expected to occur the first year the alternative would be operational.

[3] SCE prepares load forecasts for its ENAs within a 10-year planning period. Within the Proposed Project area, SCE's most recent report is its 2014-2023 Peak Demand Forecast. Because a Proposed Project objective is to meet long-term (i.e., beyond 10-year) electrical service in the ENA, the analysis in this EIR looks beyond the 10-year planning period. SCE calculated normal and emergency capacities of the existing and potential new conductors beyond 2023 using data from the 2014-2023 Peak Demand Forecast, extrapolating projections beyond 2023 based on growth rates from 2014-2023.



SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 4-1

Alternative 1, Reconductoring

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Alternative 1would not add sufficient capacity to meet forecasted electrical demand in the ENA after 2023 and therefore would not provide a long-term solution to maintaining sufficient voltage during abnormal system conditions. As a result, Alternative 1 is not considered to be a viable alternative to the Proposed Project and has been eliminated from full consideration in this EIR.

Feasibility

Alternative 1 would meet all feasibility criteria.

Environmental Effects

The environmental effects of Alternative 1 are unknown and would be highly variable, depending on the final design and the number of poles and/or towers that would be replaced. As described above, SCE has indicated that Alternative 1 could require replacement of subtransmission poles and/or towers to accommodate the larger conductors and meet SCE's standards (SCE, 2015a). If zero or only a small number of poles or towers required replacement, this alternative would have slightly reduced to similar short-term construction-related impacts (e.g., to air quality, biological resources, cultural resources, and noise exposure) compared to the Proposed Project, which would include replacement of 24 towers/poles.

If Alternative 1 required replacement of a much larger number of poles and/or towers compared to the Proposed Project, it would result in substantially greater short-term construction related impacts, in particular for air quality and biological resources. Site access and construction activities would occur within designated critical habitat for Lyon's pentachaeta and within habitat for the coastal California gnatcatcher, potentially resulting in impacts to these resources. Due to the increased scale of ground disturbance that would be associated with replacement of a substantial amount of the existing poles and/or towers, potential impacts to rare plants would be incrementally greater under this Alternative 1 scenario.

4.5.2 Alternative 2 – West Side of 220 kV ROW

4.5.2.1 Description

Alternative 2 would locate a portion of the new Moorpark-Newbury 66 kV Subtransmission Line on the north and west side of the Moorpark-Ormond Beach 220 kV Transmission Line ROW in Segment 2, instead of on the south and east side of the ROW as would occur under the Proposed Project. In all of the other segments, this alternative would be the same as described for the Proposed Project (SCE, 2013 and 2015a).

Figure 4-2, *Alternative 2, West Side of 220 kV ROW*, shows the alignment of Alternative 2. Just south of State Route 118 (SR 118) the alignment would cross under the existing Moorpark-Ormond Beach Transmission Line to the west side of the transmission alignment. It would parallel the existing transmission line south, west, and southwest for approximately 3.5 miles. Just south of Santa Rosa Road, Alternative 2 would cross under the Moorpark-Ormond Beach Transmission Line to the east side of the transmission line, and would rejoin with the Proposed Project, continuing to

parallel the transmission line on the east side of the corridor heading south. Alternative 2 would require installation of 23 new TSPs along this portion of Segment 2 (SCE, 2014).

Due to suggestions received from the public during the EIR scoping period, the evaluation of Alternative 2 included installing the new 66 kV subtransmission line entirely on overhead poles, and also the option to underground the new subtransmission line in the Santa Rosa Valley portion of the Moorpark-Ormond Beach 220 kV ROW, including the potential for underground perpendicular crossings of the 220 kV transmission line, and/or placing the line underground longitudinally within the 220 kV ROW in the residential areas of Santa Rosa Valley.

4.5.2.2 Rationale for Elimination

Meeting Proposed Project Objectives

Alternative 2 would meet many of the Proposed Project objectives, including adding capacity to meet forecasted electrical demand while providing long-term, safe, and reliable electrical service in the ENA; maintain sufficient voltage in accordance with applicable requirements during normal and abnormal system conditions; and maintaining system reliability within the ENA.

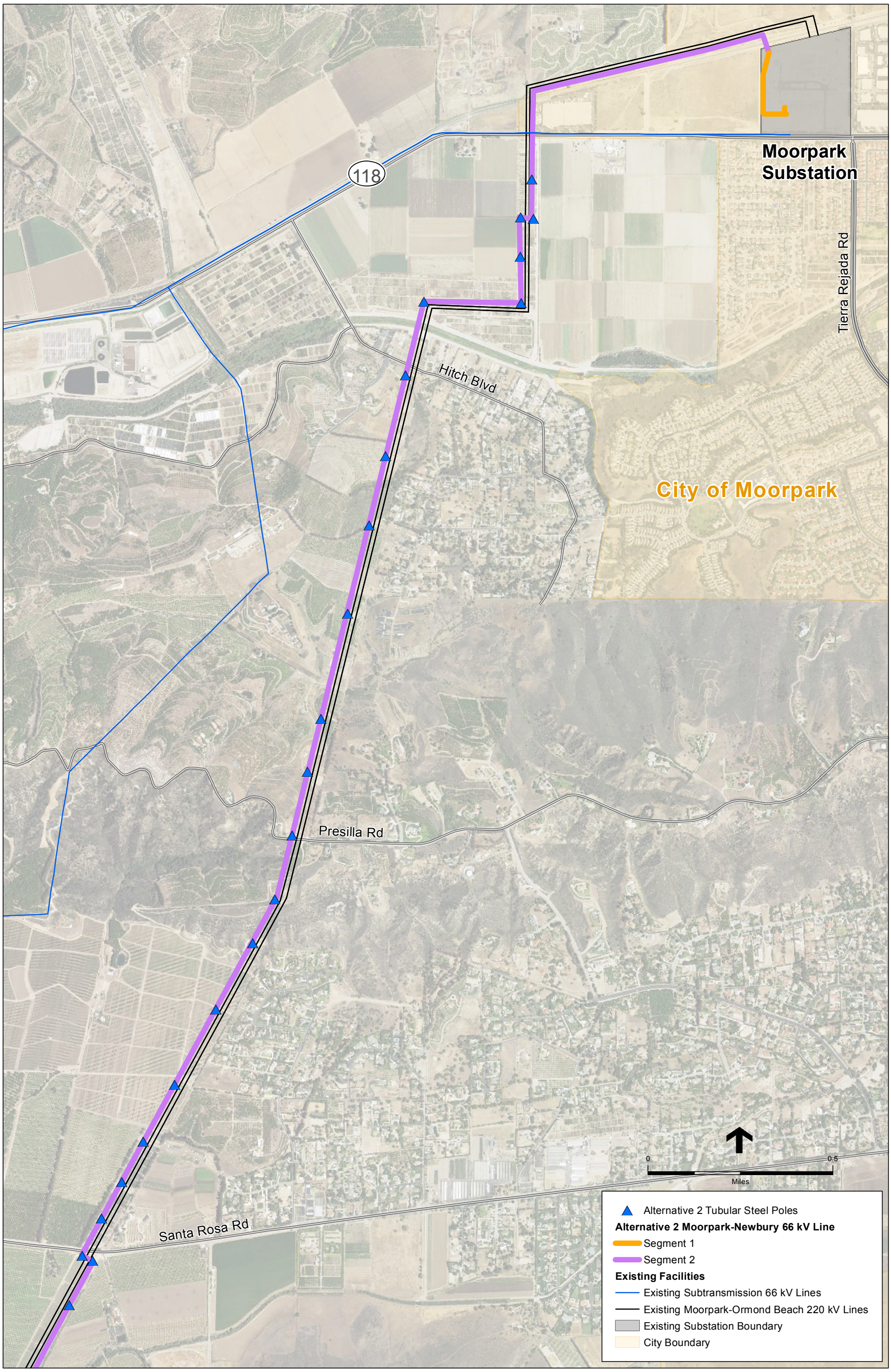
However, the subtransmission alignment under Alternative 2 would cross under existing 220 kV transmission lines twice, resulting in a conflict with CPUC GO 95. Pursuant to CPUC GO 95, Section III, Rule 31.3 (Avoidance of Conflicts and Crossings) “care shall be taken to avoid unnecessary crossings” of existing transmission lines. SCE has also indicated that the transmission line crossings would not conform to its applicable engineering, design, and construction standards for subtransmission projects (SCE, 2014).

In addition, SCE maintains that future infrastructure will eventually be needed in this ROW, and that the presence of infrastructure on both the west and east side of that existing transmission line could effectively block, and preclude the ability for construction of future lines down the west or the east side. SCE has expressed concern that if the ROW were constrained by crossings of a new 66 kV line, this may require the acquisition of additional property to replace the ROW that could be rendered unavailable by the crossings (SCE, 2014).

Feasibility

Alternative 2, with installation of the new 66 kV subtransmission line entirely overhead on poles, would meet all feasibility criteria. If the undergrounding option were selected, the underground portion would fail to meet feasibility criteria as described below.

Challenges regarding earthquake fault zones and steep terrain would render infeasible underground installation of the subtransmission line within Santa Rosa Valley. The ROW crosses the Simi-Santa Rosa Fault, an active Alquist-Priolo Earthquake Fault Zone that perpendicularly traverses the ROW. Constructing an underground subtransmission line in such an area would pose reliability risks. Seismic activity poses a greater risk to underground structures and cable than to overhead construction, as overhead construction provides increased flexibility in the event of displacement across the fault. Overhead structures have less rigidity and have more flexibility



SOURCE: SCE, 2015a

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 4-2

Alternative 2, West Side of 220 kV ROW

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by incorporating slack that enables the conductors to swing and not break when fault activity occurs, and can be located to avoid the surface trace of the fault. In addition, the ROW contains excessively steep topography between pole sites 18 and 20 that would not be suitable for underground subtransmission construction. The weight of the underground cable in steep terrain would require that the cable be held-back with special cable grips in standard transmission vaults and restraint vaults, but for the area south of Presilla Road, cable grip installation would not be feasible because the rise and fall of the grade is too excessive (SCE, 2014). For these reasons, undergrounding the new subtransmission line in the Santa Rosa Valley portion of the Moorpark-Ormond Beach 220 kV ROW would be infeasible.

Environmental Effects

Alternative 2 would require installation of 20 more poles in Segment 2 than the Proposed Project, which would result in a longer construction time and greater impacts pertaining to ground disturbance, which would result in greater impacts to air quality, agricultural resources, biological resources, and cultural resources. Alternative 2 would result in a more severe significant unavoidable impact to air quality compared to the Proposed Project. Short-term construction-related noise exposure would be reduced to some residences along the east side of the 220 kV corridor under this alternative compared to the Proposed Project. In fact, conductor installation activities at the stringing site north-northeast of the intersection of Hitch Boulevard and Ventavo Road would be setback a sufficient distance under Alternative 2 to avoid the significant unavoidable noise impact to the nearest residences that would occur under the Proposed Project. However, this alternative would result in new significant unavoidable construction noise impacts to at least one residence on the west side of the 220 kV corridor off Presilla Road that would not occur under the Proposed Project. This alternative would result in the same significant noise-related impact associated with the helicopter landing zone near the end of Segment 2.

Alternative 2 includes natural habitat in the Los Posas Hills, south of Presilla Road that was not examined during the rare plant surveys that were conducted for the Proposed Project. Rare plants are not present in the comparable portion of the Proposed Project alignment. If rare plants are present in the Los Posas Hills area of the Alternative 2 alignment, impacts could be relatively greater under this alternative compared to the Proposed Project. Potential impacts to wetlands, riparian habitat, or other sensitive natural communities, special-status reptiles, and nesting birds would be similar to that identified for the Proposed Project. Undergrounding could result in additional impacts to agricultural and/or cultural resources.

Alternative 2 is not considered to be a viable alternative because it would result in greater environmental impacts than the Proposed Project. Therefore, Alternative 2 has been eliminated from full consideration in this EIR.

4.5.3 Alternative 3 – New 66 kV Line Collocated with the Existing Moorpark-Newbury-Pharmacy 66 kV Line

4.5.3.1 Description

Alternative 3 would result in the construction of a new subtransmission line circuit collocated with the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line between Moorpark and Newbury substations (see **Figure 4-3**, *Alternative 3, New 66 kV Line Collocated with the Existing Moorpark-Newbury-Pharmacy 66 kV Line*). This alternative would result in the replacement of existing double-circuit wood poles along SR 118 (Los Angeles Avenue) with triple-circuit TSPs, and replacement of single-circuit wood poles with double-circuit LWS poles between SR 118 and the Proposed Project alignment. Under Alternative 3, all work in Segments 3 and 4 would be the same as for the Proposed Project. This alternative would either require a pole for pole replacement, or the new poles could be engineered to have longer spans than the existing double-circuit and single-circuit poles.

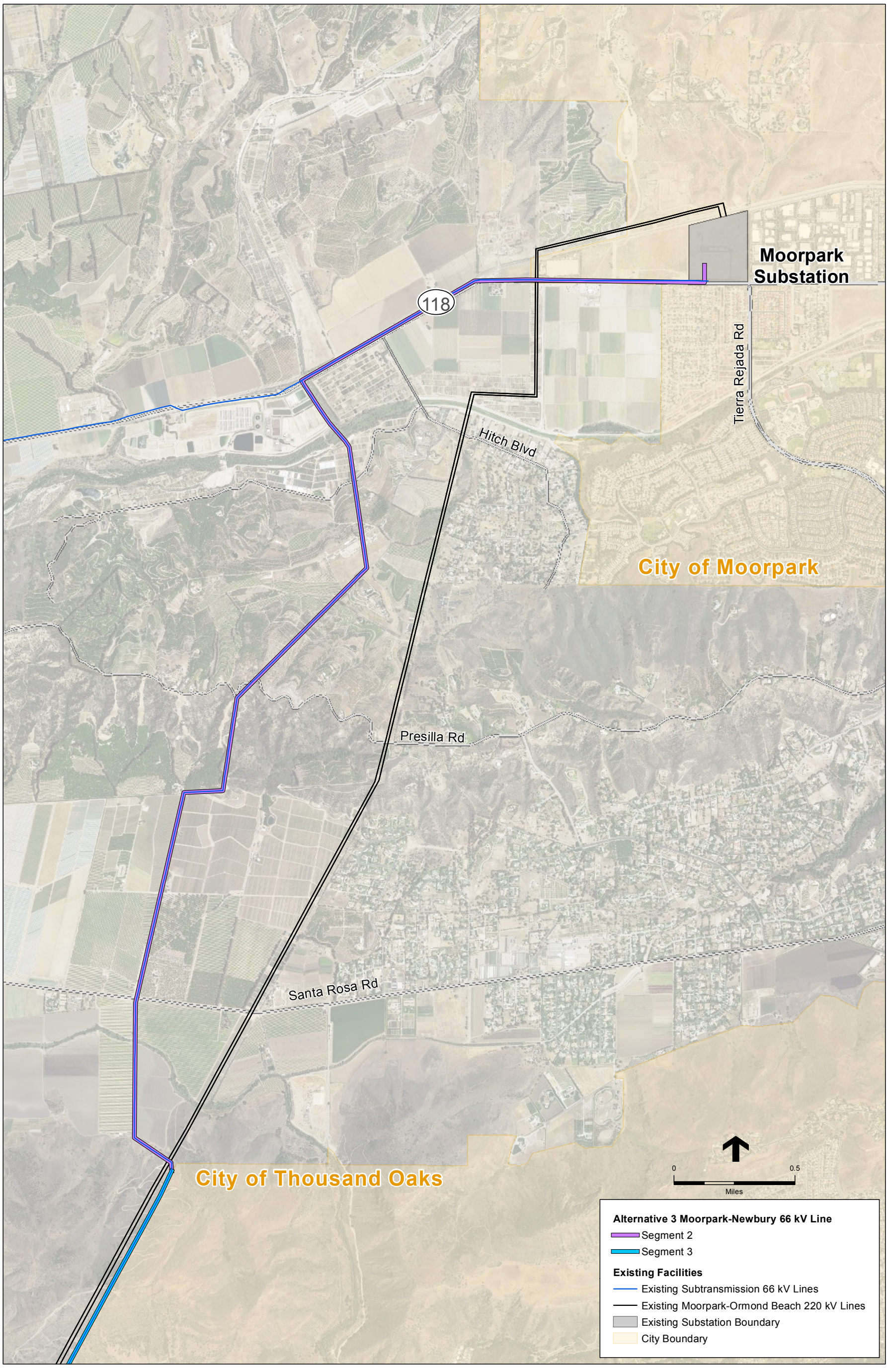
To accommodate the existing two circuits of the Moorpark-Newbury-Pharmacy line along SR 118 and the new subtransmission line, SCE would build a unique TSP structure that could accommodate three circuits in vertical configuration (see **Figure 4-4**, *Conceptual Triple-Circuit 66 kV Structure*). The footprint of such a structure would be significantly larger than the footprint of the existing double-circuit poles. A larger (approximately 65-foot-wide) ROW would be needed to accommodate the new structures compared to the current double-circuit wood poles, which are generally within an approximately 20-foot-wide footprint with the California Department of Transportation (Caltrans) ROW. An option for collocating the new subtransmission line circuit with the existing subtransmission line circuits on the north side of SR 118 would be to locate the new subtransmission line circuit on the south side of SR 118. It is anticipated that the double-circuit LWS poles that would replace the single-circuit wood poles would have a similar appearance to the LWS poles that would be associated with the Proposed Project (see **Figure 3-8**, *Typical Pole Design*).

4.5.3.2 Rationale for Elimination

Meeting Proposed Project Objectives

Alternative 3 would meet many of the Proposed Project objectives, including adding capacity to meet forecasted electrical demand while providing long-term, safe, and reliable electrical service in the ENA; maintain sufficient voltage in accordance with applicable requirements during normal and abnormal system conditions; and maintaining system reliability within the ENA.

Alternative 3 would not maintain consistency with CPUC GO 95 or be designed in conformance with SCE's applicable engineering, design, and construction standards for subtransmission projects. According to SCE, there is insufficient room between the north side of SR 118 and the nearby Union Pacific Railway ROW to accommodate the triple-circuit structures (SCE, 2014). Therefore, implementation of Alternative 3 would require that the new subtransmission line be placed on the south side of SR 118, which would result in subtransmission lines on both sides of



SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 4-3

Alternative 3, New 66kV Subtransmission Line Collocated with the Existing Moorpark-Newbury-Pharmacy 66 kV Line

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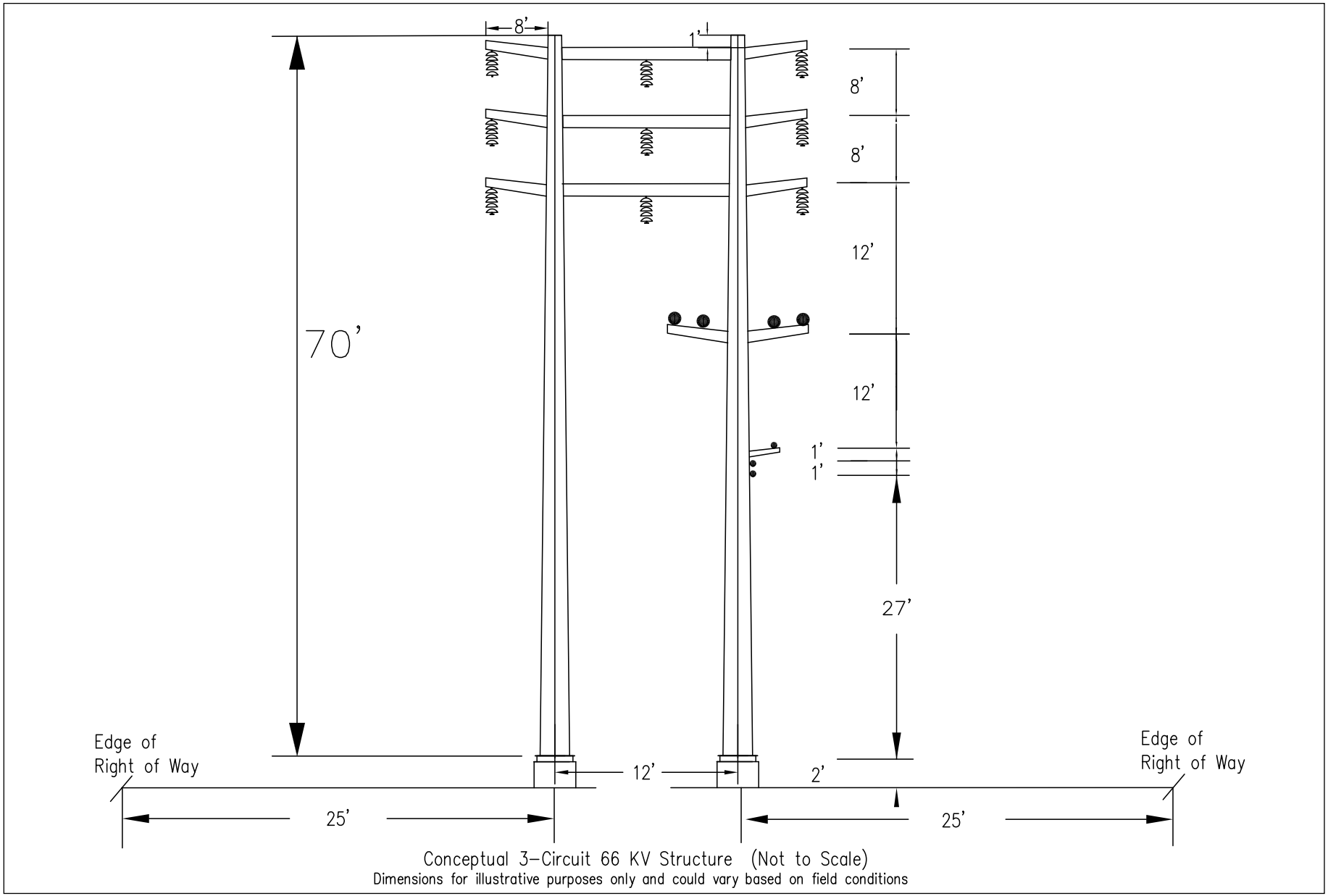

SOURCE: SCE, 2015a

Figure 4-4
Conceptual Tripple-Circuit 66 kV Structure

SR 118. Having subtransmission lines on both sides of SR 118 would be counter to CPUC GO 95, Section III, Rule 31.3, which states: "… circuits shall not occupy both sides of thoroughfares…" (CPUC, 1962) as well as counter to SCE standards for subtransmission line projects.

Feasibility

As discussed above, there is insufficient room on the north side of SR 118 to accommodate the triple-circuit structures that would be required for Alternative 3. Therefore, the Alternative 3 option to locate a triple-circuit line on the north side of SR 118 would not be feasible. Placing a new subtransmission line on the south side of SR 118 would conflict CPUC GO 95, Section III, Rule 31.3, and SCE subtransmission line standards (see *Meeting Proposed Project Objectives* discussion above); however, it appears this option would be feasible.

Environmental Effects

Alternative 3 would require installation of an additional approximately 40 triple-circuit structures and 80 double-circuit LWS poles compared to the Proposed Project, which would result in commensurately longer construction time and greater impacts pertaining to ground disturbance, which would result in greater impacts to air quality, agricultural resources, biological resources, cultural resources, and traffic. The short-term significant construction-related noise exposure impact under the Proposed Project associated with conductor installation activities at the stringing site north-northeast of the intersection of Hitch Boulevard and Ventavo Road would be avoided under this alternative; however, Alternative 3 would result in new significant unavoidable construction noise impacts to several residences along Ventavo Road, Gerry Road, and Rosita Road that would not occur under the Proposed Project. This alternative would result in the same significant noise-related impact as the Proposed Project associated with the helicopter landing zone near the end of Segment 2.

Natural habitat along the Alternative 3 corridor in the Los Posas Hills, south of Presilla Road, was not examined during rare plant surveys for the Proposed Project. Rare plants are not present in the comparable portion of the Proposed Project alignment. If rare plants are present in this area, impacts would likely be greater compared to the Proposed Project. Potential impacts to wetlands, riparian habitat or other sensitive natural communities, special-status reptiles, and nesting birds would be similar to that identified for the Proposed Project. Though the alignment has not be surveyed to identify all biological resources, potential impacts to wetlands, riparian habitat or other sensitive natural communities, special-status reptiles, and nesting birds under Alternative 3 may be similar to that identified for the Proposed Project.

Alternative 3 is not considered to be a viable alternative because it would result in greater environmental impacts than the Proposed Project. Therefore, Alternative 3 has been eliminated from full consideration in this EIR.

4.5.4 Alternative 4 – Reconnect the Camgen Generator to the Moorpark System

4.5.4.1 Description

Alternative 4 would disconnect the Camgen generator on the California State University, Channel Islands (CSUCI) campus from SCE's Santa Clara system and reconnect it to the Moorpark system via the Colonia-Camgen-Newbury Subtransmission line. The potential connection point would begin at a pole outside of Camgen Substation on the CSUCI campus, in the City of Camarillo. As depicted in **Figure 4-5**, *Alternative 4, Reconnect the Camgen Generator to the Moorpark System***,** the alignment would follow an existing 16 kV distribution line south to Potrero Road. The alignment would continue south, crossing Potrero Road, until it reaches the Moorpark-Ormond Beach ROW. From there the subtransmission line would parallel the Moorpark-Ormond Beach 220 kV Transmission Line to the east, and connect into the existing idle section of the Newbury-Thousand Oaks 66 kV Subtransmission Line (SCE, 2015a). The alignment between Camgen Substation and the Newbury-Thousand Oaks 66 kV Subtransmission line would be approximately 2 miles.

The existing 16 kV distribution line that exits Camgen Substation would need to be overbuilt and SCE would need to acquire a new 25-foot transmission easement from the east side of Camgen Substation that would follow the existing distribution line, extending south for approximately 0.3 mile until the route would reach SCE's fee owned parcel where the line would continue (SCE, 2015a). Alternative 4 would also require infrastructure upgrades related to the disconnection of Camgen from the Santa Clara system and reconnection of Camgen to the Moorpark system. Upgrades would include:

- Substation electrical system upgrades, including replacement of electronic equipment, reprogramming of equipment, and testing of substation equipment at Camgen, Newbury and Thousand Oaks substations. In addition, studies such as short-circuit-duty analyses may be required to determine if other equipment such as circuit breakers may require replacement at other substations.
- Telecommunications infrastructure upgrades or replacements at Camgen, Newbury, Moorpark, and Thousand Oaks substations.

4.5.4.2 Rationale for Elimination

Meeting Proposed Project Objectives

Reconnecting Camgen to the Moorpark System would only provide a short-term solution to addressing voltage violations for the base case scenario. With Camgen reconnected to the Moorpark System, SCE anticipates that the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line would be subject to an overload under N-1 (contingency) conditions in the year 2027 (SCE, 2015a). In addition, it is also expected that voltage violations would occur during the first year that this alternative would be operational with the loss of the Moorpark-Newbury line and the reconnection of the Pharmacy Substation load (SCE, 2015c). Accordingly, SCE would still need to have the Proposed Project operational to address this forecasted N-1

SOURCE: SCE, 2015a

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 4-5

Alternative 4, Reconnect the Camgen Generator to the Moorpark System

violation on the Moorpark System. Therefore, Alternative 4 is not considered to be a viable alternative to the Proposed Project and has been eliminated from full consideration in this EIR.

Additionally, SCE has expressed concern that future generation output that will be produced by the Camgen generation facility is uncertain due to the many years of its operation, and may not be sufficient to meet forecasted electrical demand and maintain system reliability in the ENA (SCE, 2014). If Camgen ceased generating power or significantly reduced its output in the future, SCE would be left without the resources to satisfy the peak electrical demand that is forecasted to develop in 2021 on the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line. In such a scenario, SCE electrical customers in and around the ENA would be faced with electrical service interruptions until SCE could construct a satisfactory infrastructure remedy (SCE, 2014). However, due to the level of uncertainty, this was not considered to be the prime factor in determining whether or not this alternative is capable of meeting basic project objectives.

Feasibility

Implementation of Alternative 4 would require successful easement negotiations with CSUCI. In addition, Alternative 4 relies on the assumption that power would be provided from the Camgen generator to the Moorpark System. However, SCE has stated that "Camgen is currently obligated to supply power to SCE only through April 2018, and anything further would have to be pursuant to either an extension of the existing power purchase agreement or execution of a new such agreement between the operator of Camgen and an off-taker" (SCE, 2014). If CSUCI and SCE were to enter into a new contract, SCE has indicated that it would have "no guarantee that the generation output Camgen would be obligated to produce would be sufficient to meet SCE's needs that otherwise would be remedied by the Proposed Project." Camgen's generation facility has been in operation for many years and SCE is not aware of any intention of CSUCI to repower or upgrade that facility in any way. SCE has expressed concern that should the Camgen facility fail without warning, it could be left incapable of meeting electrical demand requirements (SCE, 2014).

In addition, Alternative 4 could result in unacceptable overload conditions in SCE's Santa Clara System. If the generation from Camgen were to be transferred back to the Moorpark System, the generation available to the Santa Clara System would be reduced by approximately 25 megawatts (MW). Currently, the Santa Clara 66 kV System has several generation resources; four of these generators could contribute to a potential overload of the Santa Clara-Colonia 66 kV Subtransmission Line. Each of these four generators (one of which is Camgen) has a contract set to expire before the year 2020. The transfer of Camgen to the Moorpark System would leave the Santa Clara System with three generators that could affect the potential line overload mentioned above. If the power purchase contracts for all three of these generators were not renewed, the Santa Clara-Colonia 66 kV Subtransmission Line is projected to exceed its emergency rated capacity in the year 2021 during an unplanned outage of the Santa Clara-Colonia-Procgen 66 kV Subtransmission Line (N-1 contingency condition). In order to remedy the unacceptable overload condition, SCE would have to take some additional action such as transferring generation from Camgen back to the Santa Clara System or undertaking an infrastructure improvement project such as reconductoring approximately 10 miles of the existing Santa Clara-Colonia 66 kV Subtransmission Line (SCE, 2014).

Due to the uncertainty and the potential to address the above noted concerns through negotiation and power purchase agreements, these issues do not rise to the level of eliminating the alternative based on feasibility. Additional information would be needed for these issues to be the sole rationale for elimination of this alternative, based on feasibility alone.

Environmental Effects

It is estimated that Alternative 4 would require installation of a similar amount of poles (approximately 23 LWS poles) compared to the Proposed Project (22 TSPs and 2 LWS poles); therefore, overall ground disturbance and associated impacts to cultural resources would be similar to that of the Proposed Project. However, this alternative would require much less conductor stringing (i.e., two miles of single-circuit line compared to approximately 8 miles of single- or double-circuit lines under the Proposed Project) and no lattice steel tower (LST) removal, which would result in commensurately shorter construction time and reduced impacts to air quality. This alternative would be located within agricultural fields south of Potrero Road for approximately 1 mile, potentially resulting in increased temporary and permanent impacts to agricultural resources compared to the Proposed Project. It appears that this alternative would not be constructed near any noise-sensitive uses at CSUCI and would therefore not be expected to result in any significant construction-related noise impacts. In addition, the significant construction-related noise exposure impacts under the Proposed Project would be eliminated under Alternative 4.

The majority of the Alternative 4 alignment would follow existing utility ROWs or established roads and crosses active agricultural lands; there would be minimal impact on biological resources in these areas. However, the easternmost approximately 0.5-mile of the alignment would be located within undeveloped mountainous terrain that supports several rare plants (e.g., Blochman's dudleya and Conejo buckwheat) (CDFW, 2015) and potentially provides habitat for coastal California gnatcatcher. If present in this area, Alternative 4 would incrementally increase impacts to these species compared to the Proposed Project. The alignment has not be surveyed to identify all biological resources, though potential impacts to wetlands, riparian habitat, or other sensitive natural communities, special-status reptiles, and nesting birds under Alternative 4 may be similar to those identified for the Proposed Project.

4.5.4.3 Combination of Alternatives 1 and 4 – Reconductoring plus Camgen Reconnection

The CPUC has evaluated the option of combining Alternatives 1 and 4, under which SCE would reconductor 7.3 miles of the existing Moorpark-Newbury tap of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line and 12.6 miles of the Newbury-Thousand Oaks 66 kV Subtransmission Line, and reconnect the Camgen generator to the Moorpark system as described above.

As noted above, reconductoring a portion of the Moorpark-Newbury-Pharmacy line and the Newbury-Thousand Oaks line would provide sufficient line capacity (normal and emergency) going forward, but would not solve long-term voltage violations at Newbury Substation. With the

loss of the Moorpark-Newbury-Pharmacy line and the Pharmacy Substation load, and with the Camgen generator operating, voltage at Newbury Substation would remain within an acceptable range, dropping only 1.9 percent. However, upon reenergizing the Pharmacy load, the voltage at Newbury and Pharmacy substations would plunge, resulting in a total decrease of 6.3 percent for year 2026 compared to pre-outage conditions. Given the relatively slow load growth projected for the area, the 6.3 percent voltage drop noted in SCE's power flow plots for 2026 translates to a voltage loss of slightly more than 5 percent in 2015. This would exceed SCE's limit of a 5 percent drop in voltage, resulting in a voltage violation.

Given that the Moorpark system would continue to be subjected to voltage violations whenever the Pharmacy Substation load is energized from Newbury Substation via the Thousand Oaks subtransmission line, the reconductoring of the existing system and addition of Camgen generation would not provide an adequate solution to meet reliability criteria. Therefore, a combination of Alternative 1 and Alternative 4 would not be a viable alternative and has been eliminated from further evaluation in this EIR.

4.5.5 Alternative 5 – Demand-Side Management

4.5.5.1 Description

Demand-side management (DSM) programs are designed to reduce customer energy consumption. Regulatory requirements dictate that supply-side and demand-side resource options should be considered on an equal basis in a utility's plan to acquire lowest cost resources. One goal of these programs is to reduce overall electricity use. Some programs also attempt to shift such energy use to off-peak periods. The CPUC supervises various DSM programs administered by the regulated utilities, and many municipal electric utilities have their own DSM programs. The combination of these programs constitutes the most ambitious overall approach to reducing electricity demand administered by any state in the nation. Economic and price considerations as well as long-term impacts of state-sponsored conservation efforts, such as the Governors 20/20 rebate program and new appliance efficiency standards, are considered in load forecasts.

4.5.5.2 Rationale for Elimination

Reductions in energy demand through energy conservation and demand management programs will be a part of SCE's future operations and are incorporated into its long-term peak load forecasts. Existing conservation and demand management programs run by SCE include rebates on energy-efficient appliances, incentives for customer-owned solar generation, a metering system that allows SCE customers with smart thermostats and appliances to automatically respond during critical peak pricing and reliability events, and more (SCE, 2015b). However, these programs require voluntary participation. As separate and stand-alone programs, SCE cannot guarantee that such voluntary programs would provide either the capacity or reliability needs in the ENA, as stated in the Proposed Project objectives. For these reasons, this alternative was eliminated from further consideration.

4.5.6 Alternative 6 – Renewable and Distributed Energy Generation Resources

4.5.6.1 Description

Renewable Energy Generation

Executive Order S-14-08 sets California's renewable energy goals at 33 percent by 2020. This requires all retail sellers of electricity to increase their procurement of eligible renewable resources to 33 percent by 2020. This is an increase from California's Renewable Portfolio Standard (RPS) that required retail sellers of electricity to increase their procurement of eligible renewable to 20 percent by 2017. The RPS Program was mandated by Senate Bill 1078 (SB 1078, Sher, Chapter 516, Statutes of 2002) under Public Utilities Code sections 381, 383.5, 399.11 through 399.15, and 445. The CPUC, in collaboration with the California Energy Commission (CEC), is addressing its responsibilities in implementing the RPS through its own proceedings. On March 8, 2003, the CEC and the CPUC approved an Energy Action Plan in addition to the Renewable Portfolio Standard. On April 22, 2004, the CPUC issued an Order Instituting Rulemaking to specifically address the RPS (R.04-04-026). On September 21, 2005, the Energy Action Plan II was finalized, and in February 2008 the CPUC and CEC published the Energy Action Plan 2008 Update. The shared goal of the Energy Action Plan is to:

> *"Ensure that adequate, reliable, and reasonably-priced electrical power and natural gas supplies, including prudent reserves, are achieved and provided through policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers."*

Currently, there are two types of solar generation available: solar thermal power (also known as concentrating solar power) and photovoltaic (PV) power generation. In 2013, California generated approximately 4,291 gigawatt hours (GWh) of power with solar thermal power plants, or 2.2 percent of the state's total electricity production. The majority of solar thermal power facilities are parabolic-trough electric plants installed in the Mojave Desert, due to the large tracks of land required for this technology. In 2008, the most recent year for which CEC has published data, the cumulative installed solar thermal capacity reached about 440 MW, generating an estimated 661.5 gigawatt hours (GWh) of electricity (CEC, 2015). PV power systems are available on a significantly smaller scale, and have received increased support from private and public sections since the 1970s.

In 2013, geothermal energy in California produced 12,485 GWh of electricity (CEC, 2015). Most of California's developed geothermal resources are located in Sonoma, Lake, Imperial, and Inyo counties. Other geothermal resource areas in the state are found in Lassen, Mono, Siskiyou, and Modoc counties. Some of the sites for new geothermal development are located in areas characterized by sensitive cultural and environmental concerns. Other issues that could delay development include permitting and access to transmission. The technologies most often used to produce electricity from geothermal resources in California are flash steam power and binary cycle power plants. The flash steam power technology is typically used at sites that have high

temperature fluids (usually above 400 degrees Fahrenheit). Fluids at these sites boil into steam as they rise to the surface. The steam is used to power a turbine, which turns a generator to produce electricity. Binary cycle power plants can be used with lower temperature geothermal resources where the water does not become steam before rising to the surface.

As of December 10, 2014, the installed capacity of wind energy electricity in California was about 7,100 MW, which produced a total of 12,694 GWh of electricity, or 6.4 percent of the state's total system power (CEC, 2015). According to the Renewable Resources Development Report, Ventura County has limited area with moderate and high wind resources potential (CEC, 2003). However, even in high wind resource areas, wind energy technology requires approximately 5 to 6 acres per MW of wind power. In addition, the primary technical obstacle to utilizing wind generation is the lack of existing transmission infrastructure to transport the wind-generated power to the grid.

Distributed Energy Generation

Distributed generation is electricity production that is on-site or close to the load center that could be interconnected at distribution, subtransmission, or transmission system voltages. Distributed generation is generally limited to systems less than 20 MW. Distributed generation does not include hydroelectricity, geothermal, non-combined heat, or power related digester gas, landfill gas, or electricity produced from municipal solid waste.

In March 2007, the CEC released the staff report *Distributed Generation and Cogeneration Policy Roadmap for California* (CEC, 2007b*).* The report included a vision for distributed generation and cogeneration becoming significant components of California's electrical system, meeting over 25 percent of the total peak demand. To achieve its vision, California will support incentives in the near term, transition to new market mechanisms, and reduce remaining institutional barriers.

4.5.6.2 Rationale for Elimination

Renewable resources for renewable energy programs will be part of SCE's future operations and are incorporated into its long-term peak load forecasts. As separate and stand-alone programs, these renewable resource alternatives would not replace the need for upgrading the existing subtransmission infrastructure in the study area. Indeed, transmission system constraints are noted by the CEC as a substantial impediment to effective integration of renewable resources statewide. However, because renewable resources would not provide the demand, reliability, or operational flexibility needs of SCE, as stated in the objectives for the Proposed Project, and because subtransmission infrastructure upgrades would still be required to integrate any renewable resources, this alternative was eliminated from further consideration.

The distributed generation industry is still a nascent industry that survives despite some difficult market conditions. There are numerous institutional, industry, and market barriers that have impeded the growth and adoption of the industry to date. Although the potential is recognized, it is not currently a significant energy resource. As of 2005, the existing distributed generation

penetration was 2.5 percent of total peak demand in California (CEC, 2007b). Because the potential for and timing of distributed generation within the ENA is uncertain and additional subtransmission infrastructure upgrades would likely still be required, this alternative was not carried forward for analysis.

References – Alternatives

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CHAPTER 5
Environmental Analysis

Introduction to Environmental Analysis

This chapter provides discussion and full public disclosure of the significant environmental impacts of the Proposed Project and alternatives as they relate to the following 18 areas of environmental analysis:

5.1 Aesthetics
5.2 Agriculture and Forestry Resources
5.3 Air Quality
5.4 Biological Resources
5.5 Cultural Resources
5.6 Energy Conservation
5.7 Geology and Soils
5.8 Greenhouse Gas Emissions
5.9 Hazards and Hazardous Materials
5.10 Hydrology and Water Quality
5.11 Land Use and Planning
5.12 Mineral Resources
5.13 Noise
5.14 Population and Housing
5.15 Public Services
5.16 Recreation
5.17 Transportation and Traffic
5.18 Utilities and Service Systems

Analysis within each issue area includes consideration of the components of the Proposed Project as described in Chapter 3, *Project Description*.

Within each of the environmental areas listed above, the discussion of Proposed Project impacts is provided in the following format:

- Setting
- Regulatory Setting (i.e., applicable regulations, plans, and standards)
- Significance Criteria
- Applicant Proposed Measures
- Impacts and Mitigation Measures for the Proposed Project
- Impacts and Mitigation Measures for the Alternatives

The following alternatives are fully analyzed in this EIR (refer to Chapter 4 for a description of each of the alternatives):

- No Project Alternative 1
- No Project Alternative 2

Each environmental issue area analyzed in this document provides background information and describes the environmental setting (baseline conditions) to help the reader understand the conditions that would cause an impact to occur. In addition, each section describes how an impact is determined to be "significant" or "less than significant." Finally, the individual sections recommend mitigation measures, where appropriate, to reduce significant impacts. Throughout Chapter 5, *Environmental Analysis*, both impacts and the corresponding mitigation measures are identified by a bold letter-number designation (e.g., **Impact 5.1-1** and **Mitigation Measure 5.1-1**).

In performing the analysis for this EIR, the EIR preparers relied on available published studies and reports and conducted independent investigations as needed. Information provided by Southern California Edison (SCE) in its application and accompanying environmental documentation was also considered in the EIR analysis after independent review and assessment by the EIR preparers. The specific documents considered and relied upon are cited for each issue area in Sections 5.1, through 5.18.

Environmental Assessment Methodology

Environmental Baseline

The analysis of each issue area begins with an examination of the existing physical setting (baseline conditions as determined pursuant to CEQA Guidelines §15125[a]) that may be affected by the Proposed Project and alternatives. The effects of the Proposed Project and alternatives are defined as changes to the environmental setting that are attributable to project components or operation. Pursuant to CEQA Guidelines Section 15125(a), the environmental setting used to determine the impacts associated with the Proposed Project and alternatives is based on the environmental conditions that existed in the study area in March 2014, at the time the Notice of Preparation (NOP) was published. As discussed in Chapter 2, *Background*, infrastructure installed during SCE's past project-related activities is considered part of the environmental baseline conditions for the Proposed Project described in the environmental settings provided in Sections 5.1 through 5.18 of this chapter.

Impact Significance Criteria

Significance criteria are identified for each environmental issue area. The significance criteria serve as benchmarks for determining if the Proposed Project or alternatives would result in a significant adverse environmental impact when evaluated against the baseline. According to the CEQA Guidelines Section 15382, a significant effect on the environment means "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project."

Applicant Proposed Measures

In the Proponent's Environmental Assessment (SCE, 2013), SCE identified a number of project features that were implemented to avoid or minimize environmental impacts during past construction activities associated with the project. SCE has committed to implementing the same

project features to avoid or reduce potential impacts of the Proposed Project (which they refer to as "future construction activities"). SCE's project features are identified and numbered in this EIR as Applicant Proposed Measures (APMs) because they would be implemented as part of SCE's Proposed Project, and are not considered CPUC "mitigation measures." The consolidated list of APMs are identified in Chapter 3, *Project Description*.

Moreover, the Project Description incorporates procedures or protocols which directly relate to how the Proposed Project would be constructed, and which were considered as part of the Proposed Project during preparation of this EIR. The Project Description, therefore, upon adoption of the Final EIR, becomes part of the Mitigation Monitoring, Reporting and Compliance Program, and the construction components and methods therein would be monitored by the CPUC.

Environmental Consequences

The EIR evaluates the environmental consequences and potential impacts that the Proposed Project and the alternatives would create. The impacts identified were compared with predetermined, specific significance criteria, and were classified according to significance categories listed in each issue area. The same methodology was applied systematically to each alternative. A comparative analysis of the Proposed Project and the alternatives is provided in Chapter 6 of this document.

Impact Analysis

The EIR evaluates the potential environmental impacts that the Proposed Project and alternatives would create. Impacts are classified as:

Class I: Significant; cannot be mitigated to a level that is less than significant;
Class II: Significant; can be mitigated to a level that is less than significant;
Class III: Less than significant, no mitigation required; and
Class IV: Beneficial impact.

When significant impacts are identified, feasible mitigation measures are formulated to eliminate or reduce the intensity of the impacts and focus on the protection of sensitive resources. The effectiveness of a mitigation measure is subsequently determined by evaluating the impact remaining after its application. Those impacts meeting or exceeding the impact significance criteria after mitigation are considered residual impacts that remain significant (Class I). Implementation of more than one mitigation measure may be needed to reduce an impact below a level of significance. The mitigation measures recommended in this document are identified within each issue area section (Sections 5.1 through 5.18) and are presented in the Mitigation Monitoring, Reporting, and Compliance Program in Chapter 10 of this document.

Impacts of Alternatives

Chapter 4 provides a list and description of alternatives to the Proposed Project. Each issue area section (Sections 5.1 through 5.18) presents the impact analysis for each alternative, while

Chapter 6 provides a summary of the collective impacts of each alternative in comparison with the impacts of the Proposed Project.

Cumulative Projects Impact Analysis

The cumulative impacts of the Proposed Project taken together with the related cumulative projects are assessed in Chapter 7, *Cumulative Effects*. Section 7.1 identifies projects considered in the cumulative analysis, and Section 7.2 presents the cumulative effects analysis. The focus in the cumulative impact analysis was to identify those Proposed Project impacts that may or may not be significant when considered alone, but may contribute to a significant impact when viewed in conjunction with past, current, and reasonably foreseeable future projects.

References – Introduction to Environmental Analysis

Southern California Edison (SCE), 2013. Proponent's Environmental Assessment, Moorpark-Newbury 66 kV Subtransmission Line Project, October 28, 2013.

5.1 Aesthetics

This section describes the visual resources in the vicinity of the Proposed Project and alternatives, and the associated regulatory framework. The impact analysis presents the significance criteria used to evaluate impacts on identified resources as a consequence of implementing the Proposed Project or alternatives, the methods used in evaluating these impacts, and the results of the impact assessment based on the applied significance criteria.

5.1.1 Setting

The study area for visual resources encompasses the landscapes directly affected by facilities proposed under the Proposed Project and alternatives and the surrounding areas that would be within view of the Proposed Project components. The visual analysis focuses on travel route views, and parks and recreational views.

Definitions Related to Visual Resources

Visual or aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Depending on the extent to which a project's presence would alter the perceived visual character and quality of the environment, a visual or aesthetic impact may occur.

This analysis of potential visual effects is based on review of a variety of data, including Proposed Project maps and drawings, aerial and ground level photographs of the Proposed Project area, a site visit to the Proposed Project area, and other data in the record, including local planning documents.

Project Viewshed is defined as the general area from which the Proposed Project would be visible or can be seen by the public.

Visual Quality is defined as the overall visual impression or attractiveness of an area as determined by the particular landscape characteristics, including landforms, rock forms, water features, and vegetation patterns. The attributes of variety, vividness, coherence, uniqueness, harmony and pattern contribute to the overall visual quality of an area. For the purposes of this EIR, visual quality is defined according to three levels:

- Indistinctive, or industrial – defined as generally lacking in natural or cultural visual resource amenities typical of the region;
- Representative – defined as visual resources typical or characteristic of the region's natural and/or cultural visual amenities; and
- Distinctive – defined as visual resources that are unique or exemplary of the region's natural or cultural scenic amenities.

Viewer Types and Volumes of use pertain to the types and amounts of use that various land uses receive. Land uses that derive value from the quality of their settings are considered potentially

sensitive to changes in visual setting conditions. Land uses within the study area that may be sensitive to change in visual conditions include major transportation systems such as designated scenic highways, designated scenic roads, and designated park, recreation, and natural areas.

Viewer Exposure addresses the variables that affect viewing conditions from potentially sensitive areas. Viewer exposure considers the following factors:

- landscape visibility (the ability to see the landscape);
- viewing distance (i.e., the proximity of viewers to the Proposed Project) - viewing distances are described according to whether the Proposed Project activities would be viewed within a foreground (within 0.5 mile), middleground (0.5 mile to 5 miles), or background (beyond 5 miles) zone;
- viewing angle – whether the Proposed Project would be viewed from above (superior), below (inferior), or from a level (normal) line of sight;
- extent of visibility – whether the line of sight is open and panoramic to the Proposed Project area or restricted by terrain, vegetation, and/or structures; and
- duration of view.

Visual Sensitivity is the overall measure of an existing landscape's susceptibility to adverse visual changes. This analysis of visual sensitivity is based on the combined factors of visual quality, viewer types and volumes, and visual exposure to the Proposed Project and alternatives. Visual sensitivity is reflected according to high, moderate, and low visual sensitivity ranges, and is a composite measurement of the overall susceptibility of an area or viewer group to adverse visual or aesthetic impacts.

Existing Visual Quality of the Region

The South Coast bioregion, which includes Ventura County and the Proposed Project area, is bounded on the north by the southern end of the Los Padres National Forest, extending approximately 200 miles south to Mexico, east to the Mojave Desert, and west to the Pacific Ocean. Ventura County is densely populated along the coast in the area of the City of Ventura, with suburban and rural residential communities alongside agricultural uses in the valleys, surrounded by forested mountains and grassy rolling hills (CRA, 2014). The visual character of eastern Ventura County is characterized by features typical of the South Coast bioregion including: agricultural lands, rolling hills, canyons, orchards, mixed hardwood forests, sage scrub, chaparral, and grassland intermixed with suburban and rural communities.

The study area is typically semi-urban to rural in character. In the vicinity of the Proposed Project are developed areas including the City of Moorpark in the northern portion of the study area, and the City of Thousand Oaks in the southern portion. Topography in the area is varied, and the landscape is largely characterized by wide valleys bound by rolling hills and mountains. Existing subtransmission and transmission lines, as well as other existing utility structures, are established features within the study area's landscape setting. The agricultural landscape is dominated by crops (primarily citrus, avocados, vegetables, and nursery stock) and other ancillary facilities

including outbuildings, tractors, and irrigation and drainage facilities (Ventura County, 2013). U.S. Route 101, State Route (SR) 118, and Santa Rosa Road run in an east-west orientation, providing major connections between coastal Ventura County and Los Angeles County. SR 23 is the major north-south roadway in the area.

This chapter presents a series of context photographs taken from representative public vantage points in the vicinity of the Proposed Project and alternatives that portray the existing visual character of the area. **Figure 5.1-1**, *Viewpoint Locations and Key Observation Points*, is a viewpoint map that depicts, by photograph numbers, the location and directions from which context photographs were taken. **Figures 5.1-2** through **5.1-4**, *Context Photographs*, present the context photos. The photographs were assigned numbers by order of mention in the following subsections, which describe the existing visual character of the study area by component. The photographs depicting viewsheds are limited in the sense that they provide only several fixed viewpoints and cannot demonstrate all views of or from the Proposed Project sites or along the Proposed Project site's perimeter.

Moorpark Substation and Segment 1

The Proposed Project's Segment 1 would be located entirely within the Moorpark Substation, on the eastern edge of the City of Moorpark. Undeveloped land lies to the north and west, light industrial development lies to the east, and a residential development is located to the south. The visual character of the Moorpark Substation area and Segment 1 is dominated by Southern California Edison (SCE) transmission and substation facilities. The substation facility includes utility infrastructure typical of a 220/66/16 kilovolt (kV) substation, all located within a fenced area. Viewers in this area include motorists on SR 118, which runs adjacent to the substation to the south, and a small number of residents south of SR 118. Views from the surrounding residential area, light industrial area, and SR 118 are generally limited due to screening of the site by surrounding trees on the western, southern, and eastern borders of the substation.

Segment 2

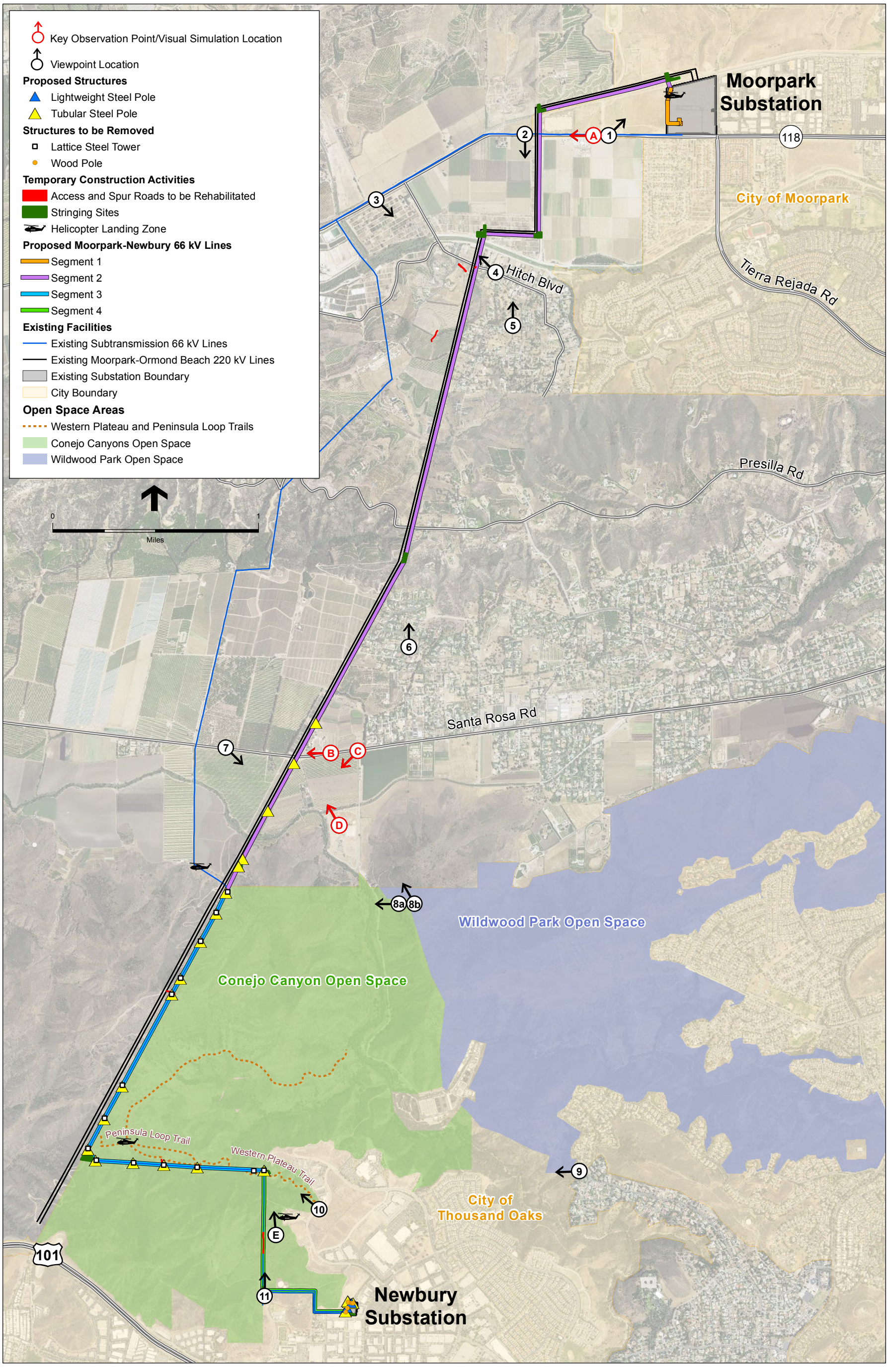
Segment 2 begins at the western fence line of the Moorpark Substation and terminates near the northern boundary of the City of Thousand Oaks. Segment 2 is located entirely within SCE's existing Moorpark-Ormond Beach 220 kV right-of-way (ROW). From the northwest corner of Moorpark Substation, the proposed 66 kV subtransmission line would exit the substation, proceed southwest across open space and agricultural land for approximately 0.6 mile within the City of Moorpark, and then would turn south near Montair Drive. The route would cross SR 118 and continue south and west across unincorporated Ventura County, traversing agricultural land, open space, Arroyo Simi, and Santa Rosa Road. In this area, SR 118 and Santa Rosa Road are two-lane highways.

The visual character of the landscape along Segment 2 includes a mixture of agricultural, industrial, suburban residential, and open space. Existing utility structures (i.e., subtransmission, transmission, distribution, and communication) along and in the vicinity of Segment 2 include wood poles and portal-type towers, tubular steel poles, and lattice towers.

Until Segment 2 reaches Arroyo Simi, the landscape is largely agricultural and industrial, composed of crops, homes/farms, and associated out buildings and infrastructure including farm roads. Foreground views include rolling hills and flat valley bottoms with agricultural crops such as orchards and low-growing crops. Background views are obscured by topography. Viewers in this portion of the Proposed Project area would include motorists along SR 118 and rural residents associated with agriculture. Motorists along SR 118 are accustomed to views of utility infrastructure in this area as there are many existing structures as previously described and as shown in Figure 5.1-2, Photos 1, 2, and 3. Generally, views from SR 118 would include young orchards, field crops, or clusters of trees associated with residential development that would provide open to partially obstructed views of the Proposed Project. Motorists would have open and unobstructed views of the Proposed Project as it crosses SR 118. The visual quality of this viewshed is considered representative, as views from the roadway largely include agricultural lands, residential development, and open space.

Once Segment 2 crosses Arroyo Simi, the landscape becomes more residential in character along the eastern side of the alignment while gently rolling orchards and associated roads and structures characterize the western side of the alignment. Once the alignment begins to leave the valley and climbs in elevation, rolling orchards are on both sides of the alignment. Along the ridgeline of the hill are homes and winding roads of a rural character, separated and screened by orchards. Viewers in this portion of Segment 2 would include motorists along local roads and residents. Motorists along Hitch Boulevard would have an unobstructed view of the Proposed Project as it crosses the road, as shown in Figure 5.1-2, Photo 4. Figure 5.1-3, Photos 5 and 6, also show representative views that residents have of Segment 2. Photo 5 shows the view from Citrus Drive looking north. The existing viewshed includes hills with undeveloped open space in the background, and agricultural lands with associated structures and transmission lines (including the portal-type towers and steel poles) in the middleground. Foreground views include homes and trees. Photo 6 shows the view from Yucca Drive looking north, and shows a suburban residential development and entrance gateway backdropped by undeveloped hills with natural vegetation. Transmission towers are prominent on the ridgeline, including two portal-type towers and one tubular steel pole. Residents and motorists would experience partially obscured to open views of the Proposed Project from this location. The visual quality of this viewshed is considered representative, as views largely include agricultural lands, residential development, and open space.

After Segment 2 traverses the hills and enters Santa Rosa Valley, a suburban residential area is located along the eastern side of the alignment until it reaches Santa Rosa Road. The remainder of the valley is agricultural, with a mix or orchards, low-growing crops, and fallow fields. South of Santa Rosa Road, the alignment follows Rosita Road and then begins to climb another series of hills which include the Conejo Open Space Conservation Agency (COSCA)-managed open space lands. Viewers in this portion of Segment 2 would include motorists along Santa Rosa Road, residents, and recreationalists using the Santa Rosa Park and Conejo Canyons Open Space. Motorists along Santa Rosa Road currently experience views of largely undeveloped hills in the middleground with suburban residential development and agricultural crops in the foreground. Figure 5.1-3, Photo 7, shows the view from Santa Rosa Road near Gerry Road looking southeast towards the Proposed Project alignment. Existing conductor along Santa Rosa Road is prominent in the foreground, along



SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.1-1

Viewpoint Locations and Key Observation Points

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Photo 1: View from SR 118 looking northeast

Photo 2: View from SR 118 near Montair Dr looking south

Photo 3: View from SR 118 near Hitch Boulevard looking southeast

Photo 4: View from Hitch Boulevard looking west

SOURCE: ESA, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

Figure 5.1-2
Context Photographs

Photo 5: View from Citrus Drive looking north

Photo 6: View from Yucca Drive North looking north

Photo 7: View from Santa Rosa Road near Gerry Road looking southeast

Photo 8a: View from Lizard Rock Trail near Hill Canyon Road looking west

SOURCE: ESA, 2013

Figure 5.1-3
Context Photographs

Photo 8b: View from trail near Hill Canyon Road looking northwest

Photo 9: View from Lynnmere Trail looking west

Photo 10: View from Conejo Center Drive near Rancho Conejo Boulevard looking northwest

Photo 11: View from North Wendy Drive looking north

SOURCE: ESA, 2013

Figure 5.1-4
Context Photographs

with agriculture located south of the road. Transmission lines and lattice-type towers are visible along the hills in the middleground, along with hills and open space.

Figure 5.1-3, Photo 8a, shows a northwesterly view from the Canyon Overlook on Lizard Rock Trail in the Wildwood Open Space. Viewers currently experience scenic views of the Santa Rosa Valley and hills beyond, creating a landscape that is made up of a variety of textures, and includes agricultural crops, orchards, roads, scattered buildings, naturally vegetated hillsides, and rugged mountains in the background. Segment 2 would be visible in this viewshed, adjacent to existing portal-type towers and tubular steel poles (TSPs). Motorists and recreationalists would experience partially obscured to open views of the Proposed Project in the distance. The visual quality of this viewshed from Wildwood Open Space is considered representative to distinctive, as views include agricultural areas, buildings, and large areas of undeveloped open space.

Segment 3

Segment 3 extends approximately 3 miles from the southern end of Segment 2, and then south and east to the northern terminus of Segment 4, approximately 0.3 mile west of the intersection of Conejo Center Drive and Rancho Conejo Boulevard. With the exception of approximately 400 feet at its northern end, all of Segment 3 is located in the Wildwood and Conejo Canyons Open Space areas. Segment 3 is within existing SCE ROW that includes steel lattice towers and 220 kV conductors.

The landscape in this area is undeveloped with low-growing natural vegetation and winding trails with expansive views. Viewers of Segment 3 would primarily include recreationalists using the trail system in the Wildwood and Conejo Canyons Open Space areas. Figure 5.1-4, Photo 8b shows a view from the Canyon Overlook on Lizard Rock Trail in the Wildwood Open Space, looking east towards Segment 3 of the Proposed Project alignment. Recreationalists would experience obscured (due to topography) to open views of the Proposed Project. Despite the presence of existing electrical infrastructure, the visual quality of this viewshed is considered distinctive as it includes undeveloped open hills that are exemplary of the region's natural resources.

Segment 4 and Newbury Substation

Segment 4 extends approximately 1 mile from the southern terminus of Segment 3 to the Newbury Substation located off Lawrence Drive in the City of Thousand Oaks. Segment 4 would be constructed entirely within the existing SCE ROW. Before Segment 4 enters Newbury Substation it traverses undeveloped open space land. The Newbury Substation site is currently developed with infrastructure typical of a 66/16 kV substation, with a security fence surrounding the substation, a second perimeter fence that follows the property boundary, and mature trees. The substation is surrounded by light industrial buildings to the east and northeast, open space and light industrial buildings to the south, and open space to the north and west.

The majority of Segment 4 is within undeveloped open space, including the Conejo Canyons Open Space, with the exception of the last 1,200 feet of the alignment before it enters the Newbury Substation at the base of the hill. This final stretch of the alignment and Newbury Substation are located on the western edge of a light industrial area with low 1-story warehouse

style buildings, parking lots, and an assortment of street trees and other manicured landscape plants. Viewers in this area would include recreationalists in the Conejo Canyons Open Space and surrounding trails in Thousand Oaks, residents, employees in the industrial areas, and motorists on local roads.

Figure 5.1-4, Photo 9, shows the viewshed from the perspective of recreationalists using the Lynnmere Trail and surrounding residents. The hills in the background are undeveloped, with the exception of a water tank and the existing subtransmission lines. A suburban residential development is in the middleground portion of the view, with a naturally vegetated canyon in the foreground. Figure 5.1-4, Photo 10, shows the view that recreationalists and motorists have from Conejo Center Drive. The existing viewshed is composed of sage-scrub and chaparral-vegetated rolling hills with diagonal and vertical lines of transmission lines, including wood poles and lattice steel towers, along with the curvilinear lines of roads. The visual quality of this viewshed is considered distinctive, as it includes predominantly panoramic views of rolling hillsides. Figure 5.1-4, Photo 11 shows the view from the northern end of Wendy Drive, where many people access the Conejo Canyons Open Space area. The view is entirely of the foreground, and existing transmission lines and steel poles dominate the view. Recreationalists, residents, and motorists would experience obscured (due to topography) to open views of the Proposed Project. The visual quality of this viewshed is considered representative as it includes undeveloped hills developed with transmission lines abutting a light industrial area.

Viewer Types and Exposures

Viewer types and exposure conditions vary substantially in the study area. Public viewer groups evaluated include: motorists along U.S. 101 (a state eligible scenic highway), SR 118, Santa Rosa Road, and local roads; visitors to the Conejo Canyons Open Space area, Santa Rosa Valley Park, and other open space recreational areas; and neighborhood residents in the City of Moorpark, City of Thousand Oaks, and unincorporated Ventura County.

For each of the viewer groups identified in the study area, viewer exposure conditions were determined based on knowledge of the Proposed Project areas and a site visit conducted on December 11, 2013 (ESA, 2013). Variables considered include the viewing distance, angle of view, the extent to which views are screened or open, and duration of view. Viewing angle and extent of visibility considers the relative location of the Proposed Project facility to the viewer and whether visibility conditions are enclosed or panoramic, or limited by intervening vegetation, structures, or terrain.

Duration of view pertains to the amount of time the Proposed Project facilities or area would typically be seen from a sensitive viewpoint. In general, duration of view would be less in instances where Proposed Project components would be seen for short or intermittent periods (such as from major travel routes and recreation destination roads) and greater in instances where Proposed Project components would be seen regularly and repeatedly (such as from public use areas).

The primary viewpoints used in the analysis include Key Observation Points (KOPs), which have been designated as SR 118, Santa Rosa Road, Santa Rosa Valley Park, and COSCA-managed open

space. Other viewpoints used in the analysis include those from roads in residential areas in unincorporated Ventura County, such as Citrus Drive and Yucca Drive North; major roads such as SR 23; and trails such as the Lizard Rock Trail near Hill Canyon Road, Lynnmere Trail near Calle Yucca, and the trail at the terminus of North Wendy Drive, all in the City of Thousand Oaks. These points are depicted as Viewpoint Locations and Key Observation Points on Figure 5.1-1.

Motorists on Regional or Scenic Travel Routes

In the study area, U.S. 101 and the portion of SR 118 east of SR 23 are eligible for state scenic highway designation. In addition, the portion of SR 118 west of SR 23, Santa Rosa Road, and SR 23 are considered major roadways that provide regional access to the study area. **Table 5.1-1** summarizes major roads in the Proposed Project and alternatives study area. Traffic volumes are classified as low (less than 10,000 vehicle trips per day), moderate (10,000 to 20,000 vehicle trips per day), and high (over 20,000 vehicle trips per day). Because local roadways in the study area generally experience low traffic volumes, they are not evaluated individually in this section. For additional information on local roadways, see Section 5.17, *Transportation and Traffic*.

TABLE 5.1-1
MAJOR ROADS IN PROPOSED PROJECT AREA

State Routes and U.S. Highways	Scenic Status	Relation to Proposed Project and Alternatives	Traffic Volumes
U.S. 101	Eligible State Scenic Highway Eligible Ventura County Scenic Highway City of Thousand Oaks Scenic Route	Proposed Project comes within 0.5 mile of Segment 3 and Segment 4.	High
SR 118	Eligible Ventura County Scenic Highway	Proposed Project crosses once and runs parallel within 600 feet to 1,500 feet for 0.6 mile.	High
SR 23	NA	Proposed Project and Moorpark Substation are 1.6 miles to the west.	High
Santa Rosa Road	NA	Proposed Project crosses once.	Moderate

NA = not applicable

SOURCE: Caltrans, 2009

For additional descriptions of the scenic status of roads in the study area, see *Regulatory Setting*, below. For additional information on traffic volumes and major road descriptions, see Section 5.17, *Transportation and Traffic.*

U.S. Highway 101

The Proposed Project would be within foreground and middleground views from U.S. 101. Views from U.S. 101 in the vicinity of the study area are typically in an enclosed landscape due to the development of commercial, suburban residential areas, and trees in the foreground. However, gaps between buildings and vegetation provide glimpses to the typically undeveloped hills in the background. In addition, the ridgeline of the surrounding hills defines the horizon and can be viewed

beyond development in the foreground. Views of the Proposed Project would range from fully to partially obscured, and would only be visible for a brief period of time due to high traffic speeds.

State Route 118

The Proposed Project alignment would be within foreground views from SR 118, where the proposed alignment would cross the highway. Views from SR 118 in the vicinity of the Proposed Project include agricultural, light industrial, and suburban residential developments. See the description for Segment 1 and views from SR 118 in the *Existing Visual Quality of the Region* discussion, above.

State Route 23

The Proposed Project alignment would be within middleground to background views from SR 23. However, views of the Proposed Project would be fully to partially obscured by buildings, trees, and terrain. In addition, as shown in Table 5.1-1, the Proposed Project would be at a distance that would make it not easily discerned from its surroundings of existing industrial and residential development.

Santa Rosa Road

The Proposed Project alignment would be within foreground views from Santa Rosa Road, where the proposed alignment would cross the highway. Views from Santa Rosa Road in the vicinity of the Proposed Project would be of agricultural lands and suburban residential developments. See the description for Segment 2 and views from Santa Rosa Road in the *Existing Visual Quality of the Region* discussion, above.

Park and Recreation Areas

Open Space Areas

Two designated open space areas are located in the study area, both managed by COSCA.

Conejo Canyons Open Space is a system of deeply eroded canyons, plateaus, and ridgelines in the northwest portion of the Conejo Valley. This area totals 1,628 acres. It is bordered on the north and west by the City of Thousand Oaks, on the east by Hill Canyon Road, and on the south by industrial uses. On clear days, trails in this area afford panoramic views of Ventura and the coastline, as well as inland to the Topa Topa mountains north of Ojai. Most of this area is owned by the City of Thousand Oaks (City of Thousand Oaks, 2014). A neighborhood trail through the Conejo Canyons Open Space is accessible at two points near Wendy Drive (COSCA, 2006). As depicted in Figures 5.1-1 and 5.1-4 (Photo 11), recreational viewers in this area would have foreground views of the Proposed Project. People visiting the open space include hikers, bikers, horseback riders, students, and educators. The duration of viewer exposure would be moderate, as recreationalists would have fleeting but frequent views of Proposed Project components, as they traveled along trails.

Wildwood Park Open Space comprises the largest contiguous open space unit in Thousand Oaks. This area totals 1,732 acres. Trails provide access to most parts of Wildwood Park, and several picnic areas are located near Wildwood Creek. Most of Wildwood Park is owned by the Conejo

Recreation and Park District, with lesser amounts owned by COSCA (COSCA, 2013). The Canyon Overlook on the Lizard Rock Trail is the only area in the open space that the Proposed Project would be visible from. As depicted in Figure 5.1-3 (Photo 8a) and Figure 5.1-4 (Photo 8b), recreational viewers, including hikers using trails that traverse the open space, would have foreground to middleground views of the Proposed Project alignment. Photo 8a shows views of the Santa Rosa Valley and hills beyond, creating a landscape that is made up of a variety of textures, including agricultural crops, orchards, roads, scattered buildings, naturally vegetated hillsides, and rugged mountains in the background. Photo 8b shows a typical view of the alignment within the open space area that viewers at this portion of the trail would experience. Views would range from panoramic at high elevations to obscured at lower to mid-elevations due to intervening terrain. People visiting the open space include hikers, bikers, horseback riders, students, and educators.

Santa Rosa Valley Park

Santa Rosa Valley Park, a 50-acre property owned by Ventura County, is located approximately 0.25 mile east of the Proposed Project. The park offers 50 acres of natural open space that is suitable for horseback riding, hiking, and picnicking. Two equestrian riding areas are available (Ventura County, 2015). Recreational users would have panoramic to partially obscured views of the Proposed Project within a foreground/middleground distance, due to intervening buildings and vegetation.

Visual Sensitivity

Visual sensitivity is a composite measurement of the overall susceptibility of an area or viewer group to adverse visual or aesthetic impacts, given the combined factors of landscape visual quality, viewer types, and exposure conditions. **Table 5.1-2**, *Summary of Visual Sensitivity Findings Viewer Types, Visual Exposures, and Visual Quality*, summarizes the visual sensitivity of the major viewer types that would be affected by the Proposed Project and alternatives.

Regulatory Setting

State

California Scenic Highway Program

In 1963, the California legislature created the Scenic Highway Program to protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to the highways. The state regulations and guidelines governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. A highway may be designated as "scenic" depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the travelers' enjoyment of the view.

No portion of the Proposed Project or alternatives would be visible from a designated State Scenic Highway; however, as noted above, portions of the Proposed Project would be visible from U.S. 101 which is listed by the California Department of Transportation (Caltrans) as an Eligible State Scenic Highway in Ventura County. SR 118 is listed as an Eligible State Scenic Highway between SR 23 and the eastern Ventura County border, approximately 2 miles east of the Proposed Project area (Caltrans, 2009).

TABLE 5.1-2
SUMMARY OF VISUAL SENSITIVITY FINDINGS
VIEWER TYPES, VISUAL EXPOSURES, AND VISUAL QUALITY

Viewer Type	Visual Quality	View Exposure	Visual Sensitivity	Visible Proposed Project Component(s)
Travel Routes				
U.S. 101	Representative	Foreground/Middleground Distance Obstructed Views High Number of Viewers Low View Duration	Low-moderate	Segments 3 and 4
State Route 118	Representative	Foreground Distance Unobstructed Views High Number of Viewers Low View Duration	Moderate-High	Moorpark Substation/Segment1, and Segment 2
State Route 23	Representative	Middleground/Background Distance Obstructed Views High Number of Viewers Low View Duration	Low	Segment 2
Santa Rosa Road	Representative	Foreground Distance Unobstructed Views Low Number of Viewers Low View Duration	Moderate	Segment 2
Park/Recreation				
Conejo Canyons Open Space	Distinct	Fore, Middle, and Background Distances Obstructed to Unobstructed Views Moderate Number of Viewers Moderate View Duration	High	Segments 2, 3, and 4, and Newbury Substation (Segment 3 and 4 are within the open space area)
Wildwood Park Open Space	Distinct	Fore, Middle, and Background Distances Partially Obstructed Views Moderate Number of Viewers Moderate View Duration	High	Segments 2 and 3
Santa Rosa Valley Park	Distinct/ Representative	Foreground Distance Obstructed to Unobstructed Views Moderate Number of Viewers Moderate View Duration	High	Segment 2

Local

CPUC General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project. However, CPUC staff considered the following policies identified in local General Plans to identify visual resources and inform the determination of significance thresholds in the study area:

Ventura County General Plan

The following goals and policies identified in the Ventura County General Plan pertain to scenic resources (Ventura County, various dates):

> *Goal 1.7.1-1:* Preserve and protect the significant open views and visual resources of the County.

Goal 1.7.1-2: Protect the visual resources within the viewshed of lakes and State and County designated scenic highways, and other scenic areas as may be identified by an area plan.

Goal 1.7.1-3: Enhance and maintain the visual appearance of buildings and developments.

Policy 1.7.2-1: Notwithstanding Policy 1.7.2-2, discretionary development which would significantly degrade visual resources or significantly alter or obscure public views of visual resources shall be prohibited unless no feasible mitigation measures are available and the decision-making body determines there are overriding considerations.

Policy 1.7.2-4: The Planning Division shall continue to implement the landscaping requirements of the Zoning Ordinance and the "Guide to Landscape Plans" to enhance the appearance of discretionary development.

Ventura County has designated Scenic Resource Areas with specific scenic resource policies, which include the areas around Lake Sherwood, Lake Piru, Lake Casistas, and Matilija Lake; all of these locations are outside of the Proposed Project viewshed.

The General Plan further deems as Scenic Resource Areas (1) the areas within 0.5 mile of adopted County or State Scenic Highways designated as Open Space, Agricultural, or Rural; and (2) the parcels that are contiguous to an adopted County or State Scenic Highway that are designated Urban, Existing, Community, or State and Federal Facilities. There are no designated County or State Scenic Highways within the viewshed of the Proposed Project. Eligible County Scenic Highways include U.S. 101 and SR 118, which are within the viewshed of the Proposed Project. U.S. 101 is located approximately 0.5 mile south of the Proposed Project, and the Proposed Project crosses SR 118.

City of Moorpark General Plan

The following goals and policies identified in the City of Moorpark General Plan pertain to scenic resources (City of Moorpark, 1986):

Goal 1: Preserve and enhance the unique aesthetic and visual qualities of Moorpark as a city with scenic topographic features and elements that promote the quality of life that Moorpark citizens pursue.

Policy 1.1: Protect the scenic viewsheds both to and from the City of Moorpark. This shall include those views extending north to the Santa Susana Mountains and south to Tierra Rejada Valley. This would extend to any new development and to any future renovations and additions that may potentially obscure a viewshed.

Policy 1.2: Study, monitor, and link the existing Greenbelt Agreement Area to include landscape arterial roadways as entrance ways to the City, bikeways, equestrian paths and hiking trails, to create a network of aesthetically pleasing links into and around the City.

Policy 1.4: Develop a hillside conservation, preservation, and management program that functions to discourage ridgeline development and/or alteration.

Policy 1.5: Explore with SCE and local utilities the potential to underground existing above-ground lines.

Scenic corridors identified in the City of Moorpark General Plan, which are in the vicinity of the Proposed Project, would not have views of the Proposed Project area.

The plan also states that the views of the mountain ranges to the north and open space lands to the south and west are important scenic resources that the City has to offer, worth maintaining and preserving.

City of Thousand Oaks General Plan

The following policies identified in the City of Thousand Oaks General Plan pertain to scenic resources (City of Thousand Oaks, 2001):

> **Scenic Highways Element**
>
> *Goal:* To identify, establish, preserve, and enhance a system of scenic highways within the City of Thousand Oaks.
>
> *Policy 1:* Designate a variety of scenic highways within the City in order to give the motorist a variety of different urban and semi-rural geographical settings of unique scenic value.
>
> *Policy 5:* Prevent the removal of mature trees without proper consideration of their scenic or historic value.
>
> *Policy 9:* Coordinate program for undergrounding utility lines with the achievement of scenic corridors.
>
> *Policy 10:* Coordinate with Ventura County to insure compatibility with the development of a County-wide Scenic Highway System.

U.S. 101 is listed as a City Scenic Highway, and is located 0.5 mile south of the Proposed Project. As discussed above, U.S. 101 would provide fleeting views of the Proposed Project.

> **Open Space Element**
>
> *Policy OS-25:* Facilities necessary to serve visitors, such as trails, trailheads, access roads and parking lots, kiosks, restrooms, signage shall be designed and installed so as to have no impact on sensitive natural resources within the open space area, and minimal impact on non-sensitive resources. Where emergency facilities or public service and utility facilities must be located in a natural open space area, they and any necessary access roads shall be located and designed to minimize impacts.
>
> *Policy OS-30:* Continue to work with utility companies and agencies, and the Ventura County Flood Control District to accommodate utility lines and flood control facilities where such improvements are necessary for public health and safety, while minimizing disturbance to open space resources.

City of Thousand Oaks Zoning Ordinance

The City of Thousand Oaks Zoning Ordinance uses overlay zones to protect particular natural or cultural features, including scenic views. Overlay zones build on the underlying zoning by establishing supplemental or stricter standards and criteria that apply in addition to the standards of

the underlying zone districts. The City of Thousand Oaks is bounded by prominent natural land forms and knolls including, but not limited to, the Santa Monica Mountains, the Conejo Mountain, the Mount Clef Ridge, and the Conejo Ridge. The *Protected Ridgeline Overlay District* (*PR*) promotes the preservation of natural views and open space in the district with regulations to preserve natural lands forms, maintain and preserve open space, and protect the scenic backdrop to the City's major roadways (City of Thousand Oaks, 2009). Segments 2, 3, and 4 of the Proposed Project would traverse parcels zoned *PR*. The following subsections would have implications for visual resources:

Section 9-4.3502. Protected ridgeline development standards

(a) Within the Protected Ridgeline Overlay Zone, no new structure or addition to an existing structure shall be placed or constructed, no grading shall occur and, except as to meet fire clearance requirements, no native vegetation shall be removed within three hundred (300') feet horizontally or one hundred (100') feet vertically of the crest of a protected ridgeline. However, if because of the limited size of a parcel, the topography or other physical site constraints there is no suitable location for the addition to an existing structure or the development of one single family detached home on residential zoned parcel or a viable use on a commercial or industrial zoned parcel, minor encroachments into this area or development on the parcel may be authorized by the Planning Commission consistent with subsection (b) of this section. No subdivision map shall be approved creating a parcel or a lot within three hundred (300') feet horizontally or one hundred (100') feet vertically of the crest of a protected ridgeline, unless all development and grading activity on said parcel(s) or lot(s) is prohibited, or limited to antennae, open space uses, water reservoirs or similar uses of benefit to the general public.

(b) If, because of the parcel's limited size or other physical or topographic constraints, development, grading or clearance of native vegetation can only occur within the restricted area of a Protected Ridgeline Overlay Zone the following development standards shall apply:

1) Any structure shall be located on the portions of the parcel which are least visible from roadways depicted on the Circulation Element of the General Plan and existing developed areas.

2) No structure shall be placed or constructed in such a way that it silhouettes against the skyline above the ridgeline when viewed from any roadway depicted on the Circulation Element of the General Plan.

3) No grading or berming shall occur which alters the natural contours or changes the elevation of the crest of the ridgeline in order to create a pad.

4) All buildings shall be low profile. No residential structure shall be higher than seventeen (17') feet measured from the finished grade at the center of the building wall to the highest roof elevation and any new dwelling unit, including any garage and accessory structures, shall not exceed, in total, two thousand (2,000) square feet. For existing structures, no alteration or addition to that structure shall raise the height or the elevation of the existing roof.

5) All buildings shall be setback at least fifty (50') feet from the edge of the finished pad.

6) Berms, rounded contour grading and landscaping shall be used when necessary to soften the visual impacts created by structures and grading.

7) The grading, design, construction, vegetation clearance, landscaping and development shall sensitively conform to and fit into the natural terrain through creative development techniques, such as, but not limited to, split-level designs, terracing, use of native plant types, and natural blending architectural features (such as the angle of the roof line appearing as an extension of the adjacent downslope).

8) Only low profile shaded street lighting, if needed, shall be used to reduce down slope light spillover and night glare.

Conejo Open Space Conservation Agency

COSCA was created in 1977 as a joint powers agency between the City of Thousand Oaks and the Conejo Recreation and Park District for the purpose of acquiring and managing natural open specs within and around the Conejo Valley. The Joint Powers Agreement (JPA) forming COSCA enables the two agencies to (COSCA, 2013):

> "jointly exercise their legal powers to create a jurisdictional framework for the conservation of natural open space lands, assure coordination of local land use and resource management decisions and establish an entity to focus community resources toward achievement of adopted City General Plan goals."

COSCA manages more than 12,000 acres of open space lands and 140 miles of trails. In 2011, the COSCA Board of Directors authorized the preparation of a long-range strategic plan, which includes goals and objectives adopted in 1989 through the COSCA Management Policies and Guidelines. The plan generally outlines goals regarding the preservation and protection of existing and proposed parklands, recreation areas, and other designated open space lands (COSCA, 2013). The Proposed Project would run along the western side of the Conejo Canyons open space area (City of Thousand Oaks, 2014). The Proposed Project would also be visible from the Canyon Overlook along the Lizard Rock Trail (COSF, 2005).

5.1.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant aesthetic effects on the environment if it 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) Substantially degrade the existing visual character or quality of the site and its surroundings; or

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Definition and Use of Significance Criteria

An adverse visual impact may occur when: (1) an action perceptibly changes the existing physical features of the landscape that are characteristic of the region or locale; (2) an action introduces new features to the physical landscape that are perceptibly uncharacteristic of the region or locale, or become visually dominant in the viewshed; or (3) an action blocks or totally obscures aesthetic features of the landscape. The degree of visual impact depends on how noticeable the adverse change is. The noticeability of a visual impact is a function of a project's features, context, and viewing conditions (angle of view, distance, and primary viewing directions). The key factors in determining the degree of visual change are visual contrast, project dominance, and view blockage.

Visual Contrast

Visual contrast is a measure of the degree of change in line, form, color, and texture that a project would create, when compared to the existing landscape. Visual contrast ranges from none to strong, and is defined as:

- **None** –The element contrast is not visible or perceived;
- **Weak** –The element contrast can be seen but does not attract attention;
- **Moderate** –The element contrast begins to attract attention and begins to dominate the characteristic landscape; and
- **Strong** – The element contrast demands the viewer's attention and cannot be overlooked.

Project Dominance

Visual dominance is a measure of a project feature's apparent size relative to other visible landscape features in the viewshed, or seen area. A feature's dominance is affected by its relative location in the viewshed and the distance between the viewer and feature. The level of dominance can range from subordinate to dominant.

View Blockage or Impairment

View blockage or impairment is a measure of the degree to which a project's features would obstruct or block views to aesthetic features due to its position and/or scale. Blockage of aesthetic landscape features or views can cause adverse visual impacts, particularly in instances where scenic or view orientations are important to the use, value, or function of the land use.

Overall Adverse Visual Impact

Overall adverse visual impact reflects the composite visual changes to both the directly affected landscape and from sensitive viewing locations. The visual impact levels referenced in this EIR indicate the relative degree of overall change to the visual environment that the Proposed Project and alternatives would create, considering visual sensitivity, visual contrast, view blockage, and project dominance.

In general, the determination of impact significance is based on combined factors of Visual Sensitivity and the degree of Visual Change that the Proposed Project or alternative would cause. **Table 5.1-3**, *Guidelines for Determining Adverse Visual Impact Significance***,** shows how the inter-relationship of these two overall factors determines whether adverse visual impacts are significant.

TABLE 5.1-3
GUIDELINES FOR DETERMINING ADVERSE VISUAL IMPACT SIGNIFICANCE

	Overall Visual Change				
Overall Visual Sensitivity	**Low**	**Low to Moderate**	**Moderate**	**Moderate to High**	**High**
Low	Not Significant	Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant
Low to Moderate	Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant
Moderate	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant
Moderate to High	Adverse, but Not Significant	Adverse, but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant	Significant
High	Adverse, but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant	Significant	Significant

Not Significant impacts may or may not be perceptible but are considered minor in the context of existing landscape characteristics and view opportunity.
Adverse but Not Significant Impacts are perceived as negative but do not exceed environmental thresholds.
Adverse and Potentially Significant Impacts are perceived as negative and may exceed environmental thresholds depending on project- and site-specific circumstances.
Significant impacts with feasible mitigation may be reduced to less-than-significant levels or avoided altogether. Without mitigation or avoidance measures, significant impacts would exceed environmental thresholds.

Visual Simulations

Visual simulations, presented as part of this aesthetic analysis, illustrate representative "before" and "after" visual conditions in the Proposed Project area. In the text below, the evaluation of potential impacts associated with the Proposed Project is based, in part, on comparing the "before" and "after" visual conditions as portrayed in the set of simulations and assessing the degree of visual change that the Proposed Project would bring about. The significance determination is based on the evaluation criteria described above.

The simulations presented in this section illustrate the location, scale, and conceptual appearance of the Proposed Project as seen from five key viewing locations. The set of images shows views from various places along the Proposed Project alignment, including Segments 2 through 4. Figure 5.1-1 depicts the simulation photo viewpoint locations for the visual simulations in **Figures 5.1-5** through **5.1-9**.

Existing view from SR 118 looking west

Simulated view from SR 118 looking west

SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

Figure 5.1-5

Visual Simulation A - State Route 118

Existing view from Santa Rosa Road looking west

Simulated view from Santa Rosa Road looking west

SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

Figure 5.1-6

Visual Simulation B - Santa Rosa Road

Existing view from Santa Rosa Road looking southwest

Simulated view from Santa Rosa Road looking southwest

SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

Figure 5.1-7

Visual Simulation C - Santa Rosa Road

Existing view from Santa Rosa Valley Park looking northwest

Simulated view from Santa Rosa Valley Park looking northwest

SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

Figure 5.1-8

Visual Simulation D - Santa Rosa Valley Park

Existing View from COSCA-managed open space looking north

Simulated View from COSCA-managed open space looking north

SOURCE: PG&E, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

Figure 5.1-9

Visual Simulation E - COSCA-Managed Open Space

These visual simulations are presented in color, two images per page with the existing visual condition photograph on top of the page and with a photo rendering visual simulation depicting the Proposed Project on the bottom of the page. These images were photographed in November of 2012 using a single lens reflex (SLR) camera. All of the images use a 50mm lens, which represents a horizontal view angle of 40 degrees, which is the "normal" field of view for the average human observer. The visual simulations of the Proposed Project portray representative public views. The simulation vantage points are as follows:

A. View from SR 118 looking west toward Segment 2 (Figure 5.1-5);

B. View from Santa Rosa Road looking west toward Segment 2 (Figure 5.1-6);

C. View from Santa Rosa Road looking southwest toward Segment 2 (Figure 5.1-7);

D. View from Santa Rosa Valley Park looking northwest toward Segment 2 (Figure 5.1-8); and

E. View from COSCA-Managed Open Space looking north toward Segments 3 and 2 (Figure 5.1-9)

5.1.3 Applicant Proposed Measures

SCE has not identified any applicant proposed measures to reduce Proposed Project impacts on visual resources.

5.1.4 Impacts and Mitigation Measures

a) Have a substantial adverse effect on a scenic vista.

Impact 5.1-1: The Proposed Project could have an adverse effect on scenic vistas. *Less than significant* (Class III)

Scenic vistas in the vicinity of the Proposed Project include trails that look out over broad scenic landscapes, including the Lizard Rock trail near Hill Canyon Road in the Wildwood Park Open Space and Lynnmere Trail near Calle Yucca and the trail at the terminus of Wendy Drive, within the Conejo Canyon Open Space area. All of these locations are within the City of Thousand Oaks.

Figure 5.1-3, Photo 8a and Figure 5.1-4, Photo 8b show existing views of the Proposed Project area as viewed from the Lizard Rock Trail within the Wildwood Park Open Space. As shown in Photo 8a, electrical infrastructure is a part of the current viewshed, including an existing steel lattice transmission line tower on an undeveloped hillside. From the location shown in Photo 8a, the Proposed Project would introduce TSPs and additional conductor into the viewshed. The placement of the TSPs would be immediately adjacent to the existing steel lattice towers, although the TSPs would have a simpler, more streamlined profile than the steel lattice towers. The infrastructure proposed under the Proposed Project would be visible, but would not dominate the landscape or block views of the scenic vista. Given the presence and similarity of existing electrical infrastructure and the distance between the viewer and the new poles, the new infrastructure contrast would be weak; it would be visible but would not demand attention or dominate the characteristic landscape. Therefore, the Proposed Project would result in an

incremental visual change within the viewshed and would not substantially alter the intrinsic character or composition of the existing view. Overall visual change would be low-moderate.

Photo 8b shows the existing lattice towers in the valley below Lizard Rock Trail and the Wildwood Park Open Space. The viewer would be approximately 0.75 mile away from the Proposed Project, placing the Proposed Project in the foreground/middleground. In this viewshed, an existing portal-type tower transmission line is located on the valley floor, adjacent to low growing crops. The Proposed Project would result in installation of TSPs and conductor that would parallel the existing portal-type/lattice tower type transmission line. As described above, Proposed Project TSPs would have a simpler, more streamlined profile than the portal-type towers, and would have a weak visual contrast as poles would be visible but would not dominate the characteristic landscape. The new TSPs would be seen in context of the existing facilities and would not be immediately apparent due to distance and as details become indiscernible. Moreover, the Proposed Project infrastructure would not obstruct of block views of the scenic vista. Overall visual change would be low-moderate.

Though the visual sensitivity of the scenic vistas within Conejo Canyons Open Space and Wildwood Park Open Space is high, in conjunction with the low-moderate visual change associated with construction of the Proposed Project, impacts would be adverse, but not significant (see Table 5.1-3, *Guidelines for Determining Adverse Visual Impact Significance*).

Mitigation: None required.

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b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. (No Impact)

There are no designated state scenic highways in the vicinity of the Proposed Project. Therefore, there would be no impacts to scenic resources within a state scenic highway from construction, operation, or maintenance of the Proposed Project (No Impact).

---

c) Substantially degrade the existing visual character or quality of the site and its surroundings.

Construction

Construction-related impacts to visual quality would result from the presence of construction equipment, materials, and work crews at Moorpark and Newbury substations, along the proposed subtransmission alignment corridor, and on local access roads and staging areas. Crews would be required to maintain clean work areas as they proceed along the line and would not leave any debris behind at any stage of the project. The construction impacts to visual quality would be relatively short-term, approximately 10 months in total, although impacts along the subtransmission portion would be of shorter duration, spread out along different portions of the proposed subtransmission alignment.

A small portion of Segment 2 (at TSP locations 26 through 28), all of Segment 3 (TSP locations 29 through 40), and a portion of Segment 4 (TSP locations 41 through 52) would be located within a zone designated by the City of Thousand Oaks as *Open Space – Protected Ridgeline Overlay District*. As discussed earlier in this section under *Regulatory Setting*, the Protected Ridgeline Overlay zoning designation promotes the preservation of natural views and open space in the district with regulations to preserve natural land forms, maintain and preserve open space, and protect the scenic backdrop to the City's major roadways (City of Thousand Oaks, 2009).

CPUC General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project; as such, the Proposed Project would not have to be consistent with the City of Thousand Oaks zoning requirements. However, for informational purposes, the Proposed Project may be inconsistent with *Section 9-4.3502. Protected ridgeline development standards*, as it would construct new structures (i.e., TSPs), grade areas for TSP installation and road rehabilitation, and remove native vegetation within 300 feet horizontally or 100 feet vertically of the crest of a protected ridgeline. The removal of vegetation and grading related to the installation of new TSPs would not alter the contours of or change the elevation of the crest of the ridgeline, however, and would not substantially obstruct natural views and open space.

Visual impacts from construction of the Proposed Project are further discussed below.

Impact 5.1-2: Use of temporary staging and laydown areas during the construction period would result in adverse impacts to visual quality. ***Less than significant with mitigation*** **(Class II)**

During construction, SCE would use two staging areas, both located at Moorpark Substation (see Chapter 3, *Project Description*, Section 3.6.2, *Staging Areas*, and Figure 3-5, *Proposed Activities within Segments 1 and 2*, for a description and illustration of the proposed staging area locations, respectively). Both staging areas, up to a combined 5 acres in size, would be located within the perimeter fences and generally screened from adjacent residences and businesses by existing trees and shrubs along the substation perimeter. Material and equipment staged at the substation would include construction trailers, construction equipment, steel poles, wire reels, hardware, insulators, cross arms, signs, consumables (such as filler compound), best management practices (BMP) materials, portable sanitation facilities, and waste materials for salvaging, recycling, or disposal. The staging areas would be effectively screened from the public by the existing trees and shrubs surrounding the staging area; nonetheless, portions of the staging areas could be visible through the fences and trees. Nevertheless, the degree of visual change associated with operation of these temporary staging areas would be low, as the staging areas would be located on a site already in industrial use, and additional equipment brought to the site during the temporary construction period would be visually consistent with the kinds of equipment already on-site. The Proposed Project would not change or degrade the character or quality of the site. Due to the moderate-high visual sensitivity of SR 118 and the low degree of visual change caused by the Proposed Project, the impact to aesthetics caused by the staging areas would be adverse, but not significant (see Table 5.1-3).

Two construction laydown areas would be located near the Proposed Project. One construction laydown area would be 1.5 acres in size and located in the COSCA-managed open space lands along Segment 3 at pole locations 35 and 36, at an existing intersection of access roads within the existing SCE ROW. The second construction laydown area would be 0.2 acre in size and located 600 feet west of the Newbury Substation. Material stored at these locations would include construction equipment, portable sanitation facilities, foundation cages, steel bundles, steel/wood poles, conductor reels, hardware, insulators, cross arms, signage consumables, waste materials for salvaging, recycling, or disposal, and stormwater BMP materials. Construction laydown areas are planned for locations that are previously disturbed and that require limited grading. At the completion of construction activities, the construction laydown areas would be restored to preconstruction conditions. The construction laydown areas would be used on a temporary basis, and adverse visual impacts associated with operation of these temporary sites would be limited to the approximately 10-month construction period.

However, the laydown areas would create a moderate to strong visual contrast for recreationalists and other public viewers, as Proposed Project elements would introduce industrial features inconsistent with the scenic character of the viewshed. The laydown areas would attract, and may demand, viewers' attention, and Proposed Project components would range from subordinate within the viewshed where viewers are further away, to dominant along the trails adjacent to the larger laydown area near poles 35 and 36. Laydown areas and associated equipment could also impede trail access and/or impair scenic views. Overall visual change during construction would be moderate to high. Given high visual sensitivity of the Conejo Canyons Open Space, impacts to aesthetics would be significant. Implementation of Mitigation Measures 5.1-2a and 5.1-2b would minimize potential impacts from the laydown areas.

> **Mitigation Measure 5.1-2a:** SCE shall not place equipment at the laydown or conductor stringing areas any sooner than two weeks prior to the required use.
>
> **Mitigation Measure 5.1-2b:** SCE shall coordinate with the Conejo Open Space Conservation Agency (COSCA) to ensure that designated trails in the vicinity of the Proposed Project are not blocked by the laydown areas or conductor stringing areas. SCE shall coordinate with COSCA to post signage at trailheads within the Conejo Canyons Open Space area, alerting recreationalists to construction locations and dates.

Significance after mitigation: Less than significant.

Impact 5.1-3: Use of temporary construction conductor stringing sites during the approximately 10-month construction period could result in adverse impacts to visual quality. *Less than significant with mitigation* (Class II)

Temporary pulling/splicing sites would be staged at approximately 32 locations along the Proposed Project alignment. These sites would vary in size, but would typically be about 200 feet by 500 feet for tensioning equipment set-up sites, about 200 feet by 200 feet for pulling

equipment set-up sites, and about 150 feet by 100 feet for splicing equipment set-up sites. Each pull site would be cleaned up and restored to preconstruction conditions after construction. Some pulling/splicing sites would be visible scenic vistas along recreational trails; in particular, the stringing site near pole 40 would be highly visible from and could impede access to the Western Plateau Trail and the Peninsula Loop Trail. While the pulling/stringing set-up locations would only be used on a temporary basis, and views would be of short duration, adverse visual impacts associated with operation of these temporary sites could occur during the approximately 10-month construction period.

Mitigation: Implement Mitigation Measures 5.1-2a and 5.1-2b.

Significance after mitigation: Less than significant.

Impact 5.1-4: Vegetation clearance during construction could result in adverse impacts to visual quality. *Less than significant* (Class III)

During construction, no vegetation clearance is expected to occur within Segment 1. Vegetation removal may occur during construction activities in Proposed Project Segments 2, 3, and 4 depending upon the condition of the access roads, spur roads, and construction work sites at the commencement of construction.

Trees that are directly under the new line and of a variety that could grow into the lines would be removed. For trees that are adjacent to and could interfere with the new line, the decision to trim or remove specific trees would be based on the recommendation of SCE's arborist and/or biologist and would depend on the type, size, location, and condition of the trees. In portions of Segment 2, some tree trimming and/or removal may be necessary. Tree removal or trimming would depend on the type and size of the tree, and its location relative to construction work areas, and/or interference with CPUC General Order 95, *Rules for Overhead Electric Line Construction*. Currently, there is one eucalyptus tree identified just north of SR 118 (Los Angeles Avenue) that would need to be removed; along Montair Drive, approximately 10 to 12 carrotwood trees would need to be trimmed, and two to three pine trees would need to be removed. There are no trees that would be removed or trimmed in Segment 3. In Segment 4, within the outer fenceline of Newbury Substation, approximately 30 to 40 existing trees would require trimming or removal to facilitate construction including myoporum, eucalyptus, Brazilian pepper, California pepper, and Chinese elm trees. Trees would be trimmed or removed using typical arborist equipment, such as bucket trucks, chainsaws, and chippers.

The degree of vegetation removal required under the Proposed Project would not be such that it would substantially degrade the existing visual character or quality of the Proposed Project sites and their surroundings. Visual contrast would be weak to moderate, as the vegetation removal would be visible, but would generally not attract attention or be dominant within the characteristics landscape. Overall visual change from vegetation removal would be low, and impacts would not be significant.

Mitigation: None required.

Operations

Impact 5.1-5: The Proposed Project could substantially degrade the existing visual character or quality of the Proposed Project site and its surroundings from public views. *Less than significant* (Class III)

Moorpark Substation and Segment 1

As noted above, the Proposed Project alignment begins at the existing Moorpark Substation. Operational impacts associated with the proposed substation modifications would be viewed in the context of the existing substation equipment. Modifications to Moorpark Substation include the installation of approximately 500 feet of new underground 66 kV subtransmission line and a new line position in the 66 kV switchrack entirely within Moorpark Substation. All of these modifications would involve minimal physical changes, occurring within the existing fenceline and footprint of the existing substation. Changes could be visible from a limited portion of SR 118; however, these minor equipment improvements would be generally imperceptible to viewers. Furthermore, because the new equipment would be of the same nature as the existing facilities, it would blend in with the existing view, which includes not only the substation facilities, but also existing electricity infrastructure not related to the Proposed Project (e.g., existing transmission alignments). Therefore, the incremental change to the existing visual quality from the proposed substation modifications would be low. In conjunction with the low visual sensitivity of the Moorpark Substation site, impacts would be less than significant.

Segment 2

The alignment within Segment 2 is within an existing SCE transmission ROW and would include the installation of two TSP foundations, four TSPs, the upper portion of one TSP, and approximately 5 miles of conductor on new and existing TSPs on the south and east sides of SCE's existing Moorpark-Ormond Beach 220 kV ROW. Viewers primarily affected in this portion of the Proposed Project would include motorists along SR 118, Santa Rosa Road, and local roads; nearby residents; and recreationalists using Santa Rosa Valley Park, Wildwood Park Open Space area, and the Conejo Canyons Open Space. (Motorists traveling along SR 23 would not be affected by the Proposed Project due to distance, short durations of time viewed, and intervening vegetation and topography.) As shown in Photos 1 through 8b on Figures 5.1-2, 5.1-3, and 5.1-4, existing views encompass existing transmission structures, including wood poles, steel portal-type towers, steel poles, and lattice towers.

Figure 5.1-5 presents an existing view and visual simulation of the Proposed Project as seen from SR 118 where Segment 2 crosses the road, looking west. Existing electricity infrastructure is prominent in this viewshed. An existing wood pole communication line is located on the south side of the road, and subtransmission lines are located on the north side of the road. Transmission

conductor traverses the road, and a portal-type transmission structure and TSP are located on the south side of the road. The Proposed Project would result in installation of conductor on the existing TSP. As shown in the visual simulation, the placement of the conductor would follow the same lines created by the conductor on the portal-type transmission line. As shown in the simulation, the additional conductor installed as part of the Proposed Project would be nearly imperceptible to motorists traveling on SR 118, and Proposed Project components would not substantially alter the intrinsic character or composition of the existing view. Given the moderate-high visual sensitivity of SR 118 and the low degree of visual change, impacts would be adverse but not significant (see Table 5.1-3).

Figure 5.1-6 presents an existing view and visual simulation of the Proposed Project as seen from Santa Rosa Road where Segment 2 crosses the road, looking west. In this viewshed, an existing wood pole distribution line and steel portal-type transmission line are located on the south side of the road. The Proposed Project would install a TSP and conductor just south of Santa Rosa Road (pole location 24, shown in Figure 3-6). As shown in the visual simulation, the placement of the TSP would be immediately adjacent to the portal-type towers, on the east side of the existing alignment. The TSP would have a simpler, more streamlined profile than the portal-type towers. The new TSP would have a weak to moderate visual contrast, as it would be visible but would not dominate the landscape. The TSP would not block views of aesthetic features in the viewshed, or substantially alter the intrinsic character or composition of the existing view. The overall visual change would be low. In conjunction with the moderate visual sensitivity of Santa Rosa Road, impacts would be adverse but not significant.

Figure 5.1-7 presents an existing view and visual simulation of the Proposed Project as seen from Santa Rosa Road at Hill Canyon Road, looking southwest. The viewer would be approximately 0.5 mile away from the Proposed Project, placing the Proposed Project in the foreground/middeground. In this viewshed, the existing portal-type tower transmission line transitions to a lattice-tower type transmission line as it climbs in elevation. Low growing crops and an existing wood-pole electrical line are in the foreground, on the south side of the road. The Proposed Project would result in the installation of TSPs and conductor parallel to the east side of the existing portal-type/lattice tower type transmission line. The TSPs would have a simpler, more streamlined profile than the portal-type and lattice-type towers, and would not be immediately apparent due to distance and as details become indiscernible. The proposed subtransmission line would result in an incremental visual effect change to the viewshed, as the new TSPs and conductor would be nearly imperceptible, with no visual contrast. They would be fully subordinate to other features in the landscape, and would not block or substantially alter the intrinsic character or composition of the existing view. Overall visual change would be low. In conjunction with the moderate visual sensitivity of Santa Rosa Road, impacts would be adverse but not significant.

Figure 5.1-8 presents an existing view and visual simulation of the Proposed Project as seen from Santa Rosa Valley Park, looking northwest. The viewer would be approximately 0.3 mile away from the Proposed Project, placing the Proposed Project in the foreground. Viewers currently experience views of the Santa Rosa Valley and hills beyond, creating a landscape that is made up of

a variety of textures, and includes agricultural crops, orchards, roads, scattered buildings, naturally vegetated hillsides, and rugged mountains in the background. A portal-type transmission line is in the middle of the view. As shown in the visual simulation, the Proposed Project would result in the installation of TSPs and conductor, which would parallel the existing portal-type transmission line on the east side. The TSPs would have a simpler, more streamlined profile than the portal-type and lattice-type towers. From this distance, the new conductor would be imperceptible. The new TSPs, although visible, would be immediately adjacent to the portal-type and lattice-type towers, which would minimize the introduction of additional industrial components in the viewshed. The new TSPs would be visible, but would not attract attention, resulting in weak visual contrast. They would not dominate the landscape, or block or impair views of aesthetic features due to their position and scale. The Proposed Project would result in a low degree of visual change. Despite the high visual sensitivity of Santa Rosa Valley Park, impacts would be adverse but not significant.

Segment 3

The alignment within Segment 3 is within an existing SCE transmission ROW and would include the installation of eight TSP foundations, 13 double-circuit TSPs, and approximately 2 miles of conductor on the new Moorpark-Newbury 66 kV Subtransmission Line. In addition, it would include reconductoring 2 miles of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line. Both of these subtransmission lines would be collocated on the new double-circuit TSPs. The Proposed Project would also remove 14 existing LSTs along this 2-mile segment. Viewers in this area would be limited to recreationalists using the trail system in the Conejo Canyons Open Space area, although trails with views of Segment 3 are limited. As shown in Figure 5.1-4, Photo 8b, electricity-related infrastructure is prominent in existing views, including LSTs and LWS poles, conductor, and access roads. Although the Proposed Project would result in the installation of new TSPs and conductor, it would remove LSTs. This exchange would not alter the intrinsic character or composition of the existing view. The visual contrast would be weak, and Proposed Project elements would be visible but would not demand attention, dominate the landscape, or block views of scenic features. Despite the high visual sensitivity of the Conejo Canyons Open Space area, the overall visual change would be low and the associated impacts would be adverse but not significant.

Segment 4 and Newbury Substation

The alignment within Segment 4 is within an existing SCE transmission ROW and would include the installation of approximately 1 mile of conductor for the new Moorpark-Newbury 66 kV Subtransmission Line, to be collocated with the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line on previously installed LWS poles into Newbury Substation. In addition, four TSP foundations, four TSPs, two LWS poles, and a new 66 kV subtransmission line position would be installed, and six wood poles would be removed at Newbury Substation. The existing subtransmission, distribution, and telecommunications facilities would be transferred onto the new TSPs and LWS poles. Viewers in this area would include recreationalists in the Conejo Canyons Open Space and surrounding trails in the City of Thousand Oaks, as well as residents, motorists, on local roads, and employees at nearby commercial buildings.

As shown in Photos 10 and 11 on Figure 5.1-4, electricity-related infrastructure is prominent in existing views, including LSTs and LWS poles, conductor, and access roads. Figure 5.1-9 presents an existing view and visual simulation of the Proposed Project as seen from a trail located within the Conejo Canyons Open Space area, approximately 1,000 feet north of North Wendy Drive. The Proposed Project would be in the foreground as viewed from this location. In these photos the Proposed Project travels north (away from the viewpoint) for approximately 0.4 mile. The Proposed Project would result in the installation of conductor on existing LWS poles in the ROW. As shown in the visual simulation, this change would not be immediately perceptible to the common viewer. The visual contrast would be none, as the element contrast is not visible. The proposed conductor would not alter the intrinsic character or composition of the existing view. Despite the high visual sensitivity of the Conejo Canyons Open Space area, the overall visual change would be low and the associated impacts would be adverse but not significant.

Changes within Newbury Substation, especially if a large number of trees are removed, could be visible from local roads; however, these minor equipment improvements would be generally imperceptible to viewers. Furthermore, because the new equipment would be of the same nature as the existing facilities, it would blend in with the existing view which includes not only the substation facilities, but also existing electricity infrastructure not related to the Proposed Project (e.g., existing subtransmission alignments). Proposed Project components would result in a weak visual contrast, would be subordinate in the viewshed to existing features, and would not block or impair scenic qualities visible from the Conejo Canyons Open Space, local roads, or residences. Therefore, this incremental change to the existing visual quality from the proposed alignment and substation modifications would result in a low degree of visual change. Despite the high visual sensitivity of the Conejo Canyons Open Space area, given the low degree of visual change, overall impacts from Segment 4 would be less than significant.

The north/south portion of Segment 4, in which conductor would be installed, could also be visible from U.S. 101, from a distance ranging from approximately 0.5 mile to 1 mile. However, Proposed Project elements would be generally obscured by intervening vegetation, topography, and structures. In addition, the conductor would be generally imperceptible to motorists because of the distance between motorists and Proposed Project components, the speed with which motorists would be traveling on the highway, and the position and scale of the conductor. There would be no visual contrast, view blockage or impairment. Given the low-moderate visual sensitivity of U.S. 101, the resulting impact would be not significant.

Mitigation: None required.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Impact 5.1-6: If night lighting is required during construction, the Proposed Project could adversely affect nighttime views in the Proposed Project area. *Less than significant with mitigation* (Class II)

Construction activities would normally occur during daylight hours (7:00 a.m. to 7:00 p.m.), minimizing the need for lighting. However, night construction activity may be required. If night construction is required, temporary lighting would likely be required for security and safety reasons at the Proposed Project facilities, including the staging areas and pull/tension sites. Night lighting could potentially result in impacts to visual resources by increasing ambient light to surrounding areas, creating distracting glare, and reducing sky or star visibility. Nearby land uses, including residences and businesses, provide some lighting of their own. However, a large portion of the Proposed Project would be located in a relatively undeveloped area with features that would result in increased lighting contrast when compared to the lighted developed areas. Therefore, nighttime lighting could have a potentially significant impact to nighttime views in the Proposed Project vicinity. With implementation of Mitigation Measure 5.1-6, which requires a *Construction Lighting Mitigation Plan* with the use of shielded lighting elements, directed fixtures, and motion or timing sensors, this impact would be reduced to less than significant.

> **Mitigation Measure 5.1-6:** SCE shall design and install all lighting at Project facilities, including construction and storage yards and staging areas, such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. SCE shall submit a *Construction Lighting Mitigation Plan* to the CPUC for review and approval at least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SCE shall not order any exterior lighting fixtures or components until the *Construction Lighting Mitigation Plan* is approved by the CPUC. The Plan shall include but is not limited to the following measures:
>
> - Lighting shall be designed so exterior lighting is hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the Project boundary.
>
> - All lighting shall be of minimum necessary brightness consistent with worker safety.
>
> - High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

Significant after mitigation: Less than significant.

Impact 5.1-7: The Proposed Project could create new sources of glare. *Less than significant* (Class III)

The Proposed Project would introduce new poles and overhead conductors into viewsheds, which could be a noticeable visual change as seen from some viewing locations during the daytime. However, as described in Chapter 3, *Project Description*, new conductor would be non-specular, and new poles would have a dulled, galvanized finish. As such, the Proposed Project would not result in a new source of glare, and impacts would be less than significant.

Mitigation: None required.

5.1.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, no new facilities would be constructed, and existing facilities would not be altered, expanded, or demolished. Implementation of this alternative would not affect scenic vistas, scenic resources, or the existing visual character of the surrounding area, and would not create any additional source of light or glare (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. Construction impacts associated with No Project Alternative 2 would be similar to those of the Proposed Project because this alternative would require construction activities within the same SCE ROW to remove 22 TSPs, the base section of one additional TSP, 30 TSP foundations, and slurry from three foundation holes. Like the Proposed Project, impacts to scenic vistas (Impact 5.1-1) would be less than significant (Class III), and No Project Alternative 2 would have no impact regarding criterion b) because it would not damage scenic resources within a state scenic highway (No Impact). Impacts from the use of temporary staging areas and laydown areas (Impact 5.1-2), and stringing sites (Impact 5.1-3), would be less than significant with implementation of Mitigation Measures 5.1-2a and 5.1-2b (Class II). Visual impacts from vegetation clearance (Impact 5.1-4) would be less than significant (Class III). For operations and maintenance (Impact 5.1-5), No Project Alternative 2 would remove industrial structures (i.e., TSPs) from open space areas and other scenic landscapes in Segment 2. This would create a beneficial impact on the environment (Class IV). Like the Proposed Project, No Project Alternative 2 require Mitigation Measure 5.1-6 if night lighting were necessary (Impact 5.1-6), and would not create a significant new source of glare (Impact 5.1-7, Class III).

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5.2 Agriculture and Forestry Resources

This section identifies and evaluates issues related to agriculture and forestry resources in the context of the Proposed Project and alternatives. It includes a description of existing land use conditions in relation to farmland designations, Williamson Act contracts, forest and timberland zoning, and related uses. This section further provides a discussion of applicable state, regional, and local plans and programs, and an evaluation of potential impacts associated with implementation of the Proposed Project and alternatives.

5.2.1 Setting

Regional and Local Setting

Agriculture is a regionally important industry in Ventura County. In 2013, there were approximately 92,000 acres of irrigated cropland in the county. The five highest-value crops in the county were strawberries, avocados, raspberries, nursery stock, and lemons; these, along with numerous other crops and agricultural products, contributed to a countywide gross value of over 2 billion dollars (VCOAC, 2014).

Agricultural lands occur along Proposed Project Segment 2, as shown on **Figure 5.2-1**, *Farmland in the Proposed Project Area*. Maps issued as part of the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) show that the existing rights-of-way (ROWs) in which the Proposed Project would be developed are located within areas designated as *Prime Farmland, Farmland of Statewide Importance*, *Unique Farmland*, and *Farmland of Local Importance* ("Farmland") (CDC, 2012). Additionally, some of the lands along Segment 2 are in an Agricultural Preserve and/or covered by a Williamson Act contract (Ventura County RMA, 2013 and 2014). Williamson Act lands are shown in **Figure 5.2-2**, *Williamson Act Land in the Proposed Project Area*.

As described in Section 5.11, *Land Use and Planning*, and shown on Figure 5.11-2, *Zoning Designations in the Proposed Project Vicinity*, nearly all of Segment 2 of the Proposed Project alignment traverses areas within Ventura County zoned *Agricultural Exclusive* (*AE*). Additionally, Pole location 2 at the northeastern end of Segment 2 is located within the City of Moorpark in an area zoned *Agricultural Exclusive* (City of Moorpark, 2008); however, this area is not currently in agricultural use. There are no existing agricultural resources or zoning for agricultural use within or adjacent to Segments 1, 3, or 4 of the Proposed Project.

There are no designated forest lands within or adjacent to the Proposed Project alignment, nor is there zoning for forest land along the Proposed Project alignment (see Section 5.11, *Land Use and Planning*. However, Public Resources Code Section 12220(g) defines "forest land" as "land that can support 10percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." Nearly all of Segment 3 is located in open space lands managed by Conejo Open Space Conservation Agency (COSCA). This land includes mountainous terrain in a natural and mostly

undisturbed setting. The Conejo Canyons Open Space Management Plan (Management Plan), prepared by the COSCA, provides a comprehensive guide for the long-term management of the Conejo Canyons natural, cultural, and scenic resources, while providing for compatible passive multi-use, trail-based recreational activities. Because the Conejo Canyons area could support 10-percent native tree cover under natural conditions, and currently manages forest resources including aesthetics, biodiversity, water quality, recreation, and other benefits, this EIR considers land managed by COSCA as "forest land." Ventura County does not contain land which produces timber commercially for eventual use as lumber or pulp. Several Christmas tree farms are zoned *Timberland Preserve* (*T-P*) pursuant to the provisions of the Timberland Preserve Zone of the County Zoning Ordinance. None of these Christmas tree farms is located near the Proposed Project alignment (Ventura County RMA, 2011). There is no timberland, as defined by Public Resources Code Section 4526, within or near the Proposed Project alignment.

Regulatory Setting

Federal

No federal plans or policies concerning agriculture and forestry resources apply to the Proposed Project or alternatives.

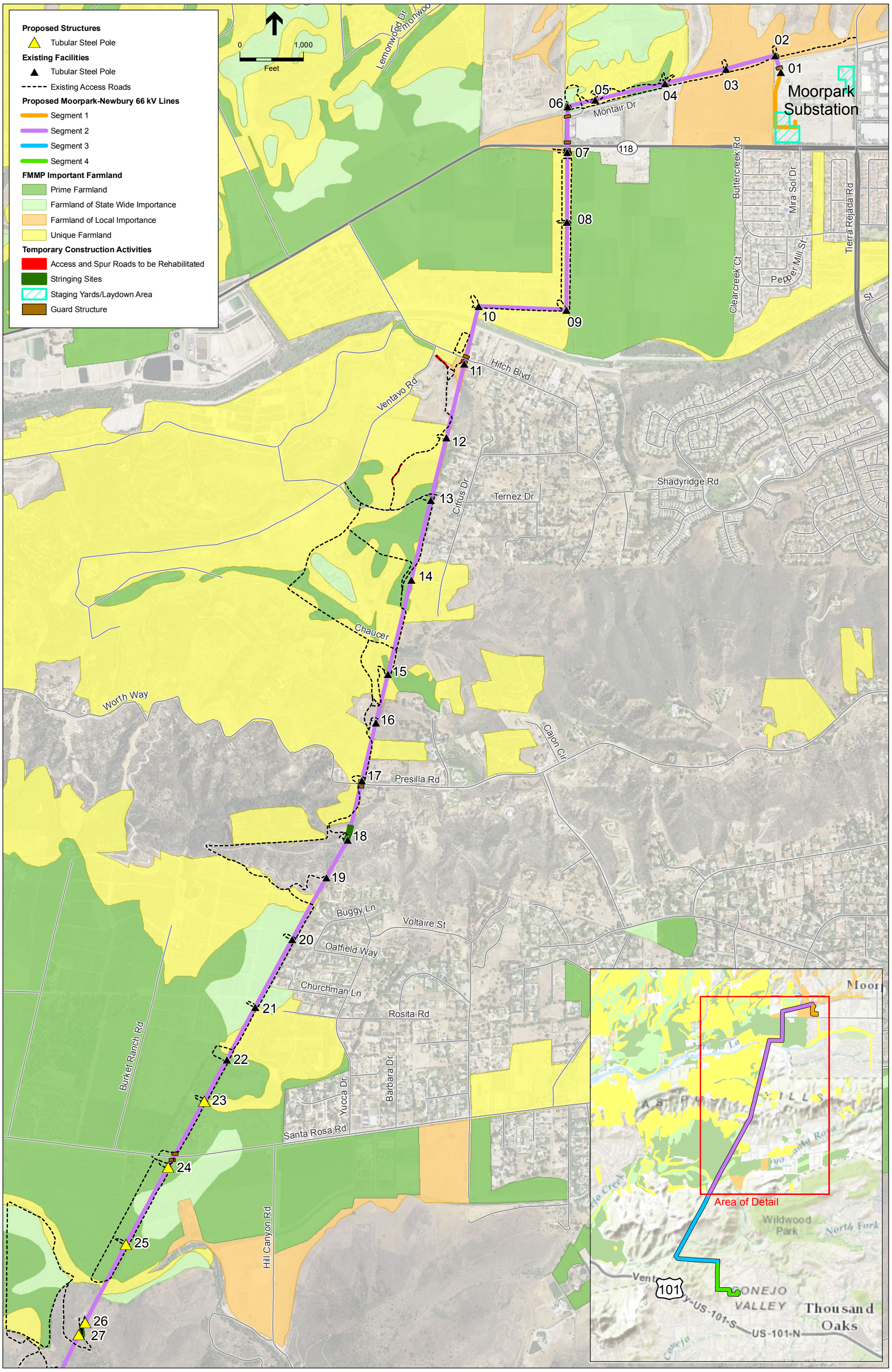
State

California Farmland Mapping and Monitoring Program (FMMP)

The California Department of Conservation's FMMP provides a classification system based on technical soil ratings and current land use (CDC, 2014). The FMMP is an informational service only and does not have regulatory jurisdiction over local land use decisions. The minimum land use mapping unit is 10 acres unless specified; smaller units of land are incorporated into the surrounding map classifications.

For the purposes of this environmental analysis and consistency with California Environmental Quality Act (CEQA) Guidelines Appendix G, the term "Farmland" refers to FMMP map categories *Prime Farmland*, *Unique Farmland*, and *Farmland of Statewide Importance* (hereafter collectively referred to as "Farmland"). Generally, any conversion of land from one of these categories to a lesser quality category or a non-agricultural use would be considered to be an adverse impact. These map categories are defined as follows (CDC, 2014):

> ***Prime Farmland*:** Land which has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.
>
> ***Unique Farmland*:** Land of lesser quality soils used for the production of specific high economic value crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. It is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic

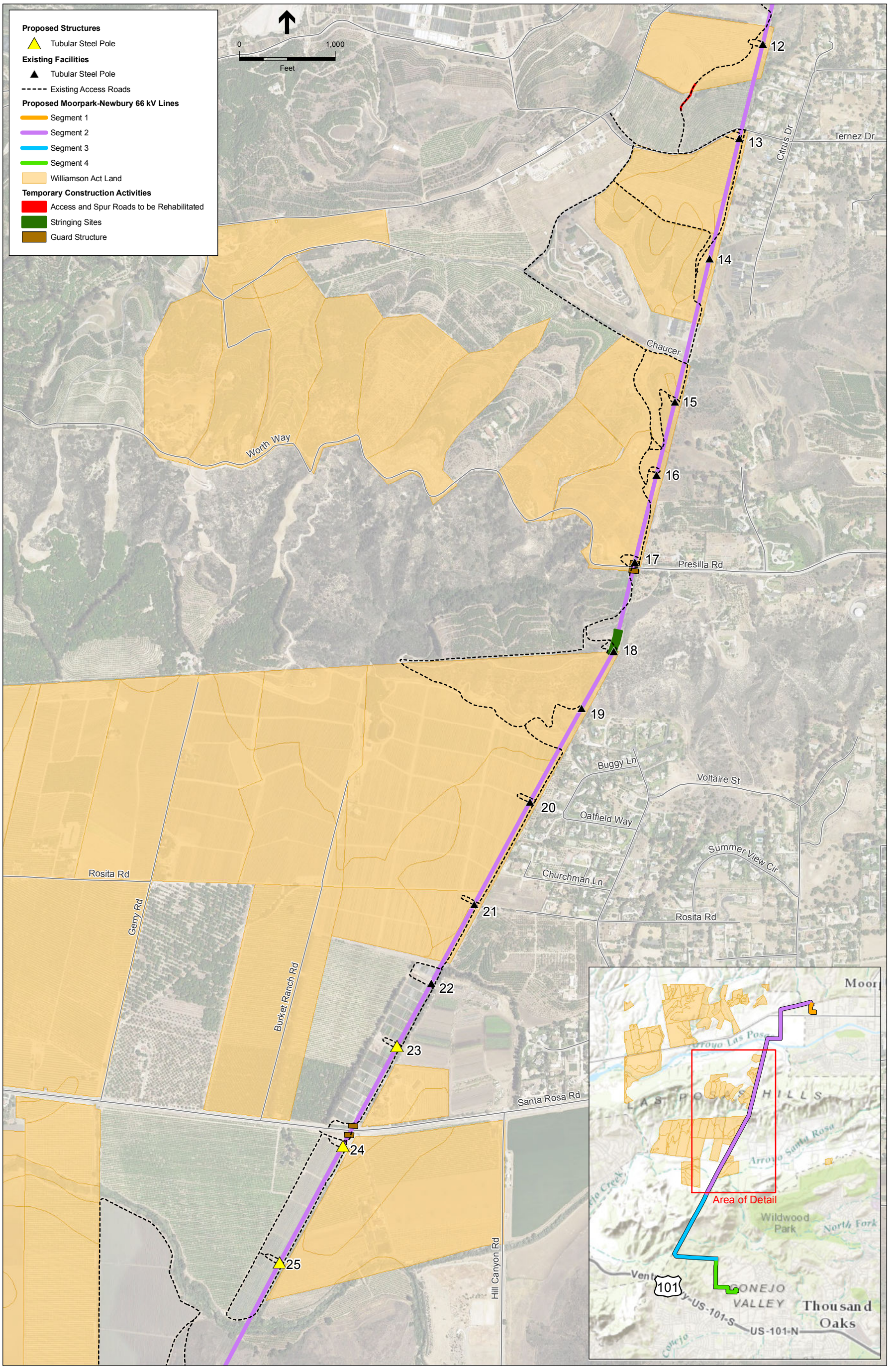


SOURCE: SCE, 2013; CDC, 2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.2-1

Farmland in the Proposed Project Area



SOURCE: SCE, 2013; CDC, 2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.2-2

Williamson Act Land in the Proposed Project Area

zones in California. Examples of crops include oranges, olives, avocados, rice, grapes, and cut flowers.

***Farmland of Statewide Importance*:** Land that is similar to *Prime Farmland* but with minor shortcomings, such as greater slopes or less ability to hold and store moisture.

A fourth category is *Farmland of Local Importance*, which in Ventura County includes "soils that are listed as Prime or Statewide that are not irrigated, and soils growing dryland crops—beans, grain, dryland walnuts, or dryland apricots" (CDC, 2010). For the purposes of this environmental analysis and consistency with CEQA Guidelines Appendix G, the definition of "Farmland" does not include *Farmland of Local Importance* and so this category of land is not discussed further in the analysis of Proposed Project effects.

California Public Resources Code

The California Public Resources Code governs forestry, forests, and forest resources, as well as range and forage lands, within the state. "Forest land" is defined by Public Resources Code Section 12220(g) as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." "Timberland" is defined by Public Resources Code Section 4526 as "land, other than land owned by the federal government..., which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees."

California Government Code

Chapter 6.7 of the Government Code (§§51100-51155) regulates timberlands within the state. "Timberland production zone" is defined in Section 51104(g) as an area that has been zoned pursuant to Government Code Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. In this context, "compatible uses" include any use that "does not significantly detract from the use of the property for, or inhibit, growing and harvesting timber" (Government Code §51104(h)). Watershed management, grazing, and the erection, construction, alteration, or maintenance of electric transmission facilities are examples of compatible uses. The general plans of cities and counties may use the term "timberland preserve zone," which Government Code Section 51104(g) defines as equivalent to "timberland production zone."

California Land Conservation Act of 1965

The California Land Conservation Act of 1965 (Williamson Act) preserves open spaces and agricultural land in exchange for property tax breaks (Government Code §51200 et seq.). It discourages urban sprawl and prevents landowners from developing their property for the greater land value of commercial and/or residential uses. The Williamson Act is a state program implemented at the county level that allows agricultural landowners to contractually agree to

retain land included in an agricultural preserve[1] in agricultural or and open space uses for a period of 10 years and, in return, to pay reduced property taxes. The term of the contract automatically renews each year unless not renewed or cancelled, so that the contract always has a 10-year period left.

Local

California Public Utilities Commission (CPUC) General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to agriculture and forestry resources that would otherwise be relevant to the Proposed Project and alternatives are described below.

Ventura County General Plan

The following goals pertaining to agriculture identified in the Ventura County General Plan are relevant to this analysis (Ventura County, 2013):

> *Goal:* Promote the efficient distribution of public utility facilities and transmission lines to assure that public utilities are adequate to service existing and projected land uses, avoid hazards and are compatible with the natural and human resources.
>
> *Policy 2:*All transmission lines should be located and constructed in a manner which minimizes disruption of natural vegetation and agricultural activities and avoids unnecessary grading of slopes when not in conflict with the rules and regulations of the California Public Utilities Commission.

Ventura County Non-Coastal Zoning Ordinance

Section 8104-1.2 of the Ventura County Non-Coastal Zoning Ordinance (Ventura County Planning Division, 2011) defines the *Agricultural Exclusive* (*AE*) Zone as follows:

> The purpose of this zone is to preserve and protect commercial agricultural lands as a limited and irreplaceable resource, to preserve and maintain agriculture as a major industry in Ventura County and to protect these areas from the encroachment of nonrelated uses which, by their nature, would have detrimental effects upon the agriculture industry.

Section 8103-0 establishes a minimum lot area of 40 acres for parcels zoned *AE*. Section 8105-4 indicates that aboveground transmission lines are allowed in the *AE* zone with a Planning Director-approved Conditional Use Permit. However, as described in Section 1.4.2, no local discretionary (e.g., use) permits are required for the Proposed Project, since the CPUC has preemptive jurisdiction over the construction, maintenance, and operation of Southern California Edison (SCE) facilities in California.

[1] An agricultural preserve defines the boundary of an area within which a city or county would be willing to enter into Williamson Act contracts with landowners: The boundary is designated by resolution of the city council or board of supervisors having jurisdiction. Agricultural preserves generally must be at least 100 acres in size.

The City of Moorpark

The City of Moorpark General Plan does not contain policies concerning agriculture or forestry resources that are relevant to the Proposed Project or alternatives (City of Moorpark, 1986). The Moorpark Zoning Ordinance indicates that utility structures are allowed in agricultural zones with an administrative permit (Municipal Code Section 17.20.050; City of Moorpark, 2013). However, as described in Section 1.4.2, no local discretionary (e.g., use) permits are required for the Proposed Project, since the CPUC has preemptive jurisdiction over the construction, maintenance, and operation of SCE facilities in California.

The City of Thousand Oaks

The City of Thousand Oaks General Plan does not contain policies concerning agriculture or forestry resources that are relevant to the Proposed Project or alternatives (City of Thousand Oaks, 1997).

Conejo Canyons Open Space Management Plan

The Conejo Canyons Open Space Management Plan (Management Plan) was prepared by the COSCA to provide a comprehensive guide for the long-term management of the Conejo Canyons natural, cultural, and scenic resources while providing for compatible passive multi-use, trail-based recreational activities. COSCA is a joint powers agency that was formed between the City of Thousand Oaks and the Conejo Recreation and Park District in 1977 in order to implement the adopted goals of the Open Space and Conservation Elements of the Thousand Oaks General Plan. The Conejo Canyons area is located in the northwestern corner of the City of Thousand Oaks.

Section 2.4 of the Management Plan identifies a number of ROWs held by a variety of public utilities that traverse the Conejo Canyons area, including the following for SCE:

> "Southern California Edison (SCE) electrical transmission lines and towers are located just beyond and parallel to the western boundary of the plan area. Portions of the access road ROW for the transmission lines traverse the western boundary of the Canyons West OSU [Open Space Unit]. SCE also has local transmission lines and access easements along the southern portion of the Canyons West OSU (Figure 2-8: SCE Easements). Dirt roads provide access through these easements, and some also serve as multipurpose trails. Two minor transmission lines serve the Hill Canyon Treatment Plant. The first runs from the Western Canyon area through the lower Conejo Creek to the plant. The second line runs from the Rancho Conejo Industrial Park down the canyon to the plant."

5.2.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant agriculture resources effects on the environment if it would:

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

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract;

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

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

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

5.2.3 Applicant Proposed Measures

No applicant proposed measures have been proposed to address impacts of the Proposed Project on agriculture or forestry resources.

5.2.4 Impacts and Mitigation Measures

Approach to Analysis

This analysis uses land use and agricultural designation maps produced by planning and resource agencies, including the California Department of Conservation and local governments, to determine whether the Proposed Project would directly or indirectly affect land used for agricultural or forestry uses, and analyzes the significance of such impacts based on the potential for the Proposed Project to convert such lands to non-agricultural or non-forestry uses or to cause nuisances that would indirectly affect the ability to continue to use them for agricultural or forestry use.

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

Impact 5.2-1: The Proposed Project would not convert Farmland to non-agricultural use. *Less than significant* (Class III)

Impacts related to the conversion of Farmland to non-agricultural use could occur temporarily as a result of ground-disturbing activities and/or permanently as a result of long-term occupation of agricultural lands by non-agricultural structures or uses.

As described in Section 3.4, *Overview of the Proposed Project*, Segment 2 of the Proposed Project would include the installation of two tubular steel pole (TSP) foundations at pole locations 26 and 27. As shown in Figure 3-6, *Proposed Activities within Segments 2 and 3*, proposed new TSP sites 26 and 27 are located on a hill south and east of existing agricultural areas. The location of these proposed TSP foundations is shown as “other land” on the FMMP map for Ventura County (CDC, 2012). Therefore, ground disturbance associated with the installation of these TSP foundations, and the location of the temporary stringing site located between them, would not affect Farmland. The other structures constructed in Segment 2 would

be TSPs installed on existing foundations, which would not permanently disturb any land. The Proposed Project would not permanently disturb areas of Farmland not currently disturbed, and therefore would not result in the long-term conversion of Farmland to non-agricultural use.

Additional temporary ground disturbance associated with Segment 2 could result from guard structure installation and the use of string-pulling and helicopter landing sites. As shown in Figure 3-6, the proposed guard structures at pole location 17 would be located on either side of Presilla Road, to the east of the existing Moorpark-Ormond Beach 220 kV lines. The stringing site north of pole location 18 similarly would be located east of these lines. Both locations are in areas shown as "other land" on the FMMP map (CDC, 2012). The proposed guard structures north of pole location 24 would be within an area designated as *Prime Farmland*, but would be located within existing disturbed locations and removed after Proposed Project construction. Similarly, the helicopter landing site west of Pole 27 (see Figure 3-6) would be located on previously disturbed land not currently in agricultural production, but designated as *Unique Farmland*. The temporary uses associated with the Proposed Project are not expected to permanently convert these locations to non-agricultural use. This impact would be less than significant.

Mitigation: None required.

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b) Conflict with existing zoning for agricultural use, or a Williamson Act contract. (No Impact)

The Proposed Project would not be located within an area zoned for agricultural use within the City of Thousand Oaks.

As described in the Ventura County Land Conservation Act Guidelines, "In accordance with Government Code Sections 51231, 51238, and 51238.1, 'compatible uses' are those which are permitted, or conditionally permitted by the Ventura County Zoning Ordinance in the AE-40 ac or CA zones" (Ventura County Board of Supervisors, 2013). As described above, aboveground transmission lines are allowed in *AE* zones with a Conditional Use Permit, or in the case of the Proposed Project, with a Permit to Construct (PTC) from the CPUC, which preempts local jurisdiction. Furthermore, the Proposed Project would not reduce the size of any parcel zoned *AE-40* to below the 40-acre minimum, because it would be constructed within an existing ROW currently occupied by existing transmission lines. Therefore, the Proposed Project would not conflict with agricultural zoning in unincorporated Ventura County.

As also described above, within the City of Moorpark, utility structures are allowed in agricultural zones with an administrative permit, or in the case of the Proposed Project, with a PTC from the CPUC, which preempts local jurisdiction. Therefore, the Proposed Project would not conflict with agricultural zoning in the City of Moorpark.

Pole locations 12 through 21 are within lands under a Williamson Act contract. The Proposed Project does not include ground disturbance at these locations, but would include installation of conductor along this alignment. At these pole locations, conductor would be installed on existing structures within an existing SCE ROW. Therefore, the Proposed Project would not affect agricultural lands under a Williamson Act contract, and thus would not conflict with such contracts (No Impact).

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c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined in Public Resources Code §4526) or timberland zoned Timberland Production (as defined by Government Code §51104(g). (No Impact)

As described above, there is no zoning for forest land or timberland, or timberland zoned Timberland Production, within or adjacent to the Proposed Project alignment. Segment 3 of the Proposed Project would traverse land under the jurisdiction of COSCA that meets the definition of "forest land" as defined in Public Resources Code Section 12220(g). As shown in Section 5.11, *Land Use and Planning,* Figure 5.11-2, *Zoning Designations in the Proposed Project Vicinity,* land within COSCA's jurisdiction is zoned by Ventura County as *Open Space*, and is zoned by the City of Thousand Oaks as *Open Space – Protected Ridgeline Overlay Zone*. In Ventura County, aboveground transmission lines are allowed in *Open Space* zoning designations with a Conditional Use Permit (Ventura County, 2014). However, a use permit is a discretionary land use instrument, and so not required for the Proposed Project. In the City of Thousand Oaks, electric transmission lines are recognized as exempted from the zoning ordinance. Furthermore, as is discussed in Section 5.11, *Land Use and Planning*, the Proposed Project would not result in a conflict with the *Protected Ridgeline Overlay Zone* as it would result in a less-than-significant impact on visual resources. Therefore, the Proposed Project would not conflict with existing zoning of forest land, and would not cause rezoning of forest land (No Impact).

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d) Result in the loss of forest land or conversion of forest land to non-forest use. (No Impact)

As described above, there is no forest land within or adjacent to the Proposed Project alignment. Therefore, the Proposed Project would have no impact on the conversion of forest land to non-forest use (No Impact).

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

As described above, there is no forest land within or adjacent to the Proposed Project alignment. Therefore, the Proposed Project would have no direct impact on the conversion of forest land to non-forest use.

For portions of the Proposed Project that would be constructed or installed within existing agricultural lands, per the analysis under criteria a) and b), the Proposed Project would not convert Farmland to non-agricultural use.

Other changes in the existing environment that could result in the conversion of Farmland to non-agricultural use or of forest land to non-forest use may include changes in water availability to these lands, inducement of population growth that could result in new housing or other facilities being built within these lands, or the installation of structures that could impede farming practices.

As discussed in Section 5.10, *Hydrology and Water Quality*, the Proposed Project would not result in substantial changes in surface hydrology or water quality, nor would it result in groundwater drawdown or changes in groundwater recharge or water quality. Therefore, it would not cause changes in the availability or quality of water that supports agricultural or forest uses.

Additionally, as discussed in Section 5.14, *Population and Housing*, the Proposed Project would not result in substantial population growth or in the construction of housing that may be built on Farmland or forest land.

A comment received during the scoping process indicated that the installation of overhead transmission lines could impede the use of aerial farming practices (e.g., for pest management). The Proposed Project would be collocated with existing overhead lines and tall structures in all portions of the alignment within or near Farmland; therefore, the addition of a transmission line within an existing in-use transmission ROW would have a minimal incremental impact on the ability to use aerial farming practices in the Proposed Project area, and is not expected to result in the conversion of Farmland to non-agricultural use.

Accordingly, the Proposed Project would have no impact with respect to other changes in the environment that could convert Farmland or forest land (No Impact).

5.2.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the Proposed Project would not be implemented; therefore, there would be no impact related to agriculture and forestry resources (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and all of the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. Several of the TSPs, TSP foundations, and slurry-filled foundation holes within agricultural areas in Segment 2 would be removed. However, the areas from which these structures would be removed are within existing SCE ROW, and are therefore not currently in agricultural use. It is possible that up to approximately 1 acre of Farmland could be returned to agricultural use after these structures are removed (SCE, 2013). Therefore, implementation of this alternative would not convert Farmland to non-agricultural use, conflict with agricultural zoning or a Williamson Act contract, conflict with or cause rezoning of forest land or timberland, convert forest land to non-forest use, or involve other changes in the environment that could convert Farmland or forest land (No Impact).

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5.3 Air Quality

This section evaluates the potential for the Proposed Project, as well as the alternatives, to impact regional and local air quality due to generation of air emissions during construction, operation, and maintenance activities.

5.3.1 Setting

Air quality is affected by numerous factors, including the rate and location of pollutant emissions and environmental conditions which influence movement and dispersal of pollutants. These conditions include atmospheric features such as wind speed, wind direction, and air temperature gradients, as well as local topography.

The study area for air quality encompasses the City of Moorpark, the City of Thousand Oaks, and parts of unincorporated Ventura County within the South Central Coast Air Basin (SCCAB). Ventura County (County) is comprised of coastal mountain ranges, the coastal shore, the coastal plain, and several inland valleys. The County frequently suffers from poor air quality, as local air movement often exhibits weak vertical and horizontal dispersion characteristics, which limit the dispersion of emissions and cause increased ambient air pollutant levels. Persistent temperature inversions prevent vertical dispersion; the inversions act as a "ceiling" that prevents pollutants from rising and dispersing. Mountain ranges act as "walls" that inhibit horizontal dispersion of air pollutants. The diurnal land/sea breeze pattern common in Ventura County recirculates air contaminants. Air pollutants are pushed toward the ocean during the early morning by the land breeze, and toward the east during the afternoon by the sea breeze. This creates a "sloshing" effect, causing pollutants to remain in the area for several days. Residual emissions from previous days accumulate and chemically react with new emissions in the presence of sunlight, thereby increasing ambient air pollutant levels (VCAPCD, 2003).

The study area typically has average maximum and minimum winter (i.e., January) temperatures of 65 degrees Fahrenheit (ºF) and 46 ºF, respectively, while average summer (i.e., July) maximum and minimum temperatures are 85 ºF and 59 ºF, respectively. Rainfall averages approximately 17 inches per year (Weatherbase, 2014).

Criteria Air Pollutants

The U.S. Environmental Protection Agency (USEPA) has identified criteria air pollutants that are a threat to public health and welfare. These pollutants are called "criteria" air pollutants because standards have been established for each of them to meet specific public health and welfare criteria (see *Regulatory Setting* discussion below). Below are descriptions of criteria pollutants that are a concern in the study area.

Ozone

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Ozone is not emitted directly

into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic compounds (ROC) and nitrogen oxides (NO_x). ROC and NO_x are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours.

Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROC and NO_x under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone.

Nitrogen Dioxide

Nitrogen dioxide (NO_2) is an air pollutant of concern because it acts as a respiratory irritant. NO_2 is a major component of the group of gaseous nitrogen compounds commonly referred to as NO_x. A precursor to ozone formation, NO_x is produced by fuel combustion in motor vehicles, industrial stationary sources (such as industrial activities), ships, aircraft, and rail transit. Typically, NO_x emitted from fuel combustion is in the form of nitric oxide (NO) and NO_2. NO is often converted to NO_2 when it reacts with ozone or undergoes photochemical reactions in the atmosphere.

Particulate Matter

Particulate matter less than 10 microns in diameter (PM_{10}) and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) represent fractions of particulate matter that can be inhaled into air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. According to a study by the California Air Resources Board (CARB), exposure to ambient $PM_{2.5}$, particularly diesel particulate matter (DPM), can be associated with approximately 14,000 to 24,000 premature annual deaths statewide (CARB, 2009). Particulates can also damage materials and reduce visibility.

Toxic Air Contaminants

Toxic Air Contaminants (TACs) are airborne substances that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer-causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes approximately 200 compounds, including DPM emissions from diesel-fueled engines (CARB, 2011).

Valley Fever

San Joaquin Valley Fever (formally known as Coccidioidomycosis) is an infectious disease caused by the fungus *Coccidioides immitis*. San Joaquin Valley Fever is also known as Valley Fever, Desert Fever, or Cocci. Infection is caused by inhalation of *Coccidioides immitis* spores that have become airborne when dry, dusty soil or dirt is disturbed by natural processes such as wind or earthquakes, or by human induced ground disturbing activities such as construction, farming, etc.

There are about 100,000 new cases of Valley Fever per year in the southwestern United States. The average number of reported new cases of Valley Fever in Ventura County before 1994 was 40 per year. In 1994, the year that a large earthquake occurred in Northridge, a city approximately 20 miles east of the Proposed Project area, the number of reported new cases of Valley Fever was 243. This increase was attributed to the great quantities of airborne dust generated by the Northridge earthquake (VCAPCD, 2003). From 1995 to 2002, the number of cases of Valley Fever decreased. The number of cases reported annually during that time period averaged less than 19. However, cases of Valley Fever increased by 600 percent in the spring of 2004, following major wildfires in Ventura County in the fall of 2003 (Ventura County, 2010). The most recent annual average of new cases of Valley Fever in Ventura County reported by the Ventura County Department of Public Health is 56 for the period from 2006 through 2010 (VCHCA, 2011).

Existing Air Quality

The Ventura County Air Pollution Control District (VCAPCD)'s regional monitoring network measures the ambient concentrations of criteria pollutants. Existing levels of air pollutants in the study area can be inferred from ambient air quality measurements conducted by VCAPCD at its closest and most meteorologically representative stations to the study area. The closest and most meteorologically representative air quality monitoring stations are the City of Thousand Oaks Moorpark Road station, approximately 4 miles east-northeast of Newbury Substation, and the Simi Valley Cochran Street station, approximately 12 miles east of Moorpark Substation. The City of Thousand Oaks Moorpark Road station monitors ozone and $PM_{2.5}$ and the City of Simi Valley Cochran Street station monitors ozone, PM_{10}, $PM_{2.5}$, and NO_2. **Table 5.3-1**, *Air Quality Data Summary (2009–2013) for the Study Area*, shows a 5-year summary of ozone and $PM_{2.5}$ data monitored at the City of Thousand Oaks Moorpark Road station and PM_{10} and NO_2 data monitored at the City of Simi Valley Cochran Street station. The data are compared to the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS).

As shown in **Table 5.3-1**, *Air Quality Data Summary (2009–2013) For the Study Area*, the state 1-hour ozone standard was exceeded between zero and nine times per year during the 2009 through 2013 period. The state 8-hour ozone standard was exceeded between one and nine times per year, while the national 8-hour ozone standard was exceeded between zero and six times per year during the 5-year period. The 24-hour state PM_{10} standard was exceeded once in 2009, and there were no exceedances of the national 24-hour PM_{10} standard recorded during the 5-year period. The annual average PM_{10} concentrations exceeded the State standard in 2009 and 2013 during the 5-year study

TABLE 5.3-1
AIR QUALITY DATA SUMMARY (2009–2013) FOR THE STUDY AREA

Pollutant	Standard	Monitoring Data by Year				
		2009	2010	2011	2012	2013
Ozone						
Highest 1-Hour Average (ppm)		0.109	0.104	0.093	0.090	0.099
Days over State Standard	0.09	9	2	0	0	1
Highest 8-Hour Average (ppm)		0.086	0.090	0.079	0.075	0.081
Days over State Standard	0.070	9	9	7	2	1
Days over National Standard	0.075	5	6	1	0	1
Particulate Matter (PM_{10})						
Highest 24-Hour Average ($\mu g/m^3$)		76.8	35.2	45.8	37.9	40.3
Days over State Standard	50	1	0	0	0	0
Days over National Standard	150	0	0	0	0	0
State Annual Average ($\mu g/m^3$)	20	25.5	18.8	19.6	19.5	22.5
Particulate Matter ($PM_{2.5}$)						
Highest 24-Hour Average ($\mu g/m^3$)		21.7	21.7	19.7	41.9	28.7
Days over National Standard	35	0	0	0	1	0
State Annual Average ($\mu g/m^3$)	12	10.8	8.7	8.6	8.9	9.4
Nitrogen Dioxide (NO_2)						
Highest 1-Hour Average (ppm)		0.047	0.069	0.041	0.058	0.043
Days over State Standard	0.18	0	0	0	0	0
Days over National Standard	0.100	0	0	0	0	0
State Annual Average	0.030	0.011	0.010	0.009	0.010	0.009

NOTES: ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.

SOURCE: CARB, 2014a

period. There was a single exceedance of the national $PM_{2.5}$ standard in 2012 and no exceedances of the $PM_{2.5}$ state annual standard during the 5-year period. There were no exceedances of the state or national NO_2 standards during the 5-year study period.

Sensitive Receptors

For the purposes of this air quality analysis, sensitive receptors are generally defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and daycare centers. Occupants of these facilities may show greater than average sensitivity to air pollution due to pre-existing health problems, proximity to emissions sources, and/or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the

infirm are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are also considered sensitive to poor air quality because people usually at stay at these locations for extended periods of time, which results in greater exposure to ambient air quality.

Proposed Project

There are about three dozen residences between 150 feet and 500 feet from Staging Yard 1 at Moorpark Substation. In the vicinity of Hitch Road and west of Citrus Drive, there are approximately 30 homes between 80 feet and 500 feet of Segment 2, and within Santa Rosa Valley, there are approximately 20 residences between 130 feet and 500 feet of Segment 2. There are also 12 residences off Marion Street between 70 feet and 500 feet south of Segment 4, and the Newbury Park Adventist Academy is approximately 500 feet south of Segment 4 off North Wendy Drive.

Regulatory Setting

Air quality within the SCCAB is addressed through the efforts of various federal, state, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The air pollutants of concern and agencies primarily responsible for improving the air quality within the SCCAB and the pertinent regulations are discussed below.

Criteria Air Pollutants

Regulation of air pollution is achieved through both CAAQS and NAAQS as well as emission limits for individual sources of air pollutants. As required by the federal Clean Air Act (CAA), the USEPA has identified criteria pollutants and has established NAAQS to protect public health and welfare. NAAQS have been established for six criteria pollutants: ozone, carbon monoxide (CO), NO_2, sulfur dioxide (SO_2), particulate matter (i.e., PM_{10}, $PM_{2.5}$), and lead. To protect human health and the environment, the USEPA has set "primary" and "secondary" maximum ambient thresholds for these criteria pollutants. Primary thresholds were set to protect human health, particularly sensitive receptors such as children, the elderly, and individuals suffering from chronic lung conditions such as asthma and emphysema. Secondary standards were set to protect the natural environment and prevent further deterioration of animals, crops, vegetation, and buildings.

The NAAQS are defined as the maximum acceptable concentration that may be reached, but not exceeded more than once per year. California has adopted more stringent ambient air quality standards (i.e., CAAQS) for most of the criteria air pollutants. **Table 5.3-2**, State *and National Criteria Air Pollutant Standards, Effects, and Sources,* presents both sets of ambient air quality standards (i.e., national and state) and provides a brief discussion of the related health effects and principal sources for each pollutant. California has also established state ambient air quality standards for sulfates, hydrogen sulfide, and vinyl chloride; however, air emissions of these pollutants are not expected under the Proposed Project or alternatives and are not further discussed in this EIR.

TABLE 5.3-2
STATE AND NATIONAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 Hour 8 Hour	0.09 ppm 0.070 ppm	– 0.075 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when ROC and NO_x react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
Carbon Monoxide (CO)	1 Hour 8 Hour	20 ppm 9.0 ppm	35 ppm 9 ppm	Classified as a chemical asphyxiant, CO interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Incomplete combustion of fuels; primarily from internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide (NO_2)	1 Hour Annual	0.18 ppm 0.030 ppm	0.100 ppm 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide	1 Hour 3 Hour 24 Hour	0.25 ppm – 0.04 ppm	0.075 ppm 0.5 ppm 0.14 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants. Destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Respirable Particulate Matter (PM_{10})	24 Hour Annual	50 µg/m^3 20 µg/m^3	150 µg/m^3 –	May irritate eyes and respiratory tract. Decreases lung capacity; increases cancer and mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
Fine Particulate Matter ($PM_{2.5}$)	24 Hour Annual	– 12 µg/m^3	35 µg/m^3 12.0 µg/m^3	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning. Also, formed from photochemical reactions of other pollutants, including NO_x, SO_2, and organics.
Lead	Monthly Rolling 3-month Average Quarterly	1.5 µg/m^3 – –	– 0.15 µg/m^3 1.5 µg/m^3	Disturbs gastrointestinal system and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing and recycling facilities. Past source: combustion of leaded gasoline.

NOTES: ppm = parts per million; µg/m^3 = micrograms per cubic meter

SOURCES: CARB, 2013 and VCAPCD, 2003

Ventura County is classified as a non-attainment area for the state one-hour ozone standard as well as the state and federal eight-hour ozone standards. Ventura County is also a non-attainment area relative to the state PM_{10} standard. For all other criteria pollutants, Ventura County is either unclassified or classified as attainment with respect to state and federal standards (CARB, 2014b).

Federal

The USEPA is responsible for implementing the programs established under the federal CAA, such as establishing and reviewing the NAAQS and judging the adequacy of state Implementation Plans (SIPs), but has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented.

State

CARB is responsible for establishing and reviewing the state standards, compiling the California SIP and securing approval of that plan from USEPA, conducting research and planning, and identifying TACs. CARB also regulates mobile sources of emissions in California, such as construction equipment, trucks, and automobiles, and oversees the activities of California's air quality management districts, which are organized at the county or regional level.

County or regional air quality management districts are primarily responsible for regulating stationary sources at industrial and commercial facilities within their geographic areas and for preparing the air quality plans that are required under the federal and California CAAs.

California's Diesel Risk Reduction Plan / Diesel Fuel Regulations

As part of California's Diesel Risk Reduction Plan, CARB has passed numerous regulations to reduce diesel emissions from vehicles and equipment that are already in use. Combining these retrofit regulations with new engine standards for diesel fueled vehicles and equipment, CARB intends to reduce DPM emissions by 85 percent from year 2000 levels by 2020. California Diesel Fuel Regulations (13 Cal. Code Regs. §§2281-2285; 17 Cal. Code Regs. §93114) provide standards for diesel fuel.

Ventura County Air Pollution Control District

The Proposed Project and alternatives are located in the SCCAB, which encompasses Ventura, San Luis Obispo, and Santa Barbara counties. The VCAPCD has jurisdiction over the Ventura County portion of the SCCAB. VCAPCD programs include the adoption of regulations and policies, as well as implementation of education and public outreach programs. The VCAPCD is responsible for attaining and/or maintaining air quality in Ventura County within federal and state air quality standards. Specifically, the VCAPCD has the responsibility to monitor ambient air pollutant levels throughout Ventura County and to develop and implement strategies to attain the applicable federal and state standards.

Rule 55 – Fugitive Dust

Rule 55 prohibits emissions of fugitive dust from any applicable source such that the dust remains visible beyond the midpoint (width) of a public street or road adjacent to the property line of the emission source or beyond 50 feet from the property line if there is not an adjacent public street or road. This rule also prohibits emissions of fugitive dust from any applicable source such that the dust causes 20 percent opacity or greater during each observation and the total duration of such observations (not necessarily consecutive) is a cumulative 3 minutes or more in any 1-hour period. The rule prohibits persons from engaging in earth-moving activities in a manner that creates visible dust emissions over 100 feet in length. Additionally, no person shall allow track-out[1] to extend 25 feet or more in length unless at least one of the following three control measures is utilized: 1) track-out area improvement; 2) track out prevention; and 3) track-out removal.

Rule 55.1, Paved Roads and Public Unpaved Roads, requires fugitive dust generators to begin the removal of visible roadway accumulation within 72 hours of any written notification from the VCAPCD. The use of blowers is expressly prohibited under any circumstances. This rule also requires controls to limit the amount of dust from any construction activity or any earthmoving activity on a public unpaved road.

2007 Air Quality Management Plan

The 2007 Ventura County Air Quality Management Plan (2007 AQMP), adopted by the VCAPCD Board on May 13, 2008, presents Ventura County's strategy for attaining the federal 8-hour ozone standard as required by the federal CAA Amendments of 1990. The 2007 AQMP also presents the VCAPCD's Triennial Assessment and Plan Update required by the California Clean Air Act of 1988. The 2007 AQMP contains a Reasonable Further Progress demonstration, a Motor Vehicle Conformity Budget for transportation conformity purposes, an emissions inventory and emission forecasts, and a local control strategy containing several new and "further study" emission control measures. The new control measures are proposed revisions to existing VCAPCD rules that VCAPCD staff has found practicable for Ventura County. The 2007 AQMP also incorporates CARB's State Strategy to achieve the additional emission reductions needed for all areas of the state, including Ventura County, to attain the federal 8-hour ozone standard (VCAPCD, 2008).

2012 Triennial Assessment and Plan Update

The California CAA requires that once every 3 years the state's air districts are to assess their progress towards attaining the state clean air standards, measure the amount of emission reductions achieved over the previous 3-year period, correct any deficiencies in meeting progress goals, and incorporate new data and projections into their clean air plans. The 2012 Triennial Assessment and Plan Update (Triennial Assessment) covers the most recent assessment period of 2009 through 2011. The Triennial Assessment has not identified any deficiencies with respect to meeting progress goals towards the state 1-hour ozone standard. However, the "every feasible

[1] VCAPCD defines track-out as any material that adheres to and agglomerates on the exterior surface or tires of motor vehicles, haul trucks, or mobile equipment that have been released onto a named, numbered, or lettered public paved road and can be removed by a PM10 efficient street sweeper under normal operating conditions.

measure" analysis conducted for the Triennial Assessment identified several existing VCAPCD rules with potential for enhancement. It also identified three possible new control measures that would help Ventura County continue its progress towards attaining the state ozone standards (VCAPCD, 2013).

5.3.2 Significance Criteria

According to Appendix G of the CEQA *Guidelines*, a project would result in significant air quality effects on the environment if it would:

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

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

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

d) Expose sensitive receptors to substantial pollutant concentrations; or

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

5.3.3 Applicant Proposed Measures

Southern California Edison (SCE) has proposed the following applicant proposed measure (APM) to minimize impacts on air quality from the Proposed Project. The impact analysis assumes that the APM would be implemented (i.e., part of the Proposed Project) to reduce impacts to air quality as discussed below.

> **APM AQ-1: Air Quality Protection.** SCE has implemented, and would implement, a number of practices, including minimizing equipment idling time and maintaining equipment engines in good condition and in proper tune as per manufacturers' specifications, to reduce emissions.
>
> SCE's practices for the control of fugitive dust emissions, which were implemented during past construction activities and would be implemented during future construction activities, incorporate many of the recommended measures described in the Ventura County Air Pollution Control District (VCAPCD Model Fugitive Dust Mitigation Plan, which is reproduced verbatim below:[2]
>
> 1. The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.

[2] This text is taken verbatim, including the parenthetical remark "(indicate by whom)", from the Ventura County Air Quality Control District's *Ventura County Air Quality Assessment Guidelines*.

2. Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.

3. Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:

    a. All trucks shall be required to cover their loads as required by California Vehicle Code Section 23114.

    b. All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.

4. Graded and/or excavated inactive areas of the construction site shall be monitored by (indicate by whom) at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.[3]

5. Signs shall be posted on-site limiting traffic to 15 miles per hour or less.[4]

6. During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the APCD in determining when winds are excessive.

7. Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

8. Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.

[3] SCE did not/may not always undertake soil stabilization activities in areas that were/are inactive for more than four days due to prohibition of construction activities to protect nesting birds.

[4] SCE did/will not post speed limit signs along the access roads; the design of the roads are not conducive to travel above 15 mph by the types of vehicles used during past construction activities.

5.3.4 Impacts and Mitigation Measures

Approach to Analysis

This analysis presents the potential air quality impacts associated with the construction, operation, and maintenance of the Proposed Project and alternatives and has been prepared in accordance with the *Ventura County Air Quality Assessment Guidelines* (VCAPCD, 2003). The VCAPCD has adopted CEQA thresholds of significance for long-term project operations for ozone precursors of 25 pounds per day for ROC and 25 pounds per day for NO_x. The VCAPCD has determined that an exceedance of the threshold for either or both of the precursors indicates that a project would individually and cumulatively jeopardize attainment of ozone standards, and would result in a significant adverse impact on air quality. The *Ventura County Air Quality Assessment Guidelines* do not identify significance thresholds for short-term construction emissions and recommend that construction-related ROC and NO_x emissions not be counted towards the two significance thresholds, since these emissions are temporary (VCAPCD, 2003).

The South Coast Air Quality Management District (SCAQMD) is an adjacent air district to VCAPCD with its boundary located approximately 7 miles southeast of Newbury Substation. The SCAQMD has adopted well-defined construction mass emission significance thresholds that are supported by substantial evidence (SCAQMD, 2011). Therefore, the California Public Utility Commission (CPUC) has opted to compare the estimated construction exhaust emissions that would be associated with the Proposed Project and alternatives to SCAQMD's significance thresholds for ozone precursors (i.e., NO_x and volatile organic compounds (VOCs))[5] and particulate matter (i.e., PM_{10} and $PM_{2.5}$) to determine if construction exhaust emissions that would be associated with the Proposed Project could result in a violation of an air quality standard or contribute substantially to an existing or projected air quality violation. Exceedance of any of any of these thresholds would also represent a cumulatively considerable net increase in criteria pollutants. It should be noted that the SCAQMD has also identified construction significance thresholds for sulfur oxides (SO_x), CO, and lead; however, there is a long history of low emissions and associated attainment of ambient air quality standards for these pollutants in Ventura County (VCAPCD, 2013). Construction of the Proposed Project would not generate emissions that could result in or contribute to an exceedance of an ambient air quality standard for any of these pollutants or be cumulatively considerable relative to these pollutants.

To assess the significance of dust related impacts, the VCAPCD recommends minimizing fugitive dust, especially during grading and excavation operations, rather than quantifying fugitive dust emissions (VCAPCD, 2003). Therefore, this analysis applies a qualitative approach to assessment of dust-related emissions relative to whether or not the Proposed Project would include implementation of VCAPCD-recommended dust control measures.

With regard to the potential for the Proposed Project to expose sensitive receptors to substantial pollutant concentrations and odors, given that the diesel combustion emissions that would be associated with the proposed subtransmission line construction activities would proceed at a

[5] For the purposes of this analysis, VOC ozone precursors are assumed to be the same as ROCs ozone precursors.

linear pace, and would not expose any one receptor along the corridors for an extended period of time, these impacts are evaluated qualitatively based on duration of exposure.

a) Conflict with or obstruct implementation of the applicable air quality plan. (No Impact)

The Proposed Project would be located in the SCCAB under the jurisdiction of the VCAPCD. The most recent air quality plan for the Ventura County portion of the SCCAB is the 2007 AQMP, which was released in 2008. Construction of the Proposed Project would be conducted in compliance with applicable federal, state, and local requirements. Long-term operation of the Proposed Project would result in air pollutant emissions from a small amount of worker automobile trips each month and the annual use of a helicopter related to inspection and maintenance purposes. Exhaust emissions from these trips would be negligible (see Impact 5.3-3). Furthermore, the Proposed Project would not induce or cause population growth (see Section 5.14, *Population and Housing*), and therefore would not affect population growth assumptions that were considered when developing the 2007 AQMP. For these reasons, the Proposed Project would not conflict with or obstruct the implementation of the applicable air quality plan (No Impact).

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b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact 5.3-1: Construction activities would generate exhaust emissions that could contribute substantially to a violation of an air quality standard. *Significant and unavoidable* (Class I)

Construction of the Proposed Project would generate emissions of criteria air pollutants over a construction period of approximately 10 months. Exhaust emissions would result from construction equipment and machinery as well as from vehicular traffic generated by construction activities. Emission levels for the various construction activities would vary with the type of equipment, duration of use, operation schedules, and size of the construction labor force.

As part of the CPUC's Permit to Construct application process, SCE provided construction-related air pollutant emissions estimates for the construction activities that would be associated with the Proposed Project (see Appendix D, *Air Quality and Greenhouse Gas Emission Estimates*). The emission estimates were independently reviewed by the CPUC's consultant, Environmental Science Associates (ESA). The Proposed Project emissions were estimated by SCE using the California Emissions Estimator Model (CalEEMod) version 2011.1.1 developed by the SCAQMD. This version of CalEEMod calculates the construction equipment exhaust emissions based on CARB's OFFROAD2007 model equipment emission and load factors. In 2011, CARB released the In-Use Off-road Equipment Inventory Model that includes more accurate equipment load factors that are based on academic studies and data from engine manufacturers. For the In-Use Off-road Equipment Inventory Model, CARB revised its construction equipment load factors, reducing them by 33 percent compared to those associated with the OFFROAD2007

model (CARB, 2010). Therefore, ESA revised SCE's estimated off-road equipment emissions estimates to reflect CARB's updated equipment use factors (ESA, 2015).

To estimate peak daily construction emissions that would be associated with construction of the Proposed Project, a worst-case scenario was developed in order to identify the types of construction activities that could overlap in schedule and would contribute to the combined total maximum daily emissions. Based on SCE's emissions estimates, construction activities associated with right-of-way (ROW) clearing, marshalling yards, roads and landing work, wood pole removal, guard structure installation, removal of conductor from lattice steel towers (LST), LST removal and foundation removal, tubular steel pole (TSP) installation, light weight steel (LWS) pole installation, improvements at Moorpark Substation, and improvements at Newbury Park Substation could be undertaken during the same time periods, representing the peak day construction scenario.

Table 5.3-3, *Proposed Project Peak Day Construction Exhaust Emission Estimates*, presents the estimated peak day construction exhaust emissions that would be associated with the Proposed Project. These emissions would be dispersed throughout the study area along the proposed subtransmission alignment, as well as along the roads that would be used to access the Proposed Project. TSP foundation installation, and TSP hauling, assembly, and erection would generate the most air pollution among all construction activity sources associated with the peak day of construction under the Proposed Project.

TABLE 5.3-3
PROPOSED PROJECT PEAK DAY CONSTRUCTION EXHAUST EMISSION ESTIMATES

	Peak Day Exhaust Emissions (lb/day)			
Emission Sources	**ROC**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
ROW Clearing	5.04	39.29	1.78	1.78
Marshalling Yards	1.60	12.57	0.47	0.47
Roads and Landing Work	3.06	25.10	0.92	0.92
Wood Pole Removal	2.66	22.06	0.80	0.80
Guard Structure Installation	2.68	22.20	0.80	0.80
Removal of Conductor from LST	6.48	54.96	1.88	1.88
LST Removal and Foundation Removal	3.81	30.39	1.30	1.30
TSP Foundation Installation, and TSP Hauling, Assembly, and Erection	7.67	63.42	2.33	2.33
LWS Pole Haul, Assembly, and Installation	6.16	51.21	1.88	1.88
Moorpark Substation: Electrical, Wiring, Testing/Maintenance Improvements	1.74	11.47	0.81	0.81
Newbury Park Substation: Electrical, Wiring, Testing/Maintenance Improvements	1.83	13.13	0.84	0.84
Total Maximum Daily Emissions	42.74	345.80	13.81	13.81
Significance Thresholds	75	100	150	55
Significant Impact?	No	**Yes**	No	No

NOTES: See Appendix D for all assumptions and emissions factors used to estimate the peak day construction emissions for the Proposed Project.

As indicated in Table 5.3-3, *Proposed Project Peak Day Construction Exhaust Emission Estimates*, Proposed Project construction-related peak day NO_x emissions would be approximately 346 pounds, which would be more than the significance threshold, resulting in a significant impact. Therefore, implementation of Mitigation Measure 5.3-1, which requires the use of available construction equipment that meets the highest USEPA-certified tiered emission standards, would be required. It should be noted that these emissions are projected to occur on a single day. Construction NO_x emissions on the next highest day would be approximately 268 pounds, and the average daily NO_x emissions over the duration of construction activities would be approximately 131 pounds.

With regard to the estimated ROC, PM_{10}, and $PM_{2.5}$ exhaust emissions presented in Table 5.3-3, *Proposed Project Peak Day Construction Exhaust Emission Estimates*, these mass emissions would not exceed any of the significance thresholds. Therefore, ROC, PM_{10}, and $PM_{2.5}$ exhaust emissions generated by the Proposed Project would not be expected to violate any air quality standard or contribute substantially to an existing or projected air quality violation. Impacts associated with the generation of ROC, PM_{10}, and $PM_{2.5}$ exhaust emissions would therefore be less than significant.

> **Mitigation Measure 5.3-1:** For diesel-fueled off-road construction equipment of more than 50 horsepower, SCE shall make a good faith effort to use available construction equipment that meets the highest USEPA-certified tiered emission standards. An Exhaust Emissions Control Plan that indentifies each off-road unit's certified tier specification and Best Available Control Technology (BACT) shall be submitted to the CPUC for review and approval at least 30 days prior to commencement of construction activities. Construction activities cannot commence until the plan has been approved. For all pieces of equipment that would not meet Tier 3 emission standards, the Exhaust Emissions Control Plan shall include documentation from two local heavy construction equipment rental companies that indicates that the companies do not have access to higher-tiered equipment for the given class of equipment.

Implementation of Mitigation Measure 5.3-1 would reduce the Proposed Project-related NO_x exhaust emissions identified in Table 5.3-3, *Proposed Project Peak Day Construction Exhaust Emission Estimates*. While implementation of Mitigation Measure 5.3-1 would reduce NO_x emissions to the maximum extent feasible, the availability of construction equipment that meets the highest USEPA-certified tiered emission standards is currently unknown. As a result, it cannot be established at this time that implementation of Mitigation Measure 5.3-1 would reduce NO_x emissions to below the significance threshold. The construction-related NO_x impact would remain significant and unavoidable even with incorporation of mitigation.

NO_x emissions are a concern as an ozone precursor. The health implications of this significant impact to regional air quality would coincide with any increased violations of the air quality standards for ozone. As noted previously (Section 5.3.1, *Setting*), elevated ozone concentrations can cause adverse effects on human health, including the aggravation of existing respiratory diseases such as asthma, bronchitis, and emphysema. However, the extent to which these significant ozone precursor emissions would result in adverse health effects is not readily quantifiable on a local scale because by its very nature, ozone is a regional pollutant in that it can be formed miles away and hours after the ozone precursor emissions are generated.

Significance after mitigation: Significant and unavoidable.

Impact 5.3-2: Construction activities would generate fugitive dust emissions that could contribute substantially to an existing or projected air quality violation. ***Less than significant with mitigation*** **(Class II)**

Construction-related activities would generate dust from earthmoving, excavation, vehicle travel on paved and unpaved surfaces, and other activities over the 10-month construction period. Emissions of fugitive dust would vary according to the level and type of construction activity, silt content of soil, and prevailing weather. While most of the heavier dust particles would settle on or near the construction site, smaller dust particles would tend to remain suspended longer in the air, increasing particulate levels in the vicinity of the Proposed Project.

The *Ventura County Air Quality Assessment Guidelines* recommend that lead agencies for projects that could generate fugitive dust emissions in such quantities as to cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public, or which may cause, or have a natural tendency to cause injury or damage to business or property, identify the project as one that would cause a significant adverse air quality impact. To assess the significance of dust related impacts, the VCAPCD recommends that lead agencies require projects to minimize fugitive dust, especially during grading and excavation operations, rather than quantifying fugitive dust emissions.

SCE has committed to implementing APM AQ-1, which indicates that SCE would apply many of the recommended measures described in the VCAPCD model Fugitive Dust Mitigation Plan. However, APM AQ-1 does not identify which control measures would be implemented and does not specifically require the implementation of the measures. Therefore, to strengthen the intent of APM AQ-1, Mitigation Measure 5.3-2, which defines the VCAPCD dust control measures, would be implemented to insure that the Proposed Project would not result in a significant impact related to the generation of fugitive dust. It should be noted that VCAPCD dust control components 4 and 5 have been modified in Mitigation Measure 5.3-2 to: 1) allow for flexibility in implementation of the measure given the potential for non-work buffer areas to be established to protect nesting birds pursuant to implementation of APM BIO-4 (see Section 5.4.3, *Biological Resources*); and 2) require that Proposed Project vehicle speeds on access roads would not exceed 15 miles per hour rather than simply requiring the posting of speed limit signs.

> **Mitigation Measure 5.3-2:** SCE shall reduce construction-related fugitive dust emissions by implementing the following VCAPCD dust control measures. SCE shall require all contractors to comply with the following requirements:
>
> 1. The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.

2. Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.

3. Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:

    a. All trucks shall be required to cover their loads as required by California Vehicle Code Section 23114.

    b. All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.

4. Graded and/or excavated inactive areas of the construction site shall be monitored by SCE's mitigation monitor at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over 4 days as long as there are no prohibitions of construction activities in the area to protect nesting birds. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.

5. All traffic on dirt access roads shall be limited to a speed of 15 miles per hour or less.

6. During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the APCD in determining when winds are excessive.

7. Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

8. Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.

Significance after mitigation: Less than significant.

Impact 5.3-3: Operation and maintenance activities would generate emissions of criteria pollutants. *Less than significant* (Class III)

Operation and maintenance of the Proposed Project would not result in new stationary sources of criteria pollutants nor would it increase criteria pollutant emissions from existing stationary

sources. Mobile source emissions-related activities associated with Proposed Project operation would be limited to up to 15 maintenance and inspection trips per month and an annual inspection using a helicopter. Operation and maintenance emissions have been estimated by ESA using CARB's EMFAC 2014 model emission factors for light duty trucks and helicopter emissions factors obtained from the Emissions and Dispersion Modeling System (EDMS) version 5.1.4.1. **Table 5.3-4** presents the estimated peak day operation and maintenance exhaust emissions that would be associated with the Proposed Project (see Appendix D for all assumption used to estimate the Proposed Project operation and maintenance emission).

TABLE 5.3-4
PROPOSED PROJECT PEAK DAY OPERATION AND MAINTENANCE EXHAUST EMISSION ESTIMATES

	Peak Day Exhaust Emissions (lb/day)			
Emission Sources	**ROC**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
Light-duty trucks – maintenance and inspections	0.09	0.34	0.08	0.03
Helicopter - inspections	8.47	0.81	0.27	0.27
Total Maximum Daily Emissions	8.56	1.15	0.35	0.3
Significance Thresholds	25	25	---	---
Significant Impact?	No	No	No	No

NOTES: See Appendix D for all assumptions and emissions factors used to estimate the peak day operation and maintenance emissions for the Proposed Project.

These emissions would not exceed the VCAPCD operational significance thresholds. Therefore, criteria pollutant emissions that would be generated by operation and maintenance of the Proposed Project would not be expected to contribute substantially to a violation of an air quality standard and the associated impact would be less than significant.

Mitigation: None required.

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

Ventura County is designated as non-attainment for ozone and PM_{10}. Long term operation of the Proposed Project would result in emissions of ozone precursors (NO_x and ROC) and PM_{10}, which would not exceed the operational significance thresholds (see discussion for Impact 5.3-3). The VCAPCD has determined that an exceedance of a threshold indicates that a project would cumulatively jeopardize attainment of standards. Therefore, Proposed Project long-term emissions would not be cumulatively considerable and the associated cumulative impact would not be significant.

Impact 5.3-4: Construction activities would result in emissions of NO_x that would be cumulatively considerable. *Significant and unavoidable* (Class I)

Construction activities associated with the Proposed Project, as described in the Impacts 5.3-1 and 5.3-2 discussions, could have a temporary adverse effect on regional air quality through short-term increases in ozone precursors, which could be cumulatively significant when combined with other projects described in Section 7.1, *Projects Considered in the Cumulative Analysis*.

The VCAPCD has determined that an exceedance of a threshold indicates that a project would cumulatively jeopardize attainment of standards. Proposed Project exhaust emissions of ROC, PM_{10}, and $PM_{2.5}$ would not exceed the significance thresholds; therefore, Proposed Project-related ROC, PM_{10}, and $PM_{2.5}$ emissions would not be cumulatively considerable and the associated cumulative impacts would be less than significant. Mitigation Measure 5.3-1 would help reduce NO_x emissions; however, NO_x emissions could continue to exceed the VCAPCD significance threshold. Therefore, emissions of NO_x during construction of the Proposed Project would be cumulatively considerable and when combined with emissions from other projects would represent a cumulative impact on air quality that would be significant and unavoidable.

To assess the significance of construction-related dust in the form of PM_{10}, the VCAPCD recommends minimizing project-related fugitive dust rather than quantifying the associated PM_{10} emissions. Implementation of Mitigation Measure 5.3-2 would ensure that PM_{10} emissions that would be associated with construction of the Proposed Project would be minimized to the extent that the emissions would not be cumulatively considerable. Therefore, PM_{10}-related cumulative impacts on air quality from the Proposed Project and other projects would less than significant.

> **Mitigation:** Implement Mitigation Measures 5.3-1 (Construction Equipment NO_x Reductions) and 5.3-2 (Fugitive Dust Mitigation Plan).

Implementation of Mitigation Measures 5.3-1 and 5.3-2 would reduce emissions of criteria pollutants; however, not all potential significant impacts from construction emissions would be mitigated to a less-than-significant level. Therefore, when considered with other projects, construction of the Proposed Project would result in a cumulatively considerable net increase in NO_x emissions and the associated cumulative impact would be significant and unavoidable (Class I).

Significance after mitigation: Significant and unavoidable.

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d) Expose sensitive receptors to substantial pollutant concentrations.

Impact 5.3-5: Construction activities would generate emissions of Toxic Air Contaminants (TACs), potentially exposing sensitive receptors to harmful pollutant concentrations. *Less than significant* (Class III)

Particulate exhaust emissions from diesel-fueled engines (DPM) were identified as a TAC by CARB in 1998. Construction of the Proposed Project would result in temporary and short-term

generation of DPM emissions from the use of off-road diesel equipment and from construction material deliveries and debris hauling using on-road heavy-duty trucks. Long-term sources of DPM emissions that would be associated with the Proposed Project would be negligible and limited to up to 15 off-site truck trips per month related to inspection and maintenance activities. It is assumed that helicopters that would be used to inspect the subtransmission line would be fueled with aviation gasoline.

The dose to which receptors are exposed is the primary factor affecting health risk from TACs. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period when assessing TACs (such as DPM) that have only cancer or chronic non-cancer health effects (OEHHA, 2003). However, such health risk assessments should be limited to the duration of the emission-producing activities associated with the Proposed Project.

The majority of Proposed Project DPM emissions would be associated with subtransmission line construction, which would proceed at a linear pace and would not be expected to expose any one receptor along the corridors for longer than 2 weeks. Because the total emissions and duration of exposure at any one sensitive receptor location would be relatively minor compared to the 70-year exposure used in health risk assessments, the health risk from the short-term DPM emissions that would be associated with construction of the Proposed Project would be negligible, and this impact would be less than significant.

Mitigation: None required.

Impact 5.3-6: Construction activities could expose local sensitive receptors to *coccidioides immitis* spores. *Less than significant* (Class III)

Construction activities that include ground disturbance would have the potential to release *coccidioides immitis* spores. However, it is likely that much of the population of Ventura County has already been exposed to Valley Fever and would continue to be exposed because of the various earthmoving activities that have historically occurred and continue to occur as a result of agricultural and construction activities throughout the region. As a result of the endemic nature of the disease and the number of earthmoving activities in the County (e.g., grading and excavation for agriculture, as well as new residential, commercial, and industrial development, and surface mining operations), there are new cases of Valley Fever documented in the County each year; however, many people who are exposed do not develop symptoms.

Valley Fever-related impacts associated with the Proposed Project would not be considered significant because ongoing ground-disturbing activities in the County currently represent a continual source of spores that contribute to the low number of Valley Fever cases reported each year. Construction activities associated with the Proposed Project would result in similar

localized ground disturbing activities to those that occur continually within the County and the Proposed Project would not result in a substantial increase in spore release. In addition, based on analysis by the Centers for Disease Control and Prevention of the Valley Fever outbreak associated with the January 1994 Northridge earthquake, as well as a subsequent outbreak following the wildfires in the fall of 2003, a major ground-disturbing event (e.g., another major earthquake or wildfire) is required to release a large number of spores over a wide area for a significant outbreak of Valley Fever to occur. Construction of the Proposed Project would not be a major ground disturbing event that could release a large number of spores. Therefore, construction of the Proposed Project would not represent an increased risk to public health. In addition, implementation of Mitigation Measure 5.3-2 (see above), which requires implementation of VCAPCD fugitive dust control measures, would ensure that fugitive dust that could contain *coccidioides immitis* spores would be controlled to the maximum extent feasible. Valley Fever-related impacts would be less than significant.

Mitigation: None required.

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

Impact 5.3-7: Construction and operation would not create objectionable odors. *Less than significant* (Class III)

Operation of the Proposed Project would not create odorous emissions. However, Proposed Project construction would include sources, such as diesel equipment, which could result in the creation of objectionable odors. Since the construction activities would be temporary and spatially dispersed, and would generally take place in rural areas, these activities would not affect a substantial number of people. Therefore, impacts from odors generated by construction of the Proposed Project would be less than significant.

Mitigation: None required.

5.3.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the construction, operation, and maintenance-related impacts that would result under the Proposed Project, as discussed in Section 5.3.4, would not occur. There would be no impact under No Project Alternative 1.

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would

be removed, with the exception of the previously installed LWS poles and energized conductor. The 22 TSPs, a partial TSP, 30 TSP foundations, and three TSP foundation holes filled with slurry would be removed. Infrastructure removal under No Project Alternative 2 would generate pollutant emissions from construction equipment over a period estimated to be approximately 5 months. Short-term exhaust emissions would result from construction equipment and machinery as well as from vehicular traffic generated by construction activities. There would be no emissions associated with long-term operation or maintenance under No Project Alternative 2. Estimated emissions that would be associated with No Project Alternative 2 were estimated by ESA based on emissions of similar construction phases associated with the Proposed Project, adjusted to No Project Alternative 2 assumptions. See Appendix D for all assumptions used to estimate No Project Alternative 2 emissions.

Table 5.3-5, *No Project Alternative 2 Peak Day Construction Exhaust Emission Estimates***,** presents the peak day estimated air pollutant exhaust emissions that would be associated with infrastructure removal under No Project Alternative 2, generated by off-road construction equipment and on-road vehicles. As shown in the table, construction activities associated with roads and landing work; marshalling yards; TSP pole, foundation, and slurry removal; removal of conductor on LWS poles; removal of improvements at Moorpark Substation; and removal of improvements at Newbury Park Substation could overlap in schedule, representing the peak day construction scenario.

TABLE 5.3-5
NO PROJECT ALTERNATIVE 2 PEAK DAY CONSTRUCTION EXHAUST EMISSION ESTIMATES

Emission Sources	Peak Day Emissions (lb/day)			
	ROC	NO_x	PM_{10}	$PM_{2.5}$
Roads and Landing Work	3.06	25.10	0.92	0.92
Marshalling Yard	1.60	12.57	0.47	0.47
TSP Pole Removal	4.93	41.65	1.54	1.54
TSP Foundation and Slurry Removal	1.80	13.77	0.62	0.62
Removal of Conductor on LWS Poles	6.48	54.96	1.88	1.88
Removal of Infrastructure at Moorpark Substation - wiring	0.07	0.74	0.02	0.02
Removal of Infrastructure at Moorpark Substation - Civil	4.21	32.51	1.23	1.23
Removal of Electrical Infrastructure at Newbury Park Substation	0.16	2.40	0.05	0.05
Removal of Infrastructure at Newbury Substation - Civil	4.21	32.51	1.23	1.23
Total Maximum Daily Emissions	26.53	216.22	7.97	7.97
Significance Thresholds	75	100	150	55
Significant Impact?	No	**Yes**	No	No

NOTES: See Appendix D for all assumptions and emissions factors used to estimate the peak day construction emissions for the No Project Alternative 2.

As indicated in Table 5.3-5, *No Project Alternative 2 Peak Day Construction Exhaust Emission Estimates*, No Project Alternative 2 construction-related maximum day NO_x exhaust emissions would be approximately 216 pounds, which would be less emissions than would occur under the

Proposed Project, but would exceed the significance threshold, resulting in a significant impact. Therefore, implementation of Mitigation Measure 5.3-1, which requires the use of available construction equipment that meets the highest USEPA-certified tiered emission standards, would be required. While implementation of Mitigation Measure 5.3-1 would reduce NO_x emissions to the maximum extent feasible, the availability of construction equipment that meets the highest USEPA-certified tiered emission standards is currently unknown. As a result, it cannot be established at this time that implementation of Mitigation Measure 5.3-1 would reduce NO_x emissions to below the significance threshold. The construction-related NO_x impact under the No Project Alternative 2 would remain significant and unavoidable even with incorporation of mitigation (Class I).

Mitigation Measure 5.3-2, which defines the VCAPCD dust control measures, would be required to be implemented to insure that No Project Alternative 2 would not result in a significant impact related to the generation of fugitive dust (Class II). Local health risk and odor impacts that would be associated with No Project Alternative 2 would be negligible given the limited exposure periods of sensitive receptors to construction emissions. Same as described for the Proposed Project, local health risk and odor impacts under No Project Alternative 2 would be less than significant (Class III).

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5.4 Biological Resources

5.4.1 Setting

This section describes the existing environment for wildlife, botanical, and wetland resources for the Proposed Project and alternatives. In addition to the alignments, the setting considers Proposed Project marshalling areas, access roads, and ancillary facilities (the Proposed Project area), as well as the larger area, including adjacent habitat, that could reasonably be affected by Proposed Project activities (the study area).

The setting information presented herein was compiled from available scientific literature and database searches, coordination with resource experts, in-house staff expertise, and multi-year field surveys. In addition, a field reconnaissance survey of the Proposed Project area was performed by an Environmental Science Associates (ESA) wildlife biologist on December 6, 2013, to verify conditions described in the Proponent's Environmental Assessment (PEA).

Regional Setting

The Proposed Project and alternatives are located in southeast unincorporated Ventura County (the County) in the Conejo Hills, the Las Posas Hills, and the intervening Santa Rosa Valley. Portions of the Proposed Project and alternatives are situated in the cities of Moorpark and Thousand Oaks (see Figure 3-1, *Proposed Project Segments and Substations*) on the Moorpark and Newbury Park United States Geological Survey (USGS) 7.5-minute topographic quadrangles. The Proposed Project region is within the California Floristic Provence, Southwestern California region, which includes portions of the San Gabriel and Tehachapi Mountains within the Western Transverse Ranges and South Coast subregions (Hickman, 1993). Soils are dominated by Gilroy very rocky clay loam, Hambright very rocky loam, and igneous rock land, but also include badland, Castaic-Balcom complex, Cropley clay, Diablo clay, Gilroy clay loam, and San Benito clay loam (SCE, 2013a). The landscape is composed of open, natural areas, agriculture, and urban development set within a hilly topography with elevations that range between 250 and 900 feet above mean sea level. Average annual rainfall for this area is approximately 17 inches (Weatherbase, 2014).

Natural Communities and Wildlife Habitat

Vegetation Community Descriptions

Vegetation communities are assemblages of plant species that occur together in the same area, which are defined by species composition and relative abundance. To characterize plant communities, a 50-foot buffer along each side of the Proposed Project alignment was established as a study area, including staging and laydown areas (BonTerra, 2008; 2010a). Vegetation series within the study area were then mapped by Southern California Edison (SCE) according to the Ventura County vegetation classification system, which closely approximates the Sawyer, et al. (2009) classification system presented in **Table 5.4-1**, *Vegetation Communities along the Study Area*. Table 5.4-1 identifies the 10 vegetation alliances described by Sawyer, et al. (2009) to occur in the study area for the Proposed Project, along with areas classified by Ventura County as

TABLE 5.4-1
VEGETATION COMMUNITIES ALONG THE STUDY AREA

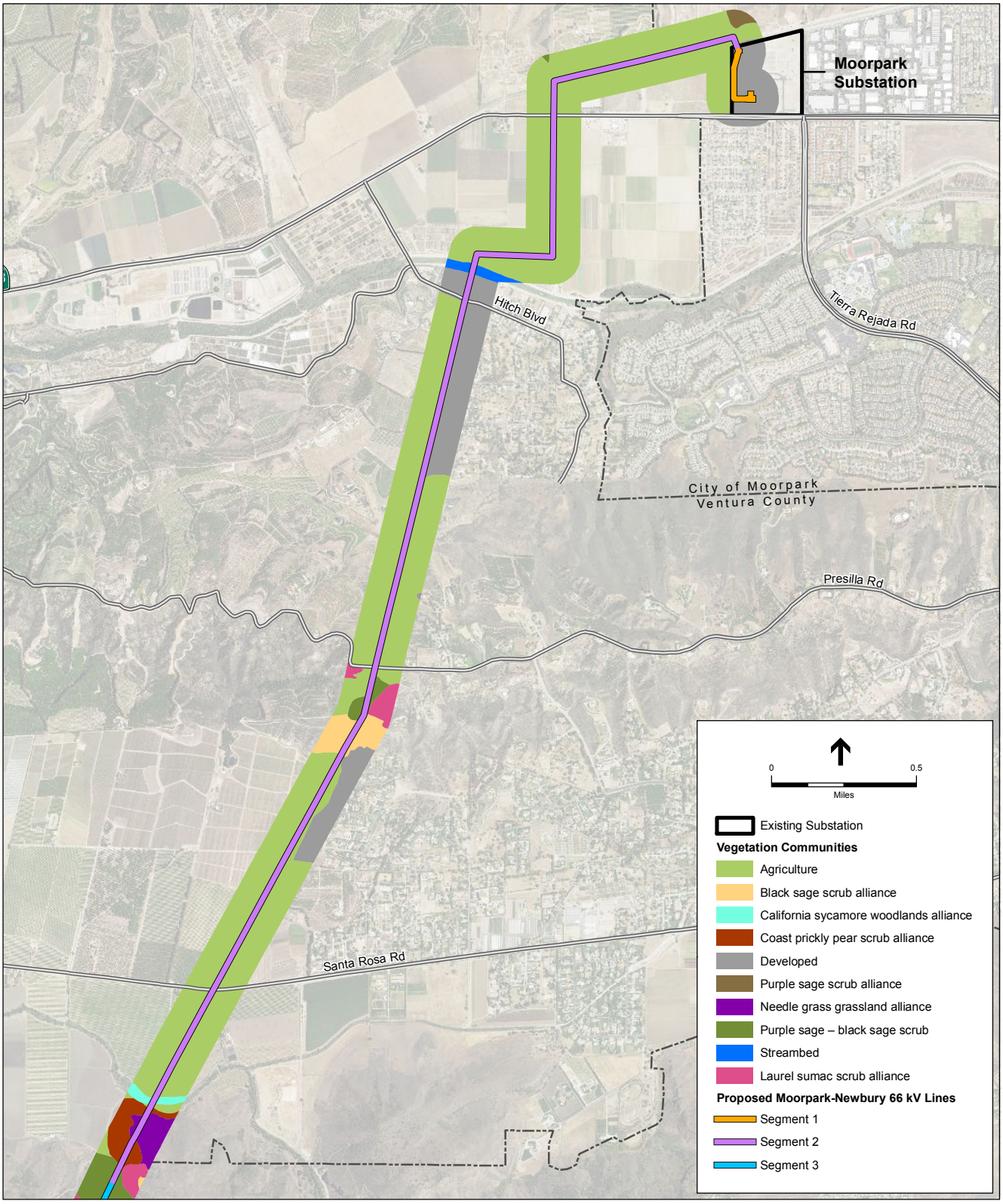
Vegetation Community	Acres
Agriculture	420.7
Purple sage scrub alliance	108.7
Developed	106.0
Coast prickly pear scrub alliance[a]	97.1
Purple sage – black sage scrub[b]	57.7
Laurel sumac scrub alliance	44.5
Big pod ceanothus chaparral alliance	39.2
Needle grass grassland alliance[a,c]	27.5
Black sage scrub alliance	14.0
California sycamore woodlands alliance[a]	13.3
California sagebrush – California buckwheat scrub alliance	10.2
Streambed	4.5
Hoary leaf ceanothus alliance	1.7
Total	***945.1***

[a] These Alliances are designated by the California Department of Fish and Wildlife (CDFW) as Sensitive Natural Communities (CDFW, 2010).
[b] This Alliance does not appear in Sawyer, et al. (2009) but the vegetation community was described by as a black sage- purple sage shrubland association in the PEA (SCE, 2013a); acreages were also provided in the PEA, and so no attempt was made to redistribute these acreages among the purple sage scrub and black sage scrub Alliances described by Sawyer, et al. (2009).
[c] Ventura County mapped these areas as purple needle grass grassland (SCE, 2013a), which would be classified as purple needle grass grassland alliance and which is designated as a special-status natural community by the CDFW. However, botanical surveys performed for the Proposed Project did not identify purple needle grass in these locations, but identified foothill needle grass and nodding needle grass (SCE, 2013a). The foothill needle grass and nodding needle grass alliances are recognized as sensitive natural communities by the CDFW.

SOURCES: SCE, 2013a; CDFW, 2010

developed (urban), agriculture, and streambed. The acreages for each community type in the study area are also provided in Table 5.4-1. The distribution of these natural communities and developed areas was described in the PEA (SCE, 2013a) and generally verified by the ESA biologist during the biological reconnaissance survey.

Vegetation types in the study area, in order of most to least abundant cover type, are: agriculture (45 percent); purple sage scrub alliance (12 percent); developed (11 percent); coast prickly pear scrub alliance (10 percent); purple sage – black sage scrub (6 percent); laurel sumac scrub alliance (5 percent); big pod ceanothus chaparral alliance (4 percent); purple needle grass grassland alliance (3 percent); black sage scrub alliance (2 percent); California sycamore woodlands alliance (1 percent); California sagebrush – California buckwheat scrub alliance (1 percent); streambed (less than 1 percent); and hoary leaf ceanothus alliance (less than 1 percent) (SCE, 2013a). Vegetation communities identified in the study area are described below and displayed in **Figure 5.4-1**, *Vegetation Communities in the Proposed Project Vicinity for Segments 1 and 2*, and **Figure 5.4-2**, *Vegetation Communities in the Proposed Project Vicinity for Segments 3 and 4*.

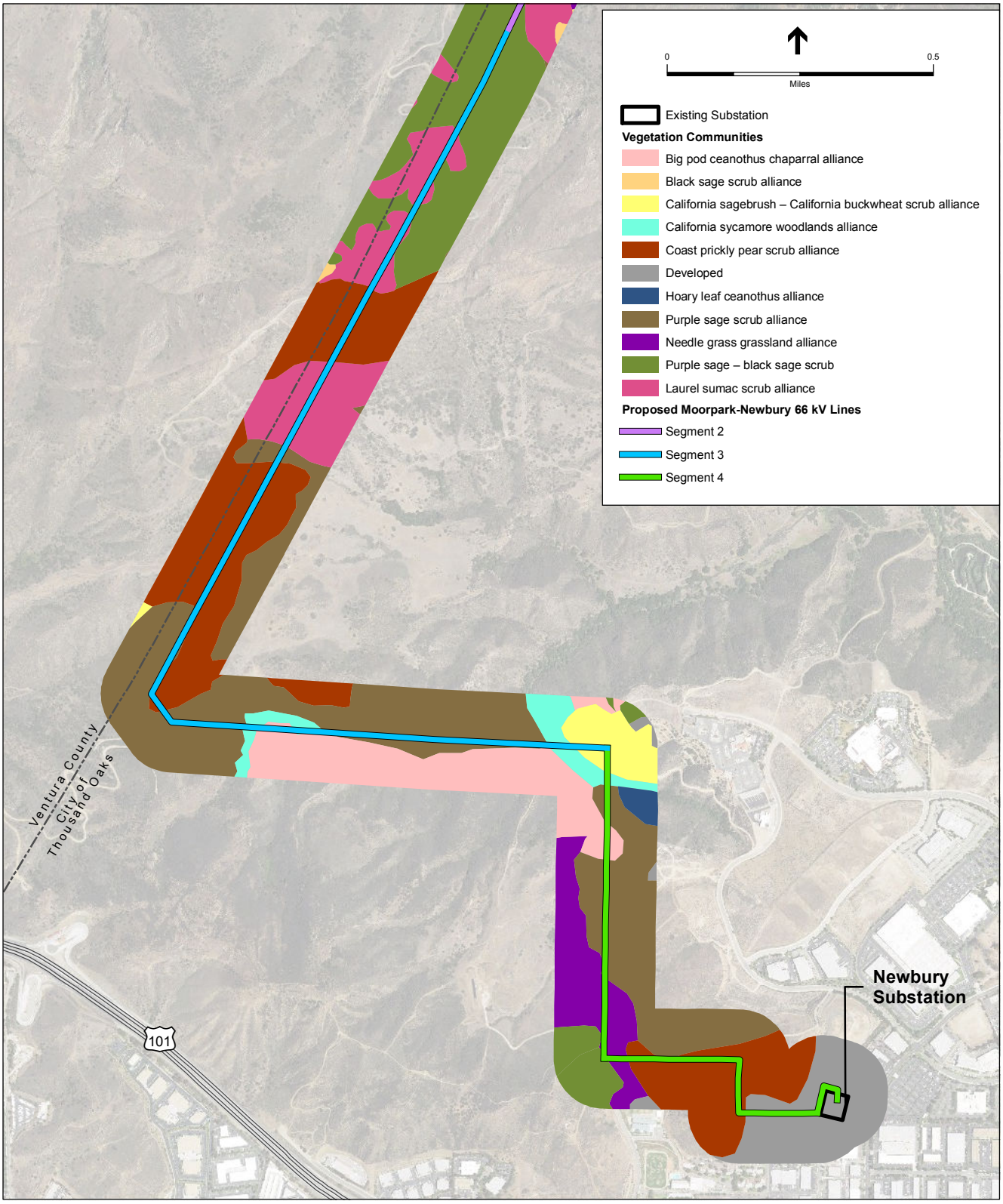


SOURCE: SCE, 2013 and 2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.4-1

Vegetation Communities in the Proposed Project Vicinity for Segments 1 and 2



SOURCE: SCE, 2013 and 2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.4-2

Vegetation Communities in the Proposed Project Vicinity for Segments 3 and 4

These vegetation communities also share a relationship with wildlife habitat types, which were generally classified and evaluated using CDFW's *Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, 1988).

Agriculture

Agricultural areas dominate the landscape in the vicinity of Segment 2 where citrus orchards, avocado orchards, and commercial plant nurseries are prevalent between Los Angeles Avenue and Santa Rosa Road. Approximately 421 acres of agricultural lands occur in the Proposed Project study area (see Table 5.4-1).

Sage scrub

Sage scrub vegetation covers approximately 288 acres in the Proposed Project study area, mostly within the vicinity of Segments 2, 3, and 4 (Table 5.4-1) (SCE, 2013a). Sage scrub along the Proposed Project alignment includes the purple sage scrub alliance, purple sage - black sage scrub, black sage scrub alliance, California sagebrush - California buckwheat scrub alliance, and coast prickly pear scrub alliance. While vegetation alliances indicate which plant species are dominant, the following species are characteristic of sage scrub: purple sage (*Salvia leucophylla*); black sage (*Salvia mellifera*); California sagebrush (*Artemisia californica*); California buckwheat (*Eriogonum fasciculatum*); and coast prickly pear (*Opuntia littoralis*); rosemary flat-top buckwheat (*Eriogonum fasciculatum* var. *polifolium*); gray coast buckwheat (*Eriogonum cinereum*); bladderpod (*Isomeris arborea*); bush sunflower (*Encelia californica*); lemonadeberry (*Rhus integrifolia*); coyote brush (*Baccharis pilularis*); western poison oak (*Toxicodendron diversilobum*); bush monkeyflower (*Mimulus aurantiacus*); laurel sumac (*Malosma laurina*); and deerweed (*Lotus scoparius*).

Developed

Rural residential areas compose most of the developed cover type within the Proposed Project study area, but this cover type also includes the Moorpark and Newbury Substations, and a nearby railroad alignment. Approximately 106 acres within the Proposed Project study area are developed (see Table 5.4-1).

Chaparral

The chaparral cover type within the Proposed Project study area includes the big pod ceanothus chaparral alliance, hoary leaf ceanothus alliance, and laurel sumac scrub alliance. Together these vegetation communities total approximately 85 acres within the Proposed Project study area, and are most prevalent in Segments 3 and 4 (see Table 5.4-1). While vegetation alliances indicate which plant species are dominant, the following species are characteristic of chaparral: big pod ceanothus (*Ceanothus megacarpus*); hoary leaf ceanothus (*Ceanothus crassifolius*); laurel sumac; chamise (*Adenostoma fasciculatum*); lemonadeberry; elderberry (*Sambucus mexicana*); and toyon (*Heteromeles arbutifolia*).

Native Grassland

Native grassland covers approximately 28 acres within the Proposed Project study area (see Table 5.4-1). SCE notes that Ventura County mapped these areas as purple needle grass (*Nassella pulchra*) grassland (SCE, 2013a), which would be classified as purple needle grass grassland

alliance. However, botanical surveys performed in support of the Proposed Project did not identify purple needle grass in these locations, but did identify foothill needle grass (*Nassella lepida*) and nodding needle grass (*Nassella cernua*) (SCE, 2013a). All are native grassland species classified into their own alliances, including: purple needle grass grassland alliance; foothill needle grass grassland alliance; and nodding needle grass grassland alliance.

Streambed and Riparian

Four streambed features are located along the Proposed Project alignment and support varying degrees of riparian vegetation. Riparian vegetation communities are stream-dependent, and within the Proposed Project study area are dominated by the growth of California sycamore (*Platanus racemosa*) and classified as California sycamore woodlands alliance. Ventura County identifies streambed as a land cover type, and it encompassing approximately 5 acres within the Proposed Project study area, while the associated riparian community of California sycamore woodlands alliance comprises approximately 13 acres (see Table 5.4-1) (SCE, 2013a). California sycamore is associated with both perennial and ephemeral streambeds in the Proposed Project study area: Arroyo Santa Rosa in Segment 2, and an unnamed tributary to Conejo Creek in Segment 3. In Arroyo Santa Rosa, willow trees (*Salix* spp.), mule fat (*Baccharis salicifolia*), and giant reed (*Arundo donax*) are co-dominants with the California sycamore woodlands alliance (SCE, 2013a). The other two streambeds do not support riparian vegetation; Arroyo Simi in Segment 2 is an engineered and regularly maintained flood control channel that contains minimal woody vegetation, and also located in Segment 2 is an unnamed drainage ditch with downstream connectivity to Arroyo Simi that supports the growth of coyote brush, an upland species.

Vegetation Communities in the Proposed Project Study Area

Moorpark Substation (Segment 1)

The Moorpark Substation is a developed lot with existing electrical infrastructure and a security fence around the substation. Pine (*Pinus* sp.) and California pepper (*Schinus molle*) trees line the fence perimeter (Figure 5.4-1 *Vegetation Communities in the Proposed Project Vicinity for Segments 1 and 2*). Except for the screening trees lining the perimeter, no vegetation occurs within the substation; the dirt ground between paved access roads is graded and heavily compacted.

Northern Alignment (Segment 2)

The 5-mile Segment 2 alignment begins at the Moorpark Substation and extends south across the Little Simi Valley to the Las Posas Hills, then south across the Santa Rosa Valley to the Calleguas hills. Agricultural and developed areas dominate the Little Simi Valley. Streambeds associated with Arroyo Simi and an unnamed tributary to Arroyo Simi are traversed through Little Simi Valley. Agricultural and developed areas are prevalent in the Las Posas Hills, but the purple sage scrub alliance and the coast prickly pear scrub alliance are also encountered on the south-facing hillslopes. The Santa Rosa Valley is also dominated by agricultural and developed areas, though upon approaching the Calleguas Hills, the following cover types and vegetation communities are encountered: the streambed associated with Arroyo Santa Rosa; the stream-dependent California sycamore woodlands alliance; needle grass grassland alliance; and coast

prickly pear scrub alliance (Figure 5.4-1, *Vegetation Communities in the Proposed Project Vicinity for Segments 1 and 2*).

Southern Alignment (Segment 3)

Segment 3 begins at the northern base of the Calleguas hills and extends south through their interior towards the Conejo Valley. The Calleguas hills support a rich diversity of vegetation communities, and the proposed alignment would traverse the coast prickly pear scrub alliance, laurel sumac scrub alliance, purple sage scrub alliance, mixed purple and black sage community, big pod ceanothus chaparral alliance, California sagebrush – California buckwheat scrub alliance, and the California sycamore woodlands alliance (Figure 5.4-2, *Vegetation Communities in the Proposed Project Vicinity for Segments 3 and 4*). The California sycamore woodlands alliance is associated with an unnamed tributary to Conejo Creek (streambed).

Southern Alignment to Newbury Substation (Segment 4)

Segment 4 begins in the Calleguas hills and continues south to the Newbury Substation. Within the Calleguas hills, this 1-mile alignment traverses the California sagebrush – California buckwheat scrub alliance, California sycamore woodlands alliance, purple sage scrub alliance, big pod ceanothus chaparral alliance, mixed purple and black sage community, needle grass grassland alliance, and coast prickly pear scrub alliance (Figure 5.4-2 *Vegetation Communities in the Proposed Project Vicinity for Segments 3 and 4*). The Newbury Substation is situated at the base of the Calleguas Hills within an area of extensive rural residential development. The Newbury Substation is a developed lot with existing electrical infrastructure, a security fence around the substation, and a second perimeter fence at the property boundary. California pepper tree and ornamental trees line the fence perimeters, with an herbaceous understory of sparse ruderal vegetation between the substation fence and the property boundary comprised mostly of nonnative wild oat (*Avena* sp.).

Sensitive Natural Communities

Several vegetation alliances that occur in the Proposed Project study area are designated by CDFW as sensitive natural communities. Sensitive natural communities that occur in the Proposed Project study area are the coast prickly pear scrub alliance, the California sycamore woodlands alliance, and needle grass stands. Botanical surveys have identified foothill needle grass and nodding needle grass in the Proposed Project study area (SCE, 2013a). Though present within the Proposed Project study area, these sensitive natural communities may not necessarily be affected by the Proposed Project. The distribution of these communities within the Proposed Project study area was described previously in the vegetation community descriptions.

Wildlife Movement and Corridors

The concept of wildlife corridors addresses the linkage between large blocks of habitat that allow safe movement of mammals and other ground dwelling wildlife species, birds, and invertebrates from one habitat area to another. Definitions of a wildlife corridor vary but corridors may include large elements such as refuge systems or natural parks as well as small elements such as underpasses, or greenbelts within otherwise urbanized areas. In general, a corridor is described as

a linear habitat, embedded in a dissimilar matrix that connects two or more large blocks of habitat (Beier and Noss, 1998). Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. The nature of corridor use and wildlife movement patterns varies greatly among species and geographic regions.

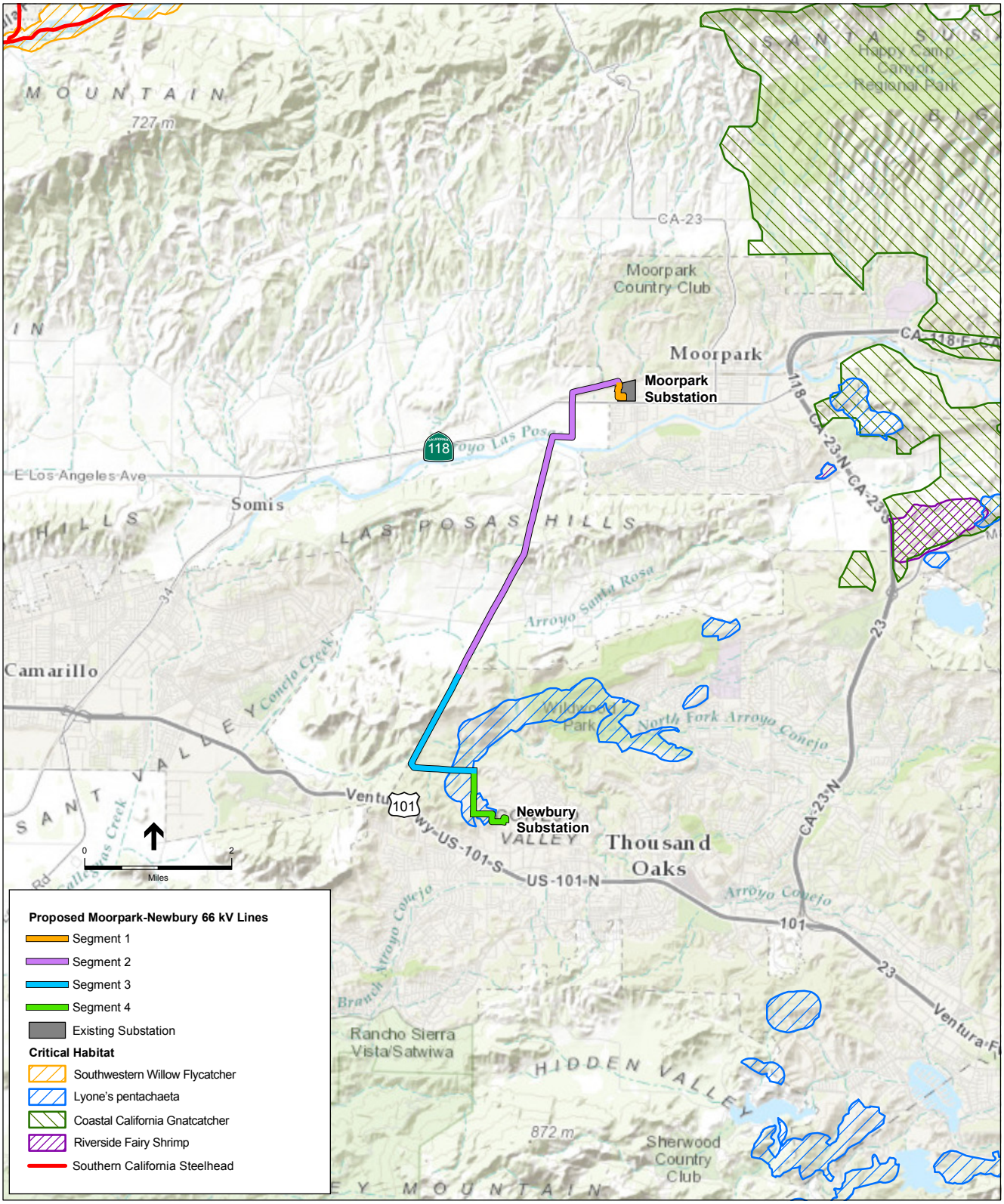
The Proposed Project and alternatives are located within a region that has features conducive to a wildlife corridor connecting larger areas of open space in the north (e.g., the Santa Clara River and Los Padres National Forest), east (e.g., the Simi Hills), west (Las Posas Hills), and south to the Santa Monica Mountains). The regional area within which the Proposed Project is located was described by the South Coast Missing Linkages Project as a potentially important north-south migration corridor for a number of important species indicative of overall ecosystem health (Penrod et al., 2006).

Existing barriers to wildlife movement in proximity to the Proposed Project study area include Los Angeles Avenue, Santa Rosa Road, and Olsen Road. Wildlife movement corridors have also been reduced in the regional area by the conversion of natural lands for agriculture and large scale development projects. The Proposed Project would have a relatively small footprint and would either replace or be located adjacent to existing electrical infrastructure.

Special-Status Species

A comprehensive list of special-status plant and wildlife species that occur in the study area was compiled to assess the likelihood of species occurrence and potential Proposed Project impacts to these species. Some of these receive specific protection defined in federal or state endangered species legislation. Others have been designated as “sensitive” on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as “special-status species” in this Environmental Impact Report (EIR), following a convention that has developed in practice but has no official sanction. The various categories encompassed by the term, and the legal status of each, are discussed in the *Regulatory Context* discussion within this section.

Special-status plant and wildlife species that are known or have potential to occur in the Proposed Project study area and their designated critical habitat are discussed below. Critical habitat in the Proposed Project study area is illustrated in **Figure 5.4-3**, *Critical Habitat in the Proposed Project Vicinity*, and is further described in the *Regulatory Setting* discussion. A list of special-status species reported or expected to occur within the Proposed Project study area was compiled on the basis of data in the PEA (SCE, 2013a), biological studies (BonTerra, 2008; 2010a; 2010b; 2010c; 2011a; and 2011b; and Leopold Biological Services, 2014), the California Natural



SOURCE: SCE, 2014; USFWS, 2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.4-3

Critical Habitat in the Proposed Project Vicinity

Diversity Database (CNDDB) (CDFW, 2015), California Native Plant Society (CNPS)'s Online Inventory of Rare and Endangered Plants (CNPS, 2014), and species data for Ventura County from the U.S. Fish and Wildlife (USFWS) (USFWS, 2014). A list of special-status plant and wildlife species with potential to occur in the Proposed Project and alternatives study areas is presented in **Table 5.4-2**. The list is intended to be comprehensive and the "potential for occurrence" designations apply to species and habitats in the study area that would not necessarily be impacted by the Proposed Project or alternatives. Based upon this information, special-status species that have at least a moderate to high potential to occur in the study area and could be exposed to Proposed Project- or alternative-related impacts (i.e., a species or habitat that is either known or with a high potential to occur in the study area) are described below.

Special-Status Plants

Several special-status plant species have been reported near the Proposed Project and alternatives based on the results of the literature review described above. Eleven federally and/or state-listed Endangered or Threatened species are reported from the Newbury and/or Moorpark 7.5-minute U.S. Geological Survey topographic quadrangles or from the surrounding quadrangles. These include marsh sandwort (*Arenaria paludicola*), Braunton's milk-vetch (*Astragalus brauntonii*), San Fernando Valley spineflower (*Chrozanthe parryi* var. *fernandina*), Santa Monica dudleya (*Dudleya cymosa* ssp. *ovatifolia*), marcescent dudleya (*Dudleya cymosa* ssp. *marcescens*), Conejo dudleya (*Dudleya parva*), Verity's dudleya (*Dudleya verityi*), Gambel's watercress (*Nasturtium gambelii*), spreading navarretia (*Navarretia fossalis*), California orcutt grass (*Orcuttia californica*), and Lyon's pentachaeta (*Pentachaeta lyonii*) (see Table 5.4-2). Within the Proposed Project study area there is no suitable habitat for marsh sandwort, Gambel's watercress, spreading Navarretia, and California orcutt grass. Suitable habitat is present for Braunton's milk-vetch, San Fernando Valley spineflower, Santa Monica dudleya, marcescent dudleya, Conejo dudleya, Verity's dudleya, and Lyon's pentachaeta. These species are discussed in greater detail below. Conejo dudleya and Lyon's pentachaeta were identified in the Proposed Project study area. Table 5.4-2 summarizes the status and expected distribution of each special-status plant species reported in the vicinity of the Proposed Project and Alternatives.

In addition to federally- or state-listed plant species, those having a California Rare Plant Rank (CRPR) of 1A, 1B, or 2 are considered to meet the criteria of CEQA Guidelines Section 15380 and effects to these species are considered significant in this EIR. Additionally, plants identified as CRPR 1A, 1B, or 2 meet the definition of Section 1901, Chapter 10 (Native Plant Protection Act) and Sections 2062 and 2067 (California Endangered Species Act [CESA]) of the California Fish and Game Code (FGC) as rare or endangered species. As identified in Table 5.4-2, seven non-listed special-status plants were identified with at least a moderate potential to occur in the study area: round-leaved filaree (*California macrophylla*), Santa Susana tarplant (*Deinandra minthornii*), Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*), Conejo buckwheat (*Eriogonum crocatum*), mesa horkelia (*Horkelia cuneata* ssp. *puberula*), white-veined Monardella (*Monardella hypoleuca* ssp. *hypoleuca*), and Ojai navarretia (*Navarretia ojainensis*). A single CRPR List 4 species, Catalina mariposa lily (*Calochortus catalinae*), was also observed within the Proposed Project study area during botanical surveys.

TABLE 5.4-2
SPECIAL-STATUS SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE STUDY AREA

Common Name Scientific Name	Listing Status: Fed/State/ CRPR	General Habitat	Potential for Species Occurrence in the Proposed Project Area
Invertebrates			
FEDERAL OR STATE THREATENED AND ENDANGERED SPECIES			
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/--	Vernal pools and roadside ditches in seasonal grasslands, possibly interspersed with chaparral or coastal sage scrub vegetation.	**Absent.** No habitat. Vernal pools do not occur in the study area. Species is not reported within 5 miles.
Riverside fairy shrimp *Streptocephalus woottoni*	FE/--	Vernal pools, deep long lived pools in seasonal grasslands possibly interspersed with chaparral or coastal sage scrub vegetation.	**Absent.** No habitat. Vernal pools do not occur in the study area. Species is reported from a vernal pool 2.9 miles east near Tierra Rejada Golf Club.
STATE SPECIES OF SPECIAL CONCERN			
Monarch butterfly *Danaus plexippus*	--/--	Overwinters in tree groves, often eucalyptus. (Overwintering sites are protected by the CDFW).	**Absent.** No habitat. Overwintering groves are distributed along the coast; no inland locations reported.
Fish			
FEDERAL OR STATE THREATENED AND ENDANGERED SPECIES			
Santa Ana sucker *Catostomus santaanae*	FT/CSC	Small, permanent streams with cool water and gravel, rubble, or boulder substrate.	**Absent.** No habitat. Introduced to the Santa Clara River, but does not occur in study area drainages.
Unarmored threespine stickleback *Gasterosteus aculeatus williamsoni*	FE/SE, CFP	Slow-moving reaches and quiet microhabitats of freshwater streams and rivers.	**Absent.** Does not occur in study area drainages. Occurs in the Santa Clara River headwaters and its tributaries.
Southern steelhead-southern California Distinct Population Segment (DPS) *Oncorhynchus mykiss irideus*	FE/CSC	Coastal streams and tributaries.	**Present.** Species is reported from Conejo Creek.
STATE SPECIES OF SPECIAL CONCERN			
Arroyo chub *Gila orcuttii*	--/CSC	Prefers warm water, pool habitats with sand and mud bottoms.	**Present.** Species is reported from Conejo Creek, which is crossed by the overhead alignment.
Amphibians			
FEDERAL OR STATE THREATENED AND ENDANGERED SPECIES			
California red-legged frog *Rana draytonii*	FT/CSC	Ponds and slow-moving creeks and streams with adjacent grasslands, oak woodlands.	**Low.** No seasonal wetlands occur within the study area. Species is not reported within 5 miles.
STATE SPECIES OF SPECIAL CONCERN			
Western spadefoot *Spea hammondii*	--/CSC	Grassland, coastal sage scrub, and other habitats with open sandy or gravely soils. Frequents washes, floodplains, and alkali flats. Breeds in quiet streams and seasonal ponds.	**Low.** No seasonal wetlands occur within the study area. May breed in Proposed Project area drainages. Species is reported from a vernal pool and constructed pond 4 miles north of Moorpark substation.

TABLE 5.4-2 (Continued)
SPECIAL-STATUS SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE STUDY AREA

Common Name Scientific Name	Listing Status: Fed/State/ CRPR	General Habitat	Potential for Species Occurrence in the Proposed Project Area
Reptiles			
STATE SPECIES OF SPECIAL CONCERN			
Silvery legless lizard *Anniella pulchra pulchra*	--/CSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. Occurs in a variety of habitats, including chaparral and riparian. Will not persist in areas of human disturbance.	**Moderate.** Potentially suitable habitat is present.
Western pond turtle *Emys marmorata*	--/CSC	Lakes, ponds, reservoirs, and slow-moving streams and rivers, primarily in foothills and lowlands.	**Present.** Species is reported from Conejo Creek, which is crossed by the alignment. High potential near other riparian habitats, which are limited in the Proposed Project area.
Coast horned lizard *Phrynosoma blainvillii*	--/CSC	Scrubland, grasslands, forests and woodlands.	**High.** Species is reported from chaparral habitat proximate to an unnamed tributary to Conejo Creek, approximately 1,000 feet west of pole location 19.
Two-striped garter snake *Thamnophis hammondii*	--/CSC	Wetlands, freshwater marsh and riparian habitats with perennial water.	**Moderate.** Species is reported from downstream Conejo Creek (2 miles from alignment) and may occur in riparian habitats crossed by the alignment.
South Coast garter snake *Thamnophis sirtalis* ssp.	--/CSC	Low-gradient areas with perennial surface water and dense riparian vegetation, often within arid landscapes.	**Low.** May occur in riparian habitats crossed by the alignment. Species is not reported within 5 miles.
Birds			
FEDERAL OR STATE THREATENED AND ENDANGERED SPECIES			
Swainson's hawk *Buteo swainsoni*	--/ST	Forages over grasslands and ruderal vegetation in the region during migration	**Absent (nesting)**. Limited suitable foraging habitat, no nesting habitat.
Western snowy plover *Charadrius alexandrinus nivosus*	FT/CSC	Nests on beaches, mudflats, salt ponds. Usually coastal but sometimes at interior brackish lakes.	**Absent (absent).** No habitat.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT/SE	Riparian woodlands.	**Low (nesting).** Nests along the Santa Clara River. Suitable habitat may be present along drainages crossed by the alignment.
Southwestern willow flycatcher *Empidonax traillii extimus*	FE/SE	Dense riparian woodlands, often in willow thickets.	**Low (nesting).** Nests along the Santa Clara River. Species not detected in the study area during focused surveys.
California condor *Gymnogyps californianus*	FE/--	Nests in rocky, remote mountains. Forages over grasslands.	**Absent (nesting).** Sespe Condor Sanctuary is 20 miles north. Suitable foraging habitat is limited in the Proposed Project area and species is unlikely to forage towards human population centers.
Belding's savannah sparrow *Passerculus sandwichensis beldingi*	--/SE	Obligate resident of salt marshes.	**Absent**. No habitat.

TABLE 5.4-2 (Continued)
SPECIAL-STATUS SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE STUDY AREA

Common Name Scientific Name	Listing Status: Fed/State/ CRPR	General Habitat	Potential for Species Occurrence in the Proposed Project Area
Birds (cont.)			
FEDERAL OR STATE THREATENED AND ENDANGERED SPECIES (cont.)			
Coastal California gnatcatcher *Polioptila californica californica*	FT/CSC	Obligate resident of coastal sage scrub habitats.	**Present (nesting).** Species detected during focused surveys in Conejo Open Space.
Light-footed clapper rail *Rallus longirostris levipes*	FE/SE, CFP	Obligate resident of salt marshes.	**Absent**. No habitat.
Bank swallow *Riparia riparia*	--/ST	Nests colonially in vertical banks, cliffs, and bluffs along ocean, rivers, streams and lakes. Occurs in a variety of open water habitats during migration.	**Low (nesting).** Presence of potentially suitable habitat along drainages is unknown. Historical record at Lake Sherwood 4 miles south of Thousand Oaks.
California least tern *Sternula antillarum browni*	FE/SE, CFP	Marine or estuarine shores, sandbar islands in large rivers, exposed tidal flats and beaches.	**Absent**. No habitat.
Least Bell's vireo *Vireo bellii pusillus*	FE/SE	Riparian habitats dominated by willows with dense understory.	**High (nesting)**. Species is reported from riparian habitat along Arroyo Santa Rosa, approximately 1,000 feet east of pole location 25.
STATE SPECIES OF SPECIAL CONCERN			
Golden eagle *Aquila chrysaetos*	--/WL, CFP, B&GEPA	Grasslands, deserts, savannas and open forest and shrub habitats. Requires large areas of open country for foraging. Nests primarily restricted to rugged mountain areas with large trees or on cliffs	**Low (nesting)**. Limited suitable foraging and nesting habitat.
Burrowing owl *Athene cunicularia*	--/CSC	Open dry grasslands, deserts and scrublands with low-growing vegetation. Depends on burrowing mammals, notably California ground squirrel.	**Low (nesting/ resident)**. Limited suitable habitat; species is not reported within 5 miles.
Coastal cactus wren *Campylorhynchus brunneicapillus sandiegensis*	--/CSC	Coastal sage scrub, alluvial sage scrub habitats with appropriate *Opuntia* spp.	**Moderate (nesting)**. Suitable habitat present; not reported within 5 miles.
Yellow warbler *Setophaga petechia brewsteri (=Dendroica petechia)*	--/CSC	Nests in sycamore and willow riparian woodlands with dense understory vegetation.	**Present.** Observed during field surveys (SCE, 2013a).
White-tailed kite *Elanus leucurus*	--/CFP	Nests in oaks, willows, and sycamores, forages in grassland, and open scrub vegetation types.	**Low (nesting)**. Limited suitable foraging and nesting habitat.
American peregrine falcon *Falco peregrinus anatum*	--/CFP	Variety of habitats, particularly wetlands, and coastal areas, prefers high cliffs or building ledges for nesting.	**Absent (nesting)**. Limited suitable foraging habitat, no nesting habitat.
Loggerhead shrike *Lanius ludovicianus*	--/CSC	Grasslands and other dry open habitats.	**High (nesting).** Suitable nesting and foraging habitat present.

TABLE 5.4-2 (Continued)
SPECIAL-STATUS SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE STUDY AREA

Common Name Scientific Name	Listing Status: Fed/State/ CRPR	General Habitat	Potential for Species Occurrence in the Proposed Project Area
Mammals			
STATE SPECIES OF SPECIAL CONCERN			
Pallid bat *Antrozous pallidus*	--/CSC	Deserts, grasslands, shrublands, woodlands and forests. Open dry habitats with rocky areas for roosting. Roost sites must protect bats from high temperature. Sensitive to disturbance of roost sites.	**Absent**. No roosting habitat. Species is not reported within 5 miles.
Western mastiff bat *Eumops perotis*	--/CSC	Open, semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, chaparral. Roosts in crevices in cliff faces, buildings, trees and tunnels.	**Absent**. No roosting habitat Species is not reported within 5 miles.
Western red bat *Lasiurus blossevillii*	--/CSC	Winter range includes western lowlands. Roosts in forests and woodlands from sea level through mixed conifer forests. Roosts are often in edge habitats near streams, fields, or urban areas.	**Absent**. No roosting habitat Species is not reported within 5 miles.
San Diego desert woodrat *Neotoma lepida intermedia*	--/CSC	Coastal scrub of southern California, San Diego to San Luis Obispo Counties. Moderate to dense canopies preferred, abundant in areas with rock outcrops and rocky cliffs and slopes.	**Present.** Species is reported from the railroad alignment near pole location 5 (west from the Moorpark Substation). Suitable habitat is present; preferred sandy soils may be limited.
American badger *Taxidea taxus*	--/CSC	Occurs in a wide variety of habitats, including dry grasslands, deserts, prairies and other treeless areas; occasionally found in open chaparral.	**Moderate.** Potentially suitable habitat is present. Species is not reported within 5 miles.
Plants			
STATE THREATENED AND ENDANGERED SPECIES			
Marsh sandwort *Arenaria paludicola*	FE/CE/ 1B.1	Freshwater or brackish marshes and swamps. Sandy soils at 3-170 meters (m) above mean sea level (amsl).	**Absent.** No suitable habitat. Known from only two extant natural occurrences in Black Lake Canyon and Oso Flaco Lake.
Braunton's milk-vetch *Astragalus brauntonii*	FE/--/1B.1	Closed cone coniferous forest, coastal scrub, chaparral, disturbed areas, recent burns gravelly clay soils overlaying granite or limestone at 2-640 m amsl.	**Low.** Potentially suitable habitat present, but not detected during surveys. 27 extant occurrences in California (CA).
San Fernando Valley spineflower *Chorizanthe parryi* var. *fernandina*	FC/SE/ 1B.1	Sandy coastal scrub, valley and foothill grassland at 150-1,220 m amsl.	**Low.** Potentially suitable habitat present, but not detected during surveys. Three extant occurrences in CA.
Santa Monica dudleya *Dudleya cymosa* ssp. *ovatifolia*	FT/--/1B.2	Chaparral, coastal scrub in volcanic or rocky, sedimentary soils at 150-1,675 m amsl.	**Low.** Potentially suitable habitat present, but not detected during surveys. Three extant occurrences in CA.
Marcescent dudleya *Dudleya cymosa* ssp. *marcescens*	FT/--/1B.2	Chaparral. Volcanic rocky outcrops at 150-520 m amsl.	**Low.** Potentially suitable habitat present, but not detected during surveys. Nine extant occurrences in CA.
Conejo dudleya *Dudleya abramsii* spp. *parva*	FT/--/1B.2	Coastal scrub, valley and foothill grassland. Clayey or volcanic soils, rocky slopes and grassy hillsides at 60-450m.	**Present.** Detected during surveys. Thirteen extant occurrences in CA.

TABLE 5.4-2 (Continued)
SPECIAL-STATUS SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE STUDY AREA

Common Name Scientific Name	Listing Status: Fed/State/ CRPR	General Habitat	Potential for Species Occurrence in the Proposed Project Area
Plants (cont.)			
STATE THREATENED AND ENDANGERED SPECIES (cont.)			
Verity's dudleya *Dudleya verityi*	FT/--/1B.2	Chaparral, coastal scrub, cismontane woodland. Volcanic rocky outcrops. 60-120 m amsl.	**High.** Habitat present, but species not found. Three extant occurrences in CA, near Conejo Mountain.
Gambel's watercress *Nasturtium gambelii (=Rorippa gambelii*)	FE/CT/ 1B.1	Fresh or brackish marshes and swamps at 5-330 m amsl.	**Absent.** No suitable habitat. One extant occurrence in CA, at Black Lake Canyon.
Spreading navarretia *Navarretia fossalis*	FT/--/1B.1	Vernal pools, playas, freshwater marshes and swamps, chenopod scrub at 30-655 m amsl.	**Absent.** No suitable habitat. 55 extant occurrences in CA.
California orcutt grass *Orcuttia californica*	FE/SE/ 1B.1	Vernal pools at 15-660 m amsl.	**Absent**. No suitable habitat. 31 extant occurrences in CA. Species is reported within 5 miles.
Lyon's pentachaeta *Pentachaeta lyonii*	FE/SE/ 1B.1	Chaparral, valley and foothill grassland. Edges of clearings in chaparral, ecotones between shrub and grassland or edges of firebreaks at 30-630 m amsl.	**Present.** Detected during surveys. Proposed Project is sited within critical habitat. 35 extant occurrences in CA.
STATE SPECIES OF SPECIAL CONCERN			
Coulter's saltbush *Atriplex coulteri*	--/--/1B.2	Alkaline or clay soils in valley and foothill grasslands, coastal scrub at 3-460 m amsl.	**Unlikely.** Has more of a coastal distribution, and nearest reported occurrence is greater than 5 miles from the Proposed Project area. Not detected during surveys.
Malibu baccharis *Baccharis malibuensis*	--/--/1B.1	Chaparral, coastal scrub, cismontane and riparian woodland. 150-305m.	**Absent.** Documented only from the Santa Monica Mountains. This perennial deciduous shrub was not observed during surveys.
Round-leaved filaree *California macrophylla*	--/--/1B.1	Clay soils in cismontane woodlands and valley and foothill grasslands. 15-1200m.	**Moderate.** Potentially suitable habitat is present, but not detected during surveys. Species is reported within 5 miles.
Catalina mariposa lily *Calochortus catalinae*	--/--/4.2[1]	Coastal scrub, chaparral, valley and foothill grassland. Rocky and sandy sites, of granitic or alluvial material, often common after fire. 90-1600m.	**Present.** Detected during surveys.
Slender mariposa lily *Calochortus clavatus* var. *gracilis*	--/--/1B.2	Chaparral, coastal scrub, valley and foothill grassland at 320-1000 m amsl.	**Unlikely.** Elevations in the Proposed Project area are lower than reported locations. Not detected during surveys.
Plummer's mariposa lily *Calochortus plummerae*	--/--/1B.2	Chaparral, Foothill Woodland, Yellow Pine Forest, Coastal Sage Scrub, Valley Grassland.	**Moderate.** Suitable habitat identified.
Southern tarplant *Centromadia parryi* ssp. *australis*	--/--/1B.1	Vernal pools, margins of marshes and swamps, vernally mesic valley and foothill grassland at 0-480 m amsl.	**Low.** Potentially suitable habitat is present, but species not detected during surveys. Nearest reported occurrence is 0.7 mile.
Orcutt's pincushion *Chaenactis glabriuscula* var. *orcuttiana*	--/--/1B.1	Sandy coastal bluff scrub and coastal dunes at 0-100 m amsl.	**Absent.** Suitable habitat is absent.

[1] Except for observed species, the list of plants in Table 5.4-1 is limited to California Rare Plant Rank (CRPR) rank 1 and 2 plants.

TABLE 5.4-2 (Continued)
SPECIAL-STATUS SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE STUDY AREA

Common Name Scientific Name	Listing Status: Fed/State/ CRPR	General Habitat	Potential for Species Occurrence in the Proposed Project Area
Plants (cont.)			
		STATE SPECIES OF SPECIAL CONCERN	
Parry's spineflower *Chorizanthe parryi* var. *parryi*	--/--/1B.1	Chaparral, coastal scrub, valley and foothill grassland at 275-1220 m amsl.	**Low.** Not detected during surveys. No occurrences within 5 miles.
Santa Susana tarplant *Deinandra minthornii*	--/--/1B.2 State Rare	Chaparral, coastal scrub. Sandstone outcrops and crevices in shrubland at 280-760 m amsl.	**Moderate.** Potentially suitable habitat is present, but species not detected during surveys. Nearest reported occurrence is 4.9 miles.
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	--/--/1B.1	Chaparral, coastal scrub, valley and foothill grassland. Rocky soil, often clay or serpentinite at 5-450 m amsl.	**Moderate.** Potentially suitable habitat is present, but species not detected during surveys. Species is reported within 5 miles.
Conejo buckwheat *Eriogonum crocatum*	--/--/1B.2 State Rare	Chaparral, coastal sage scrub, valley and foothill grassland. Volcanic rocky outcrops at 50-580 m amsl.	**Moderate.** Potentially suitable habitat is present, but species not detected during surveys. Species is reported within 5 miles.
Mesa horkelia *Horkelia cuneata* ssp. *puberula*	--/--/1B.1	Chaparral, cismontane woodland, coastal sage scrub. Sandy or gravelly sites. 10-810m.	**Moderate.** Potentially suitable habitat is present, but species not detected during surveys.
Coulter's goldfields *Lasthenia glabrata* ssp. *Coulteri*	--/--/1B.1	Coastal salt marshes and swamps, playas, vernal pools at 1-1,220 m amsl.	**Absent.** No suitable habitat.
White-veined monardella *Monardella hypoleuca* ssp. *hypoleuca*	--/--/1B.3	Chaparral, cismontane woodland at 50-1,525 m amsl.	**Moderate.** Potentially suitable habitat is present, but species not detected during surveys. Species is reported within 5 miles.
Southern curly-leaved monardella *Monardella sinuata* ssp. *sinuata*	--/--/1B.2	Chaparral, openings in coastal scrub, cismontane woodland, sandy soils at 0-300 m amsl.	**Low.** Potentially suitable habitat is present, but species not detected during surveys. Preferred soils may be absent. Species is reported within 5 miles.
Ojai navarretia *Navarretia ojaiensis*	--/--/1B.1	Openings in chaparral and coastal scrub; valley and foothill grasslands at 275-620 m amsl.	**Moderate.** Potentially suitable habitat is present, but species not detected during surveys.
Chaparral nolina *Nolina cismontana*	--/--/1B.2	Chaparral, coastal scrub. Sandstone and shale substrates, also gabbro soils at 140-1,275 m amsl.	**Low.** Potentially suitable habitat is present, but species not detected during surveys. Preferred soils may be absent.
Nuttall's scrub oak *Quercus dumosa*	--/--/1B.1	Chaparral, coastal scrub in sandy clay loam at 15-400 m amsl.	**Absent.** Potentially suitable habitat is present, but this perennial evergreen shrub was not observed during surveys.
Chaparral ragwort *Senecio aphanactis*	--/--/2B.2	Chaparral, coastal scrub, cismontane woodland. Sometimes alkaline soils at 15-800 m amsl.	**Low.** Potentially suitable habitat is present. Preferred soils may be absent. Species is reported within 5 miles.
Sonoran maiden fern *Thelypteris puberula* var. *sonorensis*	--/--/2B.2	Meadows and seeps at 50-610 m amsl.	**Absent.** No suitable habitat.
California screw-moss *Tortula californica*	--/--/1B.2	Chenopod scrub, valley and foothill grassland in sandy soils at 10-1,460 m amsl.	**Low.** Potentially suitable habitat is present, but species not detected during surveys. Preferred soils may be absent.

TABLE 5.4-2 (Continued)
SPECIAL-STATUS SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE STUDY AREA

Common Name Scientific Name	Listing Status: Fed/State/ CRPR	General Habitat	Potential for Species Occurrence in the Proposed Project Area
Plants (cont.)			

CDFW SENSITIVE NATURAL COMMUNITIES

Vegetation Alliance	Occurrence in the Project Area
California sycamore woodlands alliance (=Southern Riparian Forest)	**Present.** Occurs in the vicinity of pole locations 25, 26, 37, 39, 40, and 41.
Coast prickly pear scrub alliance	**Present.** Occurs in the vicinity of pole locations 26, 27, 28, 32-37, and 53-63.
Purple needle grass grassland alliance	**Present.** Occurs in the vicinity of pole locations 26, 27, and 47-53.
Nodding needle grass grassland alliance	**Present.** Occurs in the vicinity of pole locations 26, 27, and 47-53.
Foothill needle grass grassland alliance	**Present.** Occurs in the vicinity of pole locations 26, 27, and 47-53.

STATUS CODES:

Federal (U.S. Fish and Wildlife Service):
B&GEPA = Golden and Bald Eagle Protection Act
FE = Listed as Endangered by the Federal Government
FT = Listed as Threatened by the Federal Government
FC = Federal Candidate for Listing
CT = Candidate Species for listing as Threatened under the FESA
WL = Birds on CDFW Watch List

State (California Department of Fish and Wildlife):
SE = Listed as Endangered by the State of California
ST = Listed as Threatened by the State of California
CSC = California Species of Special Concern
CFP = California fully protected species
Rare = California

California Rare Plant Rank (CRPR):
Rank 1B.1 = Rare, threatened, or endangered in CA and elsewhere; serious threat in CA
Rank 1B.2 = Rare, threatened, or endangered in CA and elsewhere; moderate threat in CA
Rank 1B.3 = Rare, threatened, or endangered in CA and elsewhere; low threat in CA
Rank 2B.2 = Rare, threatened, or endangered in CA; more common elsewhere
Rank 4.2 = Limited distribution; moderate threat in CA

SOURCES: CDFW, 2015; CNPS, 2014; Hovey and O'Brien, 2013; BonTerra, 2008; 2010a; 2010b; 2010c; 2011a; 2011b; and SCE, 2013a

Habitat evaluations and focused botanical surveys for Conejo dudleya and Lyon's pentachaeta were performed on the Moorpark and Newbury substation sites and proposed subtransmission alignment (BonTerra, 2008; 2010b). All plants encountered were identified to species and the results compiled in a compendium attached to the focused survey reports. Survey results are incorporated into Table 5.4-2. The botanical study area also encompassed the areas covered by No Project Alternative 1 and No Project Alternative 2.

Braunton's milk-vetch

Braunton's milk-vetch is a federally-listed Endangered species and a CRPR 1B.1 species. This perennial herb occurs in disturbed areas in carbonate soils in chaparral at elevations below 457 meters (m) (1,500 feet) above mean sea level (amsl) (Munz, 1968). This species has been reported from Oakbrook Regional Park, approximately 7 miles east from the Proposed Project area. A general plant and wildlife survey was completed during the typical January through August blooming period for this species and botanical surveys were also conducted during the blooming period (BonTerra, 2008; 2010b). This species was not observed. On November 14, 2006, the USFWS designated as critical habitat for Braunton's milk-vetch approximately 3,300 acres in Ventura, Los Angeles, and Orange Counties, California (USFWS, 2006). The Proposed Project and alternatives are not within designated critical habitat for this species.

San Fernando Valley Spineflower

San Fernando Valley Spineflower is a federal candidate species for listing as Threatened under the Federal Endangered Species Act (FESA), a state endangered species, and a California CRPR List 1B.1 species. This annual herb grows in sandy coastal scrub at elevations between 150 m and 1,220 m (492 feet to 4,003 feet) amsl. This species has been reported from Laskey Mesa in Calabasas, approximately 14 miles east of the Proposed Project area. A general plant and wildlife survey was completed during the April through July blooming period for this species and focused botanical surveys were also conducted during the blooming period (BonTerra, 2008; 2010b). This species was not observed. As a candidate for listing under the FESA, no critical habitat has been designated for this species.

Marcescent Dudleya

Marcescent dudleya is a federally-listed Threatened species, a State Rare plant, and a CRPR 1B.2 species. This perennial herb occurs in volcanic or rocky soils in chaparral at elevations between 150 m and 520 m (492 feet to 1,706 feet) amsl. This species has been reported from Boney Mountain approximately 4 miles south of the Proposed Project area. A general plant and wildlife survey was completed during the typical April through July blooming period for this species and botanical surveys were also conducted during the blooming period (BonTerra, 2008; 2010b). This species was not observed. Critical habitat has not been designated for the species.

Conejo Dudleya

Conejo dudleya is a federally-listed Threatened species and a CRPR 1.B.2 species. This perennial herb generally occurs in rocky soils and rock outcrops between 37 m and 412 m (120 feet to 1,350 feet) amsl in coastal sage scrub and valley and foothill grasslands. During focused botanical

surveys performed for the Proposed Project (BonTerra, 2010b), this species was observed within the study area of the alignment through Conejo Open Space. Critical habitat has not been established for the species.

Verity's Dudleya

Verity's dudleya is a federally-listed Threatened species and a CRPR 1.B.1 species. This perennial herb generally occurs in volcanic or rocky soils between 60 m and 120 m (197 feet to 394 feet) amsl in chaparral, coastal scrub, and cismontane woodland. This species is known from only three occurrences near Conejo Mountain, located approximately 1.5 miles west of the Proposed Project. Critical habitat has not been established for the species.

Lyon's Pentachaeta

Lyon's pentachaeta is a federal and state-listed Endangered species and a CRPR 1B.1 species. This annual herb occurs in rocky, clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands between 31 m and 610 m (100 feet to 2,000 feet) amsl. During focused botanical surveys performed for the Proposed Project (BonTerra, 2010b), this species was observed within the study area of the alignment within Conejo Open Space.

On November 14, 2006, the USFWS published the Final Rule designating critical habitat for Lyon's pentachaeta (USFWS, 2006). This designation includes approximately 3,396 acres in Ventura, Los Angeles, and Orange counties, California. The Proposed Project is located within Subunit 2b of the Southern Simi Hills Critical Habitat Unit for this species.

Special-Status Wildlife

The following federal and/or state-listed Endangered or Threatened species have been reported in or near the study area: Riverside fairy shrimp (*Streptocephalus wootonii*), southern steelhead-southern California Distinct Population Segment (DPS) (*Oncorhynchus mykiss irrideus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), southwestern willow flycatcher (*Empidonax traillii extimus*), coastal California gnatcatcher (*Polioptila californica californica*), bank swallow (*Riparia riparia*), and least Bell's vireo (*Vireo bellii pusillus*) (Table 5.4-2). Suitable habitat for Riverside fairy shrimp does not occur within the study area. Conejo Creek is known to support a population of southern steelhead (Hovey and O'Brien). Western yellow-billed cuckoo and southwestern willow flycatcher both nest along the Santa Clara River, and potentially suitable habitat may be present in California sycamore woodlands and other riparian zones in the study area. Coastal California gnatcatcher is documented to nest within the study area (BonTerra 2010b; Leopold Biological Services, 2014). Bank swallow historically nested at Sherwood Lake in the City of Thousand Oaks, but no contemporary occurrences are reported within 5 miles; potentially suitable habitat may be present along study area drainages. Least Bell's vireo nests exist in riparian habitat along Arroyo Santa Rosa approximately 1,000 feet east of pole location 25. These species are discussed in further detail below.

In addition to wildlife species listed under federal and state endangered species acts, multiple species reported near the study area are designated as Species of Special Concern (SSC) by CDFW

and/or granted protection as "special-status species" under Section 15380 of CEQA (see the *Regulatory Context* discussion). As described in Table 5.4-2, the following non-listed special-status species may be encountered in portions of the Proposed Project and alternatives study areas due to the presence of suitable habitat and known species distribution: arroyo chub (*Gila orcuttii*), silvery legless lizard (*Anniella pulchra pulchra*), western pond turtle (*Actinemys marmorata*), coast horned lizard (*Phrynosoma blainvillii*), two-striped garter snake (*Thamnophis hammondii*), South Coast garter snake (*Thamnophis sirtalis*), coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), northern harrier (*Circus cyaneus*), yellow warbler (*Dendroica petechia brewsteri*), white tailed-kite (*Elanus leucurus*), loggerhead shrike (*Lanius ludovicianus*), pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis*), western red bat (*Lasiurus blossevillii*), San Diego desert woodrat (*Neotoma lepida intermedia*), and American badger (*Taxidea taxus*).

Riverside Fairy Shrimp

Riverside fairy shrimp is a federally-listed Endangered species. This invertebrate species inhabits deep, long-lived pools in seasonal grasslands, some of which are interspersed among chaparral or coastal sage scrub vegetation (Eriksen and Belk, 1999). Riverside fairy shrimp are reported from a vernal pool in the Tierra Rejada Valley approximately 4 miles east of the Proposed Project (CDFW, 2015). No suitable habitat for this species occurs in the study area.

On April 12, 2005, the USFWS published a Final Rule designating approximately 306 acres of land in Ventura, Orange, and San Diego counties as critical habitat for Riverside fairy shrimp (USFWS, 2005). The Proposed Project and alternatives are not within designated critical habitat for this species.

Southern Steelhead- Southern California DPS

Southern steelhead is a federally-listed Endangered species and a California SSC. The southern California DPS of this fish species inhabits coastal rivers and streams from the Santa Maria River in southern San Luis Obispo County south to the Tijuana River at the U.S.-Mexico Border. Southern steelhead is documented to occur in Arroyo Simi and Conejo Creek, both of which would be crossed by Segment 2 of the proposed subtransmission line (NMFS, 2005; Hovey and O'Brien, 2013). A single southern steelhead was incidentally discovered in Conejo Creek in 2013 by CDFW biologists (Hovey and O'Brien, 2013). Regular steelhead runs are reported in drainages north and south of Conejo Creek, such as Arroyo Simi (north) and Big Sycamore Canyon Creek (south), but spawning habitat in Conejo Creek is considered marginal and juvenile holding habitat is sustained only by manmade flows (Hovey and O'Brien, 2013).

On September 2, 2005, the National Marine Fisheries Service (NMFS) published a Final Rule designating approximately 708 miles of riverine habitat as critical habitat for southern steelhead (NMFS, 2005). The Proposed Project and alternatives are not within designated critical habitat for this species.

Western Yellow-billed Cuckoo

Western yellow-billed cuckoo is federally listed as Threatened and is a California Endangered species. This species nests in riparian woodlands, and is documented to occur in riparian habitat

along the Santa Clara River approximately 8 miles north of the Proposed Project (CDFW, 2015). Potentially suitable habitat for western yellow-billed cuckoo may be present in California sycamore woodlands and other riparian communities in the study area. This species was not observed during focused surveys for least Bell's vireo conducted within similar suitable habitat (BonTerra, 2010c).

No critical habitat has been designated for this species.

Southwestern Willow Flycatcher

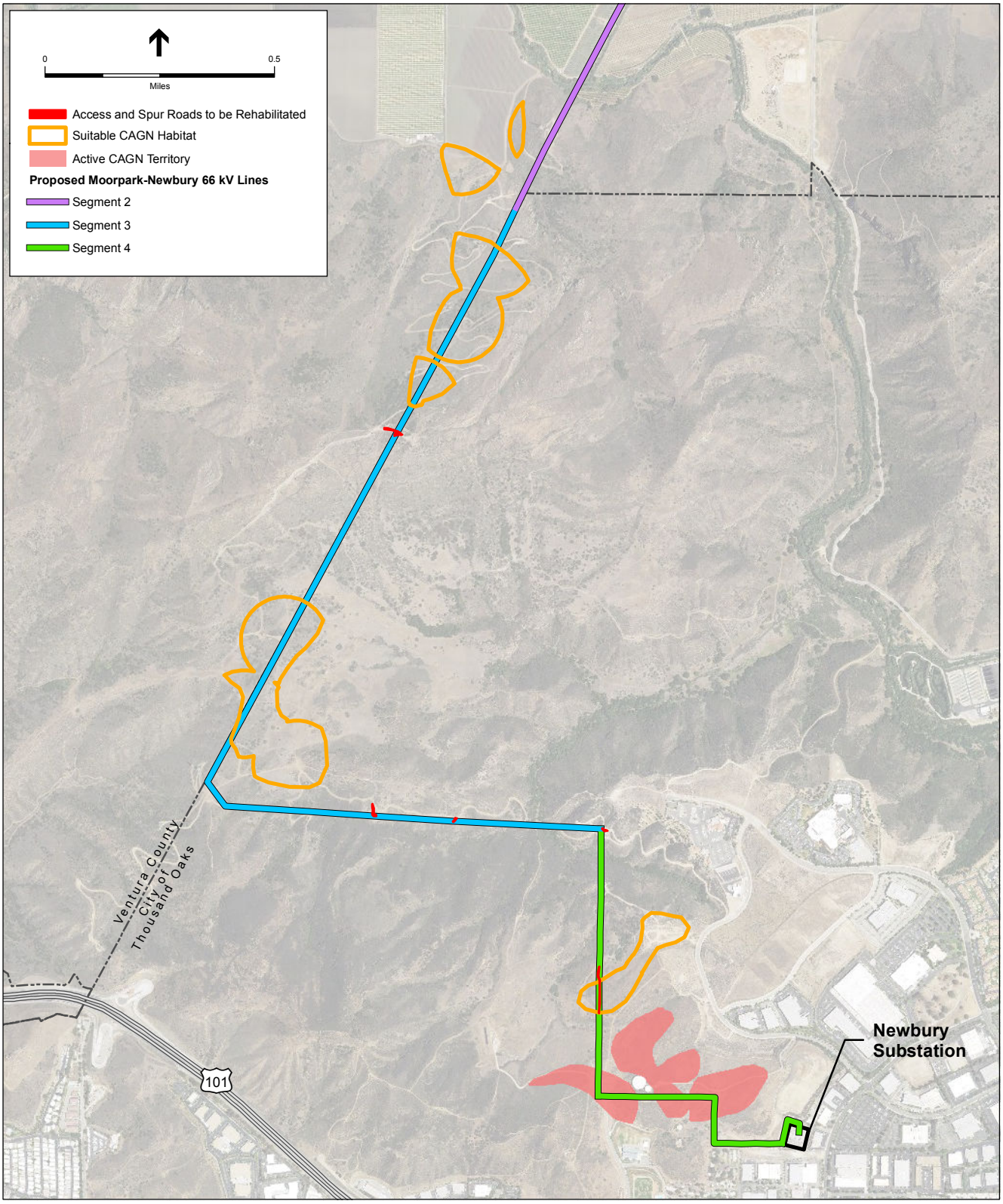
Southwestern willow flycatcher is a federal and state-listed Endangered species. This species nests in dense riparian woodlands, often in willow thickets, and is documented to occur in riparian habitat along the Santa Clara River approximately 8 miles north of the Proposed Project. Potentially suitable habitat for southwestern willow flycatcher may be present in California sycamore woodlands and other riparian communities in the study area. This species was not observed during focused surveys for least Bell's vireo conducted within similar suitable habitat (BonTerra, 2010c).

On January 3, 2013, the USFWS published a Final Rule designating segments of the Ventura River in Ventura County as critical habitat for southwestern willow flycatcher (USFWS, 2013). The Proposed Project and alternatives are not within designated critical habitat for this species.

Coastal California Gnatcatcher

Coastal California gnatcatcher is a federally-listed Threatened species and a California SSC. In California, this subspecies is an obligate resident of coastal sage scrub vegetation types. Focused surveys were conducted to determine species presence within suitable habitat in the Proposed Project study area. Within 500 feet of the Proposed Project right-of-way (ROW), Leopold Biological Services (2014) mapped 113.53 acres of suitable California gnatcatcher habitat (see **Figure 5.4-4**, *California Coastal Gnatcatcher (CAGN) Suitable Habitat in the Proposed Project Vicinity*). This included 7.25 acres of suitable habitat in Segment 2 on the south side of Santa Rosa Valley; 62.24 acres of suitable habitat in Segment 3; and 44.04 acres in Segment 4. Within these areas, 10 coastal California gnatcatchers were observed in four occupied territories totaling 32.44 acres. Active gnatcatcher territories were described in association with coastal sage scrub habitat near the northernmost two towers in Segment 4, throughout Segment 3, and in the southernmost portion of Segment 2 (Leopold Biological Services, 2014) (see Figure 5.4-4). Native vegetation in these areas includes rosemary flat-topped buckwheat, California sagebrush, black sage, gray coast buckwheat, coastal prickly pear, purple sage, bladderpod (Isomeris arborea), bush sunflower (Encelia *californica*), lemonadeberry, coyote brush, western poison oak, bush monkeyflower, laurel sumac, and deerweed. Three nesting pairs were identified near the alignment within the Conejo Open Space (BonTerra, 2008; 2010b; 2011a; Leopold Biological Services, 2014).

On December 19, 2007, the USFWS designated 197,303 acres of critical habitat for the coastal California gnatcatcher in Ventura, Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties, California (USFWS, 2007). The nearest designated critical habitat is located



SOURCE: SCE, 2013 and 2014; Leopold Biological Services, 2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.4-4

California Coastal Gnatcatcher (CAGN) Suitable Habitat in the Proposed Project Vicinity

approximately 3.5 miles east from the Proposed Project near Tierra Rejada Valley. The Proposed Project and alternatives are not within designated critical habitat for this species.

Bank Swallow

Bank swallow is a state-listed Threatened species. This species breeds in lowland areas along coasts, rivers, streams, lakes, reservoirs, and wetlands. Bank swallows forage over wetlands, open water, grasslands, riparian woodlands, agricultural areas, shrublands, and occasionally upland woodlands. The species is reported from an historical record in the vicinity of Lake Sherwood located approximately 4 miles south of the City of Thousand Oaks, and from six other records of now-extirpated populations occurring between the Santa Clara River valley to the north and the City of Pasadena to the east. It is unknown whether there is potentially suitable habitat along study area drainages, but the species is unlikely to be encountered in the study area, as known nesting sites within 50 miles having been abandoned (CDFW, 2015). As the species is not federally listed, there is no designated critical habitat for bank swallow.

Least Bell's Vireo

Least Bell's vireo is a federal and state-listed Endangered species. The least Bell's vireo breeds primarily in riparian habitats dominated by willows with dense understory vegetation. A dense shrub layer 2 to 10 feet above the ground is the most important habitat characteristic for this species (Kus, 2002; Franzreb, 1989). In addition to numerous contemporary nesting records from the Santa Clara River valley located approximately 8 miles north, this species was documented nesting in riparian habitat along Arroyo Santa Rosa approximately 1,000 feet east of pole location 25 (CDFW, 2015). Potentially suitable habitat within the Proposed Project study area was identified within an unnamed blueline drainage that bisects the subtransmission line alignment at the southern end of Segment 2 and within two side channels which serve as tributaries to the drainage. Native vegetation within this area includes willows (*Salix* sp.), mule fat, western sycamore, coast live oak (*Quercus agrifolia*), California sagebrush, bush sunflower, and western poison oak. Protocol surveys were conducted within this area between May and July, 2010, and no least Bell's vireos were detected (BonTerra, 2010c).

On February 2, 1994, the USFWS published a final critical habitat for the least Bell's vireo, designating approximately 37,560 acres of land in Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, and San Diego counties, including land along the Santa Clara River in Ventura County (USFWS, 1994). The Proposed Project and alternatives are not within designated critical habitat for this species.

Jurisdictional Waters of the U.S., Including Wetlands

Wetlands are ecologically productive habitats that support a rich variety of both plant and animal life. They are recognized as important natural systems because of their value to fish and wildlife, and their functions as storage areas for flood flows, groundwater recharge, nutrient recycling and water quality improvement. Wetlands are defined as areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted to saturated soils.

An assessment of potential state and federal jurisdictional resources was conducted for the Proposed Project in 2011 (BonTerra, 2011c; 2011d) and a preliminary jurisdictional delineation was conducted in 2013 (SCE, 2013b). Based on the preliminary jurisdictional delineation report, three significant drainage features/systems were identified to cross the proposed subtransmission line alignment (i.e., Arroyo Santa Rosa, Arroyo Simi, and an unnamed tributary to Conejo Creek), along with seven small jurisdictional features including ephemeral channels, erosional features, and agricultural ditches.

Regulatory Setting

Biological resources in California are protected and regulated by a variety of laws and policies administered by federal, state, and local agencies. This section summarizes the biological resource-related agencies, regulations, and policies relevant to the Proposed Project and alternatives.

Federal

U.S. Fish and Wildlife Service

The USFWS administers the FESA (16 U.S. Code [USC] 153 et seq.), the Migratory Bird Treaty Act (MBTA) (16 USC 703–711), and the Bald and Golden Eagle Protection Act (16 USC 668).

Federal Endangered Species Act. Under the FESA, the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as Threatened or Endangered (16 USC§1533(c)). Two federal agencies oversee the FESA: the USFWS has jurisdiction over plants, wildlife, and resident fish, while the National Oceanic and Atmospheric Administration/National Marine Fisheries Service (NOAA Fisheries/NMFS) has jurisdiction over anadromous fish and marine fish and mammals. FESA Section 7 mandates that all federal agencies consult with the USFWS and NOAA Fisheries/NMFS to ensure that federal agency actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species. The FESA prohibits the "take"[2] of any fish or wildlife species listed as threatened or endangered, including the destruction of habitat that could hinder species recovery.

FESA Section 10 requires the issuance of an "incidental take" permit before any public or private action may be taken that would potentially harm, harass, injure, kill, capture, collect, or otherwise hurt (i.e., take) any individual of an endangered or threatened species. The permit requires preparation and implementation of a habitat conservation plan that would offset the take of individuals that may occur, incidental to implementation of a project by providing for the overall preservation of the affected species through specific mitigation measures.

Critical Habitat. USFWS designates critical habitat for listed species under FESA. Critical habitat designations are specific areas within a geographic region that are occupied by a species and determined to be critical to its survival in accordance with FESA. Agencies that propose, fund, or issue a permit for a project that may affect a federally listed species or critical habitat

[2] The FESA definition of the term "take" is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such conduct.

must prepare a Habitat Conservation Plan as part of an application for a permit from the USFWS. Figure 5.4-3 identifies designated critical habitat in the Proposed Project study area, which has been designated for coastal California gnatcatcher.

Protection of Nesting Birds - Migratory Bird Treaty Act. The MBTA (16 USC §703 Supp. I, 1989) prohibits the killing, possessing, or trading of migratory birds, bird parts, eggs, or nests, except in accordance with regulations prescribed by the Secretary of the Interior.

U.S. Army Corps of Engineers

Clean Water Act, Section 404. The U.S. Army Corps of Engineers (Corps) administers Section 404 of the Clean Water Act (CWA). Section 404 regulates activities in wetlands and "other waters of the United States (U.S.)." Wetlands are a subset of "waters of the U.S." that are defined in the Code of Federal Regulations (CFR) (33 CFR 328.3[a]; 40 CFR 230.3[s]) as:

1. All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide.

2. All interstate waters including interstate wetlands. (Wetlands are defined by the federal government [33 CFR 328.3(b), 1991] as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances support, a prevalence of vegetation typically adapted for life in saturated soil conditions.)

3. All other waters—such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds—the use, degradation, or destruction of which could affect interstate or foreign commerce. This includes any waters with the following current or potential uses:

    a. That are or could be used by interstate or foreign travelers for recreational or other purposes,

    b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce, or

    c. That are used or could be used for industrial purposes by industries in interstate commerce.

4. All impoundments of waters otherwise defined as waters of the United States under the definition.

5. Tributaries of waters identified in paragraphs (1) through (4).

6. Territorial seas.

7. Wetlands next to waters identified in paragraphs (1) through (6).

8. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding the Clean Water Act jurisdiction remains with the U. S. Environmental Protection Agency (328.3[a][8] added 58 CFR 45035, August 25, 1993).

State

CEQA Guidelines Section 15380

CEQA Guidelines Section 15380(b) provides that a species not listed by FESA or CESA may be considered rare or endangered if it can be shown to meet certain criteria for rarity. These criteria have been modeled after the definition of FESA and the section of FGC discussing rare or endangered plants or animals. This section was included in the CEQA Guidelines primarily for situations in which a public agency is reviewing a project that may have a significant effect on a candidate species that has not yet been listed by CDFW or USFWS. CEQA provides the ability to protect species from potential project impacts until the respective agencies have the opportunity to designate the species protection.

CEQA also specifies the protection of other locally or regionally significant resources, including natural communities or habitats. Although natural communities do not presently have legal protection, CEQA requires an assessment of such communities and potential project impacts. Natural communities identified by CDFW as sensitive are considered to be significant resources and fall under the CEQA Guidelines for addressing impacts. Local planning documents such as general and area plans often identify natural communities.

California Department of Fish and Wildlife

The CDFW administers a number of laws and programs designed to protect fish and wildlife resources under FGC, such as the CESA (FGC §2050, et seq.), Fully Protected Species (FGC §3511), Native Plant Protection Act (FGC §§1900–1913), and Lake and Streambed Alteration Agreement Program (FGC §§1600–1616), as well as manages the California Species of Special Concern list.

California Endangered Species Act. In 1984, California implemented the CESA, which prohibits the take of state-listed Endangered and Threatened species; although, habitat destruction is not included in the state's definition of take. Section 2090 requires state agencies to comply with endangered species protection and recovery and to promote conservation of these species. The CDFW administers the act and authorizes take through FGC Section 2081 agreements (except for designated "Fully Protected Species"). Unlike its federal counterpart, CESA protections apply to candidate species that have been petitioned for listing.

Regarding listed rare and endangered plant species, CESA defers to the California Native Plant Protection Act (see below).

Fully Protected Species - Fish and Game Code Section 3511. Fully Protected Species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. The designation of Fully Protected status was the state's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Its "no take" provision is still applicable.

Native Plant Protection Act. FGC Sections 1900–1913, also known as the Native Plant Protection Act, is intended to preserve, protect, and enhance endangered or rare native plants in California. The act directs CDFW to establish criteria for determining what native plants are rare or endangered. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more cause. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. The act also directs the California Fish and Game Commission to adopt regulations governing the taking, possessing, propagation, or sale of any endangered or rare native plant.

Riparian Communities in California. Riparian communities have a variety of functions, including providing high-quality habitat for resident and migrant wildlife, streambank stabilization, and runoff water filtration. Throughout the U.S., riparian habitats have declined substantially in extent and quality compared with their historical distribution and condition. These declines have increased concerns about dependent plant and wildlife species, leading federal agencies to adopt policies to arrest further loss.

Lake and Streambed Alteration Program. The CDFW regulates activities that would interfere with the natural flow of, or substantially alter, the channel, bed, or bank of a lake, river, or stream. FGC Section 1602 requires notification of CDFW for lake or stream alteration activities. If, after notification is complete, the CDFW determines that the activity may substantially adversely affect an existing fish and wildlife resource, the CDFW has authority to issue a Lake and Streambed Alteration Agreement under Section 1603 of the FGC. Requirements to protect the integrity of biological resources and water quality are often conditions of streambed alteration agreements. These may include avoidance or minimization of heavy equipment use within stream zones, limitations on work periods to avoid impacts to wildlife and fisheries resources, and measures to restore degraded sites or compensate for permanent habitat losses.

Species of Special Concern. CDFW maintains lists for candidate-endangered species and candidate-threatened species. California candidate species are afforded the same level of protection as listed species. California also designates Species of Special Concern, which are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species do not have the same legal protection as listed species or Fully Protected Species, but may be added to official lists in the future. CDFW intends the Species of Special Concern list to be a management tool for consideration in future land use decisions.

Fish and Game Code Section 3503. FGC Section 3503.5 provides that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. Construction activities that result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment and/or reproductive failure are considered a “take” by CDFW. Any loss of eggs, young, or active nests, or any activities resulting in nest abandonment would constitute a significant project impact.

Local

California Public Utilities Commission (CPUC) General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to biological resources that would otherwise be relevant to the Proposed Project and alternatives are described below.

Ventura County General Plan

For information purposes, the following goal and policies identified in the Ventura County General Plan were considered to inform the significance determination related to the protection of biological resources in the study area (County of Ventura, 2013):

> *1.5.1 Goal*: Preserve and protect significant biological resources in Ventura County from incompatible land uses and development. Significant biological resources include endangered, threatened or rare species and their habitats, wetland habitats, coastal habitats, wildlife migration corridors and locally important species/communities.
>
> *1.5.2 Policies*
>
> 1. Discretionary development which could potentially impact biological resources shall be evaluated by a qualified biologist to assess impacts and, if necessary, develop mitigation measures.
>
> 2. Discretionary development shall be sited and designed to incorporate all feasible measures to mitigate any significant impacts to biological resources**.** If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.
>
> 3. Discretionary development that is proposed to be located within 300 feet of a marsh, small wash, intermittent lake, intermittent stream, spring, or perennial stream (as identified on the latest USGS 7½ minute quad map), shall be evaluated by a County approved biologist for potential impacts on wetland habitats. Discretionary development that would have a significant impact on significant wetland habitats shall be prohibited, unless mitigation measures are adopted that would reduce the impact to a less than significant level; or for lands designated "Urban" or "Existing Community," a statement of overriding considerations is adopted by the decision-making body.
>
> 4. Discretionary development shall be sited a minimum of 100 feet from significant wetland habitats to mitigate the potential impacts on said habitats. Buffer areas may be increased or decreased upon evaluation and recommendation by a qualified biologist and approval by the decision-making body. Factors to be used in determining adjustment of the 100 foot buffer include soil type, slope stability, drainage patterns, presence or absence of endangered, threatened or rare plants or animals, and compatibility of the proposed development with the wildlife use of the wetland habitat area. The requirement of a buffer (setback) shall not preclude the use of replacement as a mitigation when there is no other feasible alternative to allowing a permitted use, and if the replacement results in no net loss of wetland habitat. Such replacement shall be "in kind" (i.e., same type and acreage), and provide wetland habitat of comparable biological value. On-site replacement shall be preferred

wherever possible. The replacement plan shall be developed in consultation with California Department of Fish and Game.

5. The CDFW, USFWS, National Audubon Society and the CNPS shall be consulted when discretionary development may affect significant biological resources. The National Park Service shall also be consulted regarding discretionary development within the Santa Monica Mountains or Oak Park Area.

6. Based on the review and recommendation of a qualified biologist, the design of road and floodplain improvements shall incorporate all feasible measures to accommodate wildlife passage.

Thousand Oaks Area Plan

For information purposes, the following goals and policies identified in the Thousand Oaks Area Plan of the Ventura County General Plan are relevant to the Proposed Project and alternatives (County of Ventura, 2010):

1.3.1 Goals:

1. Protect to the maximum extent feasible the biological resources of the Thousand Oaks Area of Interest in order to maintain natural ecosystems and also preserve the natural beauty of the area (e.g., volcanic outcrops, meadows, thin-soiled volcanic substrate slopes, wetlands areas, etc.).

2. Preserve and protect rare, threatened, endangered and candidate plant and animal species and their habitats.

3. Protect wildlife habitat and ensure viable wildlife movement corridors between open lands, including parklands, within the study area and surrounding the Conejo Valley.

4. Protect the significant stands of the major plant communities of Thousand Oaks: Southern oak woodland, oak savannah, chaparral, coastal and inland sage scrub, riparian woodland, and grassland.

5. Preserve natural vegetation by restricting grading on hillsides and in canyons to preserve its intrinsic value for wildlife habitat, for slope stability, and for scenic beauty.

6. Protect sources of water vital to wildlife, such as springs, ponds, and streams.

7. Encourage revegetation or landscaping that incorporates indigenous native plant species in order to restore habitat in already disturbed or urbanized areas.

8. Recognize the role of fire in local ecosystems in order that it be taken into account in all planning efforts.

1.3.2 Policies

1. A biological field reconnaissance report detailing the composition of species at the site, the presence of rare, threatened, endangered or candidate plant or animal species, the presence of important wildlife movement corridors and wetlands, and suitable mitigation measures shall be prepared by the County's biological consultant

as part of the environmental assessment of all discretionary development permits involving earth movement or construction on previously undeveloped land (i.e., where the natural vegetation still exists).

2. The City of Thousand Oaks, the Conejo Open Space Conservation Agency (COSCA), the California Department of Parks and Recreation, the Santa Monica Mountains Conservancy, and the Santa Monica Mountains National Recreation Area shall be consulted during the initial 30-day project review period for discretionary development proposals when proposals which may adversely affect the biological resources under their purview are submitted.

3. Standard Conditions for Projects Incorporating Permanent Open Space/Recreation (see Section 5.1) shall be imposed, as appropriate, on all discretionary development adjoining or affecting significant habitat and wetland areas.

4. Deed restrictions, conservation easements and/or parkland/open space dedications to an appropriate public agency (e.g., Conejo Open Space Conservation Agency (COSCA), California Department of Parks and Recreation, National Park Service, Conejo Recreation and Park District, Nature Conservancy, a Homeowners Association or other entity approved by the County) shall be employed on portions of properties with severe environmental constraints, in order to protect significant natural areas by preserving them as permanent open space/recreation areas while permitting property owners to develop less constrained portions of property (see Section 5.1).

5. Discretionary development shall be located to avoid the loss or damage to protected trees. Removal of protected trees shall only occur after review of the necessity of such removal, and in accordance with the provisions of the County's Scenic Resource Protection Overlay Zone (Zoning Ordinance), the County's Tree Protection Ordinance (Zoning Ordinance), and the Guidelines for the Preservation and Protection of Trees (see Section 5.2).

6. Discretionary development within high fire hazard areas shall be reviewed with attention to the environmental impact of required brush clearance to biological resources, particularly on moderate to steep slopes. Brush clearance that reduces fuel volumes while allowing the selective retention of native shrubs a minimum of 20' apart should be encouraged, as permitted by the Ventura County Fire Protection District.

Ventura County Tree Protection Ordinance

Ventura County identifies the following trees in its Tree Protection Ordinance: alder (*Alnus* spp.), ash (*Fraxinus* spp.), bay (*Umbellularia californica*), cottonwood (*Populus* spp.), elderberry (*Sambucus* spp.), big cone Douglas fir (*Pseudotsuga macrocarpa*), white fir (*Abies concolor*), juniper (*Juniperus californica*), maple (*Acer macrophyllum*), oak, pine, sycamore (*Platanus* spp.), and walnut (*Juglans* spp.). Size requirements for protected status vary by species. The ordinance designates trees with a single trunk 90 inches in diameter or with multiple trunks totaling 72 inches in diameter as heritage trees. In addition, the ordinance designates any trees identified by the County or a city as a landmark, or identified on the Federal or California Historic Resources Inventory to be of historical or cultural significance (i.e., historical trees).

The Ventura County Tree Protection Ordinance includes permit exemptions for tree pruning and trimming by public utilities for purposes of protecting the public and maintaining adequate clearance from public utility conduits and facilities. In addition, the ordinance provides for ministerial permits for tree removal or alteration when a tree interferes with public utilities facilities (County of Ventura, 2009).

City of Thousand Oaks General Plan

For information purposes, the following Recreational, Parks, and Natural Open Space Policies and Additional Policies identified in the City of Thousand Oaks General Plan would be relevant to the Proposed Project and alternatives (City of Thousand Oaks, 1996):

- The majority of natural open space acreage will be in public ownership.
- Wildlife corridors and sensitive ecological systems within the City's Planning Area should be protected.
- The City shall preserve and protect the unique biodiversity of the City's open spaces and wetlands, including natural arroyos and oak trees.

City of Moorpark General Plan

For information purposes, the following goal and policies identified in the City of Moorpark General Plan would be relevant to the Proposed Project and alternatives (City of Moorpark, 1992):

> *Goal 15*: Maintain a high quality environment that contributes to and enhances the quality of life and protects public health, safety, and welfare.
>
> *Policy 15.1:* Public and private projects shall be designed so that significant vegetation shall be maintained and protected, including riparian and oak woodland vegetation and mature trees (as defined in the City code).
>
> *Policy 15.2:* Ecologically sensitive habitats shall be protected and preserved or replaced with no net loss of habitat so long as there is substantial public benefit to any relocation program.
>
> *Policy 15.5:* The City shall require developers to maintain wildlife corridors to allow for the passage of animals between designated open space or recreation areas.

5.4.2 Significance Criteria

According to Appendix G of the CEQA *Guidelines*, a project would result in significant biological resources effects on the environment if it 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 (including List 1A, 1B, and 2 plant species of the CNPS Inventory);

b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS;

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, 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 Communities Conservation Plan, other approved local, regional, or state habitat conservation plan.

CEQA Section 15380 provides that a plant or animal species may be treated as "Rare or Endangered" even if not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future. As species of plants and animals become restricted in range and limited in population numbers, species may become listed or candidates for listing as Endangered or Threatened and become recognized under CEQA as a significant resource. Examples of such species are vernal pool fairy shrimp and burrowing owl; the former is listed by the federal government and the latter is considered a California Species of Special Concern.

In conducting the following impact analysis, three principal components of the CEQA Guidelines outlined above were considered:

- Magnitude of the impact (e.g., substantial/not substantial);
- Uniqueness of the affected resource (i.e., rarity of the resource); and
- Susceptibility of the affected resource to perturbation (i.e., sensitivity of the resource).

The evaluation of the significance of the following impacts considered the interrelationship of these three components. For example, a relatively small magnitude impact to a federal or state-listed species would be considered significant because the species is very rare and is believed to be very susceptible to disturbance. Conversely, a plant community such as California annual grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact would be required to result in a significant impact.

5.4.3 Applicant Proposed Measures

The following applicant proposed measures (APMs) would be implemented during future construction activities to reduce environmental impacts. The impact analysis assumes that these APMs would be implemented to reduce biological impacts as discussed below.

APM BIO-1: General.

- Where wood subtransmission poles have been replaced with LWS poles during past construction activities, the previously-installed poles would be retrofitted to be avian-safe with newly available equipment and consistent with the *Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006* (Avian Power Line Interaction Committee 2006).

- During future construction activities, newly-installed LWS poles would be designed to be avian-safe with newly available equipment and consistent with the *Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006* (Avian Power Line Interaction Committee 2006).

- Clearance surveys, including avian species, will be conducted no more than 30 days prior to the start of construction in a particular area to identify potential plant and animal species that could be present during construction activities. Clearance surveys will be conducted by a qualified botanist and wildlife biologist and will be limited to areas directly impacted by construction activities.

- A qualified biologist will be present during clearing and restoration activities to ensure that native habitat (coastal sage scrub) removal will be minimized.

- Restoration activities in disturbed areas of native habitat (coastal sage scrub) will continue to be implemented in accordance the CDFW SAA and HRMP requirements, as applicable.

- Implement Worker Environmental Awareness Training (See [PEA] Section 3.9.7).

- Surveys for protected trees will be conducted by a certified arborist to identify trees meeting regulatory protection standards. When applicable, the proper permit will be obtained for trimming and/or removal of protected trees.

APM BIO-2: Special Status Plants.

- Focused surveys for Lyon's pentachaeta and Conejo dudleya to be conducted no more than 30 days prior to start of construction in areas with potentially suitable habitat.[3]

- Areas supporting Lyon's pentachaeta will be flagged prior to project activities by a qualified biologist and avoided during construction. In addition, a biological monitor will be present during project activities occurring within the vicinity of these resources to ensure that no sensitive species will be impacted.[4]

- Areas supporting Conejo dudleya will be flagged prior to project activities by a qualified biologist and avoided during construction. In addition, a biological monitor will be present during project activities occurring within the vicinity of these resources to ensure that no sensitive species will be impacted.[5]

- When digging holes for pole replacements within Lyon's pentachaeta critical habitat the upper six (6) inches of topsoil will be salvaged/stockpiled within Lyon's

3 August 30, 2010 letter from SCE to Ms. Diane K. Noda, Field Supervisor, Ventura Fish and Wildlife Office in [PEA] Appendix F.
4 *Ibid*.
5 *Op cit.* 6

pentachaeta critical habitat in order to maintain the native seed bank. The topsoil will be stored on a protective surface (such as a tarp), piled no more than three feet high, and was replaced (within two weeks) as the top layer when ground disturbing work was completed.[6]

- Where applicable, disturbed areas within Lyon's pentachaeta habitat will continue to be restored in accordance with the CDFW SAA and HRMP requirements.[7]

APM BIO-3: Special Status Birds.[8]

- Focused protocol surveys to be conducted prior to construction for the coastal California gnatcatcher (*Polioptila californica californica*).

- During the breeding season (February 15 through August 30), a protocol survey for the coastal California gnatcatcher will be conducted prior to construction by a wildlife biologist possessing a valid recovery permit from the USFWS for the coastal California gnatcatcher.

- If project activities occur during the breeding season (February 15 through August 30), a 500-foot buffer will be established around coastal California gnatcatcher nest sites, and this area will be avoided until the young fledged or until the birds abandoned the nest.

- No grading of habitat occupied by nesting coastal California gnatcatchers (including a 500-foot buffer area in all direction from the nest) will occur during the breeding season (February 15 through August 30).

- Project activities that will occur within 500 feet of a mapped coastal California gnatcatcher territory will be monitored by a qualified biologist who possesses a valid recovery permit for the species.

APM BIO-4: Nesting Bird Protection. SCE will develop and implement a project-specific nesting bird management plan (the plan) addressing nesting birds in collaboration with the CDFW and USFWS as needed. The plan would be an adaptive management plan to be updated as needed improvements are identified or conditions in the field change. Conditions typically implemented in this plan would include: nest management and avoidance, field approach (survey methodology, reporting, and monitoring), and the Project avian biologist qualifications. The avian biologist would be responsible for oversight of the avian protection activities including the biological monitors. In order to minimize impacts to nesting birds (common or special status), ongoing preconstruction surveys and daily sweep surveys of active construction areas by a qualified biologist would focus on breeding behavior and a search for active nests, as defined by CDFW and USFWS, within 500 feet of the Project. At a minimum, the plan would include the following:

- For vegetation clearing that needs to occur during the typical nesting bird season (February 1 to August 31; as early as January 1 for raptors) qualified biologists would conduct nesting bird surveys. If an active nest were located, the appropriate avoidance and minimization measures from the management plan would be

6 *Op cit.* 6
7 February 16, 2010 California Department of Fish and Wildlife Streambed Alteration Agreement for the Moorpark Newbury Park 66kV Line Area Notification #1600-2011 0325-R5 Revision 2; contained in [PEA] Appendix F.
8 *Op cit.* 6

implemented. If active nest removal is required, SCE would consult with CDFW and USFWS;

- During the typical nesting bird season, SCE would conduct preconstruction clearance surveys no more than 14 days prior to construction and in accordance with the adaptive management plan, to determine the location of nesting birds and territories. Preconstruction sweeps would be conducted within 3 days before construction begins at a given project location;

- Nest monitoring would be conducted by Project biological monitors with knowledge of bird behavior;

- Nesting deterrents (e.g., mooring balls, netting, etc.) would be used for inactive nests at the direction of the Project avian biologist in consultation with CDFW and USFWS;

- A Project avian biologist would determine the appropriate buffer area around active nest(s) and provisions for buffer exclusion areas (e.g., highways, public access roads, etc.) along with construction activity limits. The Project avian biologist would determine, evaluate, and modify buffers as appropriate based on species tolerance and behavior, the potential disruptiveness of construction activities, and surrounding conditions; and,

- The Project biological monitor would ensure implementation of appropriate buffer areas around active nest(s) during project activities. The active nest site and applicable buffer would remain in place until nesting activity concluded. Nesting bird status reports would be submitted according to the management plan.

APM WET-1: Worker Environmental Awareness Training. Prior to the start of past construction activities, a Worker Environmental Awareness Plan (WEAP) was developed. A presentation was prepared by SCE and used to train site personnel prior to the commencement of work. A record of all trained personnel was kept. This process would be repeated prior to and during the future construction activities.

The WEAP training included a list of phone numbers of SCE environmental specialist personnel associated with the Project (archaeologist, biologist, environmental compliance coordinator, and regional spill response coordinator), and covered the following topics:

- Biological Resources Training. Workers were informed of general and Project-specific biological impact reduction measures, including:
  - Keep vehicles on existing roads and pads
  - Avoid impacts to drainages
  - Minimize clearing of vegetation
  - Avoid trapping animals by covering trenches/holes at the end of each day
  - Workers informed of requirements and actions under Migratory Bird Treaty Act
  - Workers informed of protected plant and wildlife species that may be found in the Project Area, where they have been identified during past surveys, and protection measures that may be implemented

5.4.4 Impacts and Mitigation Measures

Approach to Analysis

This section identifies potential impacts to biological resources from implementation of the Proposed Project while Section 5.4.5, *Alternatives*, below, identifies potential impacts associated with the alternatives. For both sections, the impact analysis focuses on foreseeable changes to baseline conditions in the context of the significance criteria presented herein. This analysis includes an evaluation of the potential direct and indirect impacts of the Proposed Project and alternatives. Definitions and examples of these effects within the context of biological resources are provided below.

- **Direct Impacts.** Direct impacts are those caused by a project, occurring at the same time and place (CEQA Guideline §15358). Examples of these types of impacts on biological resources include incidental take during construction and habitat removal.

- **Indirect Impacts.** Indirect impacts are those caused by a project, occurring later in time or farther removed in distance, but still reasonably foreseeable (CEQA Guideline §15358). Examples of these types of impacts on biological resources include the discharge of sediment or chemicals that adversely affect water quality downstream of a project site, and an increase in human activity during project operations.

The Proposed Project has the potential for direct and indirect impacts on biological resources. These potential impacts include disturbance of special-status plant and wildlife species and their natural habitats during Proposed Project construction and operation. The impact analysis assumes that the APMs identified by SCE would be implemented to avoid or minimize environmental impacts. Where needed, additional mitigation measures are proposed to reduce potential impacts to a less-than-significant level.

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 (including List 1A, 1B, and 2 plant species of the CNPS Inventory).

Construction

Impact 5.4-1: Construction activities could result in adverse impacts to rare plants. *Less than significant with mitigation* (Class II)

Focused rare plant surveys for Conejo dudleya and Lyon's pentachaeta were conducted during 2008 and 2010 within 50 feet of each tower and following access routes between the main dirt access road and each tower (BonTerra, 2008; 2010b). Surveys detected a population of approximately 25 flowering Conejo dudleya plants and one flowering Lyon's pentachaeta in the Proposed Project study area in the Conejo Canyons Open Space Area. Ground disturbance in the Conejo Canyons Open Space Area would occur at two proposed guard structure locations measuring approximately 0.1 acre at each location as well as at a 250-foot spur road to be rehabilitated at pole location 32 in Segment 3. Several access roads would also be rehabilitated in

Segment 4; if special-status plants were present in these locations, they could be subject to direct loss and habitat degradation during grading activities. Indirect impacts could also feasibly occur as a result of non-native weeds or invasive plants becoming established within areas disturbed by Proposed Project activities and/or transported into the Proposed Project area on vehicles and construction equipment, respectively. As shown in Section 5.4.3, *Applicant Proposed Measures*, SCE has committed to implementing APM BIO-2, which was developed in consultation with the USFWS to reduce impacts on Lyon's pentachaeta and Conejo dudleya (SCE, 2013a).

No ground disturbance would occur in previously unsurveyed areas. Ground disturbance would occur within Lyon's pentachaeta critical habitat in support of access road rehabilitation (e.g., brushing and light grading) in Segment 4.[9] However, ground disturbance in the Conejo Canyons Open Space Area would occur as discussed above. Conejo dudleya is a perennial herb that would be recognizable during all seasons of the year, and preconstruction surveys would identify any new plants that have established in the work area since 2010 surveys. Lyon's pentachaeta is an annual herb that blooms between March and August, and may or may not be recognizable during pre-construction surveys. Recognizable plants would be flagged and avoided, and otherwise the seed bank would be preserved. Implementation of APM BIO-2 would avoid adverse impacts to Conejo dudleya and Lyon's pentachaeta and no further mitigation would be required to protect these plant species because botanical surveys and protection measures are adequate to avoid or minimize potential impacts to Conejo dudleya and Lyon's pentachaeta.

Botanical surveys performed by BonTerra in spring 2008 and 2010 focused on the potential presence of Lyon's pentachaeta and Conejo dudleya and did not assess the potential presence for all special-status plant species that could occur on-site (BonTerra, 2008; 2010). While many rare plant species potentially present either share an overlapping blooming period with Conejo dudleya and Lyon's pentachaeta or are perennial species recognizable throughout the year, there remain some annual or perennial bulb species that do not have overlapping blooming periods and may not have been detectable during the focused surveys conducted for Conejo dudleya and Lyon's pentachaeta. In particular, the following three non-listed late-blooming species were identified for which further surveys would be needed to characterize their presence or absence on-site: Plummer's mariposa lily; white rabbit tobacco; and chaparral ragwort.

Mitigation Measure 5.4-1a, below, would require that surveys be conducted over an adequate number of visits during the blooming period of each potential plant species consistent with CDFW's *2009 Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities*. This would reduce the potentially significant impact to Plummer's mariposa lily, white rabbit tobacco, and chaparral ragwort to a less-than-significant level by ensuring that these and other rare plants are adequately surveyed for so that, if present, they can be flagged and avoided during construction. Mitigation Measure 5.4-1b, would reduce

[9] The PEA and supplemental Data Responses state that future ground-disturbance would occur in conjunction with guard locations, road rehabilitation areas, and stringing sites (SCE, 2013, p.3-60; SCE, 2014). No guard locations or stringing sites are located along Project Segment 4 where Lyon's pentachaeta critical habitat occurs, and 2 guard locations and a spur road to be rehabilitated are located within suitable Lyon's pentachaeta habitat within Segment 3. These areas were surveyed in 2008 and 2010 (BonTerra, 2008; 2010b).

potentially significant impacts related to the inadvertent introduction or spread of invasive weeds upon rare plants and natural communities in off-road areas.

Mitigation Measure 5.4-1a: Areas of future ground disturbance shall be surveyed for rare plants, including Plummer's mariposa lily, white rabbit tobacco, and chaparral ragwort, in accordance with CDFW's 2009 *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities*, unless otherwise agreed to by CDFW. If no rare plants are encountered, no further mitigation is required. If rare plants are found, the applicant proposed measures related to special-status plants shall be implemented for any identified CRPR Rank 1 or Rank 2 species.

Mitigation Measure 5.4-1b: To reduce the potential for introduction or spread of invasive weeds in sensitive habitats during ground-disturbing activities, SCE shall prepare and implement a Weed Control Plan. The Weed Control Plan shall address the following:

1) A pre-construction weed inventory to be conducted by surveying all areas subject to ground-disturbing activity, including, but not limited to, pole installation sites and construction areas, tower removal sites, pulling and tensioning sites, guard structures, and areas subject to grading for new or improved access and spur roads.

2) During construction of the Project, implement measures to control the introduction and spread of noxious weeds in the Project work area. These shall include:

    a. washing vehicles (including wheels, undercarriages, and bumpers) at existing construction yards, commercial car washes, or similar suitable sites prior to commencing work in off-road areas;

    b. washing tools such as chainsaws, hand clippers, pruners, etc., prior to use in off-road areas;

    c. ensuring that all seeds and erosion-control materials used in off-road areas are weed-free, and any imported gravel or fill material are certified weed free by the county Agriculture Commissioners' Offices before use; and

    d. during Proposed Project operation and maintenance activities, clearing invasive weeds from helicopter landing areas, assembly and laydown areas, spur and access roads, staging areas, and other weed-infested areas; and disposing of weeds in appropriate off-site locations.

Significance after mitigation: Less than significant.

Impact 5.4-2: Construction activities could result in adverse impacts to special-status reptiles. *Less than significant with mitigation* (Class II)

The following five California Species of Special Concern reptiles have potential to occur in the Proposed Project area based on the known ranges of each species and the presence of suitable habitat: silvery legless lizard; western pond turtle; coast horned lizard; two-striped garter snake; and South Coast garter snake. Western pond turtle, two-striped garter snake, and South Coast

garter snake are strongly associated with aquatic features and may occur in association with the four drainages that would be spanned by the Proposed Project. The likelihood of encountering these species at the few work areas near these drainages is considered low. It is unlikely they would be encountered throughout the rest of the Proposed Project area due to the absence of aquatic habitat. There is greater potential to encounter silvery legless lizard and/or coast horned lizard in the more abundant sage scrub, chaparral, and grassland vegetation communities traversed by the Proposed Project. Coast horned lizard is reported from sandy foothills 0.4 mile west of pole location 19 (CDFW, 2015). Silvery legless lizards reside sub-surface below humid coverings of leaf litter; coast horned lizards also favor areas of leaf litter and surface debris in proximity to the mounds of native ants they consume.

Construction activities that would be associated with the Proposed Project could result in significant impacts to special-status reptiles including western pond turtle, coast horned lizard, silvery legless lizard, two-striped garter snake, and South Coast garter snake. However, implementation of Mitigation Measure 5.4-2 would reduce this potentially significant impact to a less-than-significant level.

> **Mitigation Measure 5.4-2:** Within areas that provide potentially suitable habitat for special-status reptiles, SCE and/or its contractors shall perform preconstruction surveys within 24 hours of initial ground disturbance to identify the potential presence of western pond turtle, coast horned lizard, silvery legless lizard, two-striped garter snake, and South Coast garter snake within work areas. If any of these species are identified during surveys of the immediate construction area footprint, individuals shall be relocated from work areas by an individual who is authorized by CDFW to undertake species relocation. A suitable relocation area shall be identified and confirmed in advance with CDFW prior to preconstruction surveys.

Significance after mitigation: Less than significant.

Impact 5.4-3: Construction activities could result in adverse impacts to coastal California gnatcatcher and its habitat. *Less than significant* (Class III)

In 2014, four active coastal California gnatcatcher territories were identified in the Proposed Project area in association with coastal sage scrub habitat near the northernmost two towers in Segment 4, throughout Segment 3, and in the southernmost portion of Segment 2 (Leopold Biological Services, 2014). In all, 113.53 acres of suitable California gnatcatcher habitat was identified within 500 feet of Proposed Project activities; however, habitat impacts would be limited to a fraction of this area. As identified in Impact 5.4-5, 2.38 acres of temporary ground disturbance is anticipated within native grassland and sage scrub vegetation habitat. Within this area of native vegetation disturbance, 0.07 acre of coastal sage scrub habitat (370 linear feet) in Segment 4 would be disturbed by the Proposed Project in support of access road rehabilitation. On the basis of survey findings, the Proposed Project would cause the temporary loss of potential coastal California gnatcatcher habitat in the vicinity of pole locations 45 and 46, in areas there

were unoccupied by gnatcatcher in 2014 (see Figure 5.4-4, *California Coastal Gnatcatcher (CAGN) Suitable Habitat in the Proposed Project Vicinity*) (Leopold Biological Services, 2014). Coastal California gnatcatchers could breed within the unoccupied habitat at a later date, prior to disturbance; however, this species was not detected and is presently considered absent from disturbance areas within potentially suitable habitat. No disturbance is proposed within active territories. Because the gnatcatcher was not identified in disturbance sites during protocol-level surveys and the Proposed Project is outside of designated critical habitat for this species, no compensatory mitigation is proposed for coastal California gnatcatcher habitat losses. Note that disturbances to sage scrub habitat are separately addressed by APM BIO-1, which provide that restoration activities in disturbed areas of native habitat (coastal sage scrub) will be implemented in accordance the CDFW SAA and HRMP requirements, and Mitigation Measure 5.4-5.

The implementation of APM BIO-4, presented in Section 5.4.3, would avoid potential significant impacts to protected common and special-status birds and their nests, including coastal California gnatcatcher. The measure includes focused protocol-level surveys to be conducted by a USFWS-permitted individual prior to construction within suitable habitat; the establishment of 500-foot no-work buffers around habitat occupied by coastal California gnatcatchers between February 15 through August 31, and monitoring of activities within 500 feet of identified coastal California gnatcatcher territories by a USFWS-permitted biologist. Active nest sites and applicable buffers would remain in place until nesting activity is concluded and with advance concurrence from the USFWS. Implementation of APM BIO-4 would ensure the potential impact to coastal California gnatcatcher would be less than significant.

Mitigation: None required.

Impact 5.4-4: Construction activities may impact common or protected nesting migratory birds. *Less than significant* (Class III)

Construction

Construction activities associated with the Proposed Project, such as grading, preparation of temporary work areas, pull and tension sites, and access roads; operation of heavy equipment; installation and removal of poles/towers; and conductor installation, could disturb nesting birds and cause nest site abandonment and/or reproductive failure through an increase in noise, human presence, and/or removal of habitat. Special-status birds that may nest in the Proposed Project area include burrowing owl, loggerhead shrike, and coastal cactus wren, though the protective provisions of the Migratory Bird Treaty Act also apply to common bird species.

Indirect impacts from human disturbances and construction noise could cause nest abandonment, death of young, or loss of reproductive potential at active nests located near the Proposed Project sites. However, implementation of APM BIO-4, presented in Section 5.4.3, would avoid potential significant impacts to protected common and special-status birds and their nests. The measure includes preconstruction surveys for avian species within 500 feet of the Proposed

Project and ongoing avian surveys during construction during the typical nesting bird season (February 1 to August 31; as early as January 1 for raptors). Non-work buffer areas would be established if nests are identified during surveys. Active nest sites and applicable buffers would remain in place until nesting activity would be concluded. Implementation of the APM would ensure the potential impact to common or protected nesting migratory birds would be less than significant.

Operation and Maintenance

Existing poles and power lines that would be replaced under the Proposed Project pose a risk to raptors as a result of electrocution and collision hazards. Such hazards are a recognized source of raptor mortality. Power line electrocution is the result of two interacting factors: raptor behavior and pole design. Raptors are opportunistically attracted to power lines because they provide perch sites for hunting, resting, feeding, territorial defense, or as nesting structures. Many standard designs of electrical industry hardware place conductors and groundwires close enough together that raptors can touch them simultaneously with their wings or other body parts, causing electrocution. Raptors and other birds may also collide with power lines, which can be difficult for birds to detect for various reasons such as during night flight or during inclement weather conditions. The type and magnitude of such impacts, and strategies to avoid conflicts between birds and new transmission lines have been well described by the Edison Electric Institute's Avian Power Line Interaction Committee (APLIC). The Proposed Project will comply with APLIC "avian-safe" standards, as provided in APM BIO-1, and reduce the potential for raptor electrocution hazards. This would result in a beneficial effect to raptors relative to baseline conditions.

Mitigation: None required.

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b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS.

Impact 5.4-5: Construction could impact native grassland and sage scrub vegetation communities. *Less than significant with mitigation* (Class II)

In total, 2.38 acres of temporary ground disturbance is anticipated at 14 guard locations and two stringing sites, and 0.54 acre of ground disturbance would occur associated with existing access/spur road rehabilitation (SCE, 2014). Native grassland and sage scrub vegetation communities could overlap with the guard locations, stringing sites, and access/spur road rehabilitation sites, and removal of such vegetation would constitute a significant impact. The rehabilitation of the existing access/spur roads would permanently remove vegetation that has become established on roads since prior road maintenance activities, and revegetation requirements would not apply to these areas. Additionally, even if sensitive natural communities do not occur in the area of ground disturbance but do occur nearby, the potential introduction of disturbance-favorable noxious weeds would pose an indirect impact to natural vegetation communities.

SCE has committed to avoiding and minimizing impacts on sensitive natural communities by hiring a botanist to perform pre-construction clearance surveys; by conducting Worker Environmental Awareness Training and instructing workers to keep vegetation clearing to a minimum and keep vehicles on existing roads and pads; and to revegetate temporarily disturbed areas immediately following construction to encourage the reestablishment of sensitive natural communities (see APMs BIO-1 and WET-1 presented in Section 5.4.3, *Applicant Proposed Measures*). However, no prescriptions are described relative to the proposed revegetation activities. To ensure that temporarily disturbed areas would be suitably restored after construction, implementation of Mitigation Measure 5.4-5 would be required. Mitigation Measure 5.4-1b, would reduce potentially significant impacts related to the inadvertent introduction or spread of invasive weeds upon sensitive natural communities.

> **Mitigation Measure 5.4-5:** Revegetation of native habitat areas will follow the prescriptions identified in the 2012 revegetation plan prepared by Wildscape Restoration for the Proposed Project, included as PEA Appendix F5, *Habitat Restoration and Monitoring Plan.* The revegetation plan, which was subject to CDFW review and approval, proposes the use of native revegetation for temporary impacts created by the Proposed Project. Implementation of the plan in disturbed areas will ensure that the functions and values of the disturbed habitat are restored by protecting and restoring soil conditions, restoring topography and topsoil following construction, using local native plants, and controlling aggressive non-native plant species.

Significance after mitigation: Less than significant.

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c) Effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (No Impact)

No wetlands were identified in the study area, but as described in Section 5.4.1, *Setting,* four streambed features are located along the Proposed Project alignment: Arroyo Santa Rosa and Arroyo Simi in Segment 2; an unnamed drainage ditch with downstream connectivity to Arroyo Simi, also located in Segment 2; and an unnamed tributary to Conejo Creek in Segment 3. The proposed subtransmission line alignment would span these creeks. Pole locations are in upland areas, and the staging and activities related to stringing electrical lines would also be located in upland areas. SCE would comply with a General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, which would incorporate Stormwater Pollution Prevention Program (SWPPP) and other common construction Best Management Practices (BMPs) including erosion control/soil stabilization, sediment control, wind erosion control, tracking control, stormwater management, and waste management and materials pollution controls. With direct impacts to wetlands and waters avoided through Proposed Project design, and potential indirect impacts avoided through implementation of SWPPP measures and construction BMPs, no aspects of the Proposed Project are expected to directly or indirectly impact jurisdictional wetlands (No Impact).

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

Impact 5.4-6: Interference with the movement of a native upland wildlife species or with established native resident or migratory wildlife corridors. *Less than significant* (Class III)

The Proposed Project is located within an area that has natural features conducive to a wildlife corridor connecting larger areas of open space in the north, east, and west. The Proposed Project area was identified by the South Coast Missing Linkages Project (Penrod et al., 2006) as a potentially important north-south migration corridor for a number of important species indicative of overall ecosystem health. Given the small ground footprint of the Proposed Project and co-location of proposed facilities with existing facilities, it is not expected to hinder regional wildlife movement between these larger areas of open space or to significantly alter current patterns of wildlife movement. The impact would be less than significant.

Mitigation: None required.

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

Impact 5.4-7: Tree removal and pruning. *Less than significant* (Class III)

Tree protection ordinances have been identified by Ventura County, the City of Moorpark, and the City of Thousand Oaks. SCE has identified the following tree removal and pruning activities that would occur with implementation of the Proposed Project (SCE, 2013a; SCE, 2014):

- *Segment 1*: No anticipated vegetation clearance.
- *Segment 2*: Some tree trimming and/or removal depending on the type and size of trees, and location relative to construction work areas and/or interference with GO 95. It is anticipated that one eucalyptus tree north of Los Angeles Avenue) would be removed; approximately 12 carrotwood trees along Montair Drive would be trimmed; and approximately 3 pine trees would be removed.
- *Segment 3*: No trees would be removed or trimmed.
- *Segment 4*: Approximately 40 trees on the Newbury Substation property would be trimmed or removed including myoporum, eucalyptus, Brazilian pepper, California pepper, and Chinese elm. No oaks would be trimmed or removed.

As described in APM BIO-1, SCE has committed to hiring a certified arborist to conduct a tree survey for the purpose of identifying protected trees, and acquiring applicable ministerial permits from Ventura County, the City of Moorpark, and the City of Thousand Oaks. With these actions, tree removal and pruning would not conflict with local tree protection policies or ordinances and the associated impact would be less than significant.

Mitigation: None required.

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f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan. (No Impact)

No habitat conservation plans or natural community conservation plans apply to areas that would be traversed by the Proposed Project. The Proposed Project would traverse the Conejo Canyons Open Space area managed by COSCA, which is a joint powers agency between the City of Thousand Oaks and the Conejo Recreation and Park District. Area management is guided by COSCA's *Conejo Canyons Open Space Management Plan* (COSCA, 2010). The plan describes SCE's electrical distribution lines and towers as located just beyond and parallel to the western boundary of the plan area, with portions of the access road rights-of-way for the transmission lines crossing the western plan boundary and local distribution lines and access easements crossing the southern plan boundary. Utility access roads sometimes serve as multi-purpose trails for recreational users. The Proposed Project would not conflict with the Conejo Canyons Open Space Management Plan because SCE has an easement through this area that is identified and described in the management plan, and that provides for construction and maintenance activities within the utility corridor (No Impact).

5.4.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the construction, operation, and maintenance related impacts that would result under the Proposed Project, as discussed in Section 5.4.4, *Impacts and Mitigation Measures*, would not occur. There would be no impact under No Project Alternative 1 (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. Previously disturbed work areas would be regraded and/or cleared of vegetation as required for access, but otherwise no additional ground disturbing activity would occur. Infrastructure removal would potentially affect many of the same botanical, wildlife, and wetland resources as the Proposed Project, as removal would occur within the same alignment as the Proposed Project. Impacts under No Project Alternative 2 would be similar to those under the Proposed Project, and the same APMs and mitigation measure identified for impacts under the Proposed Project would be applied such that potential impacts to biological resources would be reduced to less than significant. Grading and clearing activities could encounter special-status plants, potentially

including Conejo dudleya or Lyon's pentachaeta (Impact 5.4-1), but would be less than significant with implementation of Mitigation Measures 5.4-1a and 5.4-1b (Class II). Equipment and workers could encounter and potentially harm special-status reptiles whose distribution includes the No Project Alternative 2 area (silvery legless lizard; western pond turtle; coast horned lizard; two-striped garter snake; and South Coast garter snake), or disturb habitat for these species (Impact 5.4-2), but would be less than significant with implementation of Mitigation Measure 5.4-2 (Class II). With implementation of Mitigation Measure 5.4-5, disturbance to native grassland and sage scrub vegetation communities from infrastructure removal (Impact 5.4-5) would be less than significant (Class II).

As described for the Proposed Project, no wetlands occur in the study area, nor do habitat conservation plans or natural community conservation plans apply to areas that would experience infrastructure removal activities under No Project Alternative 2. Thus, No Project Alternative 2 would have no impact under significance criteria c) and f) (No Impact). Also, the alternative would not hinder movement of a native upland wildlife species or interfere with established native resident or migratory wildlife corridors (Impact 5.4-6, Class III). APMs identified by SCE would ensure that potential impacts would be less than significant to coastal California gnatcatcher, common and protected nesting migratory birds during project construction (Impacts 5.4-3 and 5.4-4). APMs also provide consistency with local policies or ordinances protecting biological resources, with no additional mitigation required to address potential impacts to these species (Impact 5.4-7, Class III).

There would be no operation or maintenance activities associated with No Project Alternative 2, and thus there would be no impacts related to operations or maintenance.

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5.5 Cultural Resources

This section addresses the potential impacts of the Proposed Project and alternatives on cultural resources. Cultural resources include prehistoric and historic sites, structures, districts, places, and landscapes, or any other physical evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious or any other reason. Under the California Environmental Quality Act (CEQA), paleontological resources, although not associated with past human activity, are grouped within cultural resources. For the purposes of this analysis, cultural resources may be categorized into the following groups: archaeological resources, historic resources (including architectural/engineering resources), contemporary Native American resources, human remains, and paleontological resources.

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric-era (before European contact) or historic-era (after European contact). The majority of such places in California are associated with either Native American or Euro-American occupation of the area. The most frequently encountered prehistoric or historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and rock art sites. Historic-era archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

Historic resources include standing structures, infrastructure, and landscapes of historic or aesthetic significance that are generally 50 years of age or older. In California, historic resources considered for protection tend to focus on architectural sites dating from the Spanish Period (1529-1822) through World War II (WWII) and Post War era facilities. Some resources, however, may have achieved significance within the past 50 years if they meet the criteria for exceptional significance. Historic resources are often associated with archaeological deposits of the same age.

Contemporary Native American resources, also called ethnographic resources, can include archaeological resources, rock art, and the prominent topographical areas, features, habitats, plants, animals, and minerals that contemporary Native Americans value and consider essential for the preservation of their traditional values. These locations are sometimes hard to define and traditional culture often prohibits Native Americans from sharing these locations with the public.

Paleontology is a branch of geology that studies the life forms of the past, especially prehistoric life forms, through the study of plant and animal fossils. Paleontological resources represent a limited, non-renewable, and impact-sensitive scientific and educational resource. As defined in this section, paleontological resources are the fossilized remains or traces of multi-cellular invertebrate and vertebrate animals and multi-cellular plants, including their imprints from a previous geologic period. Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits (rock formations) where they were originally buried. Paleontological resources include not only the actual fossil remains, but also the collecting localities, and the geologic formations containing those localities.

5.5.1 Setting

Geographic Setting

As discussed in detail in Section 5.7, *Geology and Soils*, the study area is located within the western Transverse Ranges geomorphic province. The Transverse Ranges are characterized by west-east trending mountain ranges and ridges separated by intervening valleys.

The Proposed Project alignment traverses from north to south across the Little Simi Valley, over the Las Posas Hills, across the Santa Rosa Valley, and through the Calleguas Hills. The northern portion of the Proposed Project area is fairly level and is characterized by developed and disturbed landforms, while the southern portion is less developed and more rugged. Elevations range from 420 to 1,150 feet above mean sea level. The Arroyo Simi, which flows southwest through the Little Simi Valley, and Conejo Creek, which flows through the Santa Rosa Valley and through the Calleguas Hills, are the most significant drainages in the vicinity of the Proposed Project.

While the northern portion of the Proposed Project area is developed or covered by non-native plants, prehistorically it would have supported several native plant communities, including native grassland on the valley floor, coastal sage scrub on the lower and drier hill slopes, and chaparral at higher elevations and on north-facing slopes. Animals once present within the area included bear, mountain lions, bobcats, badgers, coyotes, mule deer, and gray foxes (Schmidt, 2007).

Cultural Setting

Prehistoric Setting

It is not definitively known when human habitation in California first began, though radiocarbon dates from the Arlington Springs Woman site on Santa Rosa Island prove a human presence in the region by about 13,000 years before present (B.P.) (Glassow et al., 2007). This first period of human occupation, often referred to as the Paleoindian Period, is characterized by small groups of nomadic hunter-gatherers. The Paleoindian assemblage included a limited collection of rough and simplistic tool types, each used for multiple tasks or purposes; key artifacts within the later Paleoindian Period assemblage are fluted projectile points. Evidence from the Surf site near the mouth of the Santa Ynez River indicates that earliest inhabitants of the Santa Barbara Channel area collected shellfish and produced flake tools using local chert (Glassow et al., 2007).

After about 9,000 years B.P., a shift in subsistence and settlement strategies occurred, illustrating the abandonment of Paleoindian traditions for a more diverse exploitation of a broader natural environment, including a more successful utilization of coastal chaparral zones. The population of the Santa Barbara Channel area began to expand at this time and occupation seems to have concentrated along the coast, although this pattern could in fact be related to a lack of well-preserved inland sites (Glassow et al., 2007).

Milling equipment is first observed in the archaeological record by about 7,500 years B.P., a period identified as the Millingstone Horizon (Glassow et al., 2007). Archaeologically the

Millingstone Horizon is identified by a more diversified stone tool assemblage and included fine-worked projectile points, a large number of milling slabs, as well as ornamental and ceremonial objects. By 6,000 years B.P., mortars and pestles began to appear in household assemblages. This may signify an increased dependence on new food sources such as acorns and starchy tubers. Increases in shell beads, ritual objects, changing mortuary practices, and evidence of increasing trade across the channel between the islands and the mainland, all point to a corresponding increase in social complexity between 7,000 and 4,000 years B.P. Little is known about the social organization of Millingstone groups, but available evidence indicates that they likely consisted of small extended family groups with minimal social differentiation or political leadership (Glassow et al., 2007).

Between 4,000 and 2,000 years B.P., new technologies such as the use of asphaltum (tar), net weights, and fishhooks came into use, suggesting an intensification in fishing and coastal trade and a focus on a maritime economy (Glassow et al., 2007). In addition, the mortar and pestle came into wide use, indicating a greater variety of plant foods were utilized. Increasing population densities and numbers of permanent settlements along the coast after 500 B.C. led to competition for resources and increased socioeconomic differentiation. Coastal sites of this period contain substantial midden deposits and cemeteries that were in use for long periods of time, reflecting this population trend (Glassow et al., 2007).

Two important technological advances were achieved around 500 Anno Domini (A.D.): the introduction of the *tomol* (wooden plank canoe) and the bow and arrow. The tomol, which may have been developed as early as 500 A.D., allowed for passage into deeper waters, facilitating trade and the procurement of large fish and sea mammals (King, 1990; Glassow et al., 2007). The bow and arrow, also adopted around 500 A.D. as it was in other regions of California, was used both to hunt large game as well as in inter-group warfare. By the time the Spanish arrived in the 16th century, the Chumash people (the ethnographically documented culture of the Santa Barbara Channel) had developed a complex culture with a ranked society, complex trade networks, and a monetary economy based on shell beads. At that time, the Chumash had the most complex political and economic system in all of western North America (Glassow et al., 2007).

Ethnographic Setting

The primary ethnographic group present in the Proposed Project area at the time of Spanish contact was the Chumash. Kroeber (1925) identified the Chumash as "predominantly a coast people" that "were more nearly maritime in their habits than any other Californian group." Chumash territory included the Topanga and Malibu areas in the south, north to the approximate location of Morro Bay and east across the coastal range toward the San Joaquin Valley. Several of the northern Channel Islands were also included within Chumash territory. The Proposed Project area lies within the southern end of Ventureño Chumash, near the border with the Fernandeño Gabrielino to the south. Five Chumash villages were known to have existed in the area, named *Shumpashi*, *Shimiyi* (Simi), *Lalimanuc*, *Kayiwish*, and *S'apwi* (King, 1975). Chumash society consisted of tribal groups lead by a single chief who was responsible for the management and distribution of tribal resources. The nearest village to the Proposed Project area was S'apwi, which may have been located north of present-day Newbury Park (King and Parsons, 2000).

Chumash settlement sites included established village sites with large, circular residential huts of willow or pole construction and covered with tule mats or thatch. Also present within a Chumash village was a large ceremonial lodge or sweathouse. Along with more permanently settled villages, temporary short-term camps were established by the Chumash for use during resource foraging excursions.

The Chumash represented a complex society with a strict social order, with a well-established and prosperous system of trade, and standardized money exchange in the form of shell beads. With settlements along the Channel Islands, the Chumash were master maritime navigators, having developed the *tomol*, wooden plank canoes, to ferry people and trade goods between the islands and the mainland. Other key cultural items representative of the Chumash are finely crafted basketry of all forms, sizes, and decorations. Chumash peoples made use of their diverse environment, capitalizing upon a wide range of natural and animal resources for food and as raw material for the crafting of function tools and non-functional, ornamental items (Kroeber, 1925). Burial practices of the Chumash involve mourning ceremonies and permanent cemeteries near to villages. Personal items of the deceased as well as other offerings or objects were typically placed into the grave, prior to the completion of burial.

Historic Period

Although Spanish explorers made brief visits to the region in 1542 and 1602, sustained contact with Europeans did not commence until the onset of the Spanish Period. In 1769, Gaspar de Portolá led an expedition from San Diego, passing through the Los Angeles Basin, San Fernando Valley, and Santa Clarita Valley on its way to the San Francisco Bay (McCawley, 1996). This was followed in 1776 by the expedition of Father Francisco Garcés and the expedition of Juan Bautista de Anza in 1775 and 1776 (Johnson and Earle, 1990). A member of this expedition, Santiago Pico, received a grant of 113,000 acres, El Rancho Simi, in 1795. Other Spanish land grants within the area include Rancho Conejo, Rancho Las Posas, and Rancho Callueguas (Schmidt et al., 2008). These four land grants meet at a point near the Proposed Project alignment.

In the late 18th century, the Spanish began establishing missions in California and forcibly relocating and converting native peoples. Mission San Buenaventura (established 1782) and Mission San Fernando (established 1797) were the nearest missions to the Proposed Project area (Schmidt et al., 2008). The Ventureño Chumash were primarily sent to Mission San Buenaventura. Disease and hard labor took a toll on the native population in California; by 1900, the Native Californian population had declined by as much as 90 percent (Cook, 1978). In addition, native economies were disrupted, trade routes were interrupted, and native ways of life were significantly altered.

By the early 1800s Spanish control over the area known as Alta California was weakening, eventually leading to the establishment of the independent Republic of Mexico in 1821. Mexico continued to promote settlement of California with the issuance of land grants. In 1833, Mexico began the process of secularizing the missions, reclaiming the majority of mission lands, and redistributing them as land grants. In 1846, the Mexican-American War broke out. Mexican forces were eventually defeated and Mexico ceded California to the United States as part of the

Treaty of Guadalupe Hildalgo in 1848. California officially became one of the United States in 1850 (Starr, 2007).

When the discovery of gold in northern California was announced in 1848, a huge influx of people from other parts of North America flooded into California. The first transcontinental railroad was completed in 1869, connecting San Francisco with the eastern United States. Newcomers poured into northern California (Starr, 2007). Southern California experienced a trickle-down effect, as many of these newcomers made their way south. The Southern Pacific Railroad extended this line from San Francisco to Los Angeles in 1876. The second transcontinental line, the Santa Fe, was completed in 1886 and caused a fare war, driving fares to an unprecedented low and encouraging large numbers of people to immigrate to Southern California. During the first three decades of the 20th century, more than 2 million people moved to Southern California, transforming it from a largely agricultural region into a major metropolitan area (Starr, 2007).

The Moorpark and Conejo Valley areas remained largely rural and agricultural through the 1950s. The City of Moorpark was first settled in 1887 but was not incorporated until 1983 (City of Moorpark, 2014). The city now has a population of 34,000. The City of Thousand Oaks, which includes the community of Newbury Park, was incorporated in 1964 and now has more than 127,000 residents (City of Thousand Oaks, 2014).

Studies and Investigations

Three cultural resources studies have been conducted in connection with the Proposed Project, including a Phase I cultural resources study of tower locations (Schmidt, 2007), an Extended Phase I investigation (Schmidt et al., 2008), and a Phase I study of guard structure and stringing site locations (Ramirez and Hunt, 2015).

Records Search

Records searches were conducted through the South Central Coastal Information Center (SCCIC) in 2007 (Schmidt, 2007). The records searches included an examination of previous cultural resources survey coverage, reports, and known cultural resources within a 0.25-mile radius of the Proposed Project alignment. Documentation reviewed included survey and evaluation reports, archaeological site records, historic maps, the California Points of Historical Interest, the California Historical Landmarks, the California Register of Historical Resources (CRHR), the National Register of Historic Places (NRHP), and the California State Historic Resources Inventory listings.

The SCCIC records searches show 28 previously conducted studies within the 0.25-mile search radius, of which 17 overlap a portion of the Proposed Project alignment. No cultural resources have been previously recorded within the 0.25-mile records search radius.

Native American Contact

The Native American Heritage Commission (NAHC) conducted a search in late 2007 of the Sacred Lands File (SLF) in order to identify cultural resources or areas of concern to Native Americans within the Proposed Project vicinity. The NAHC's search of the SLF "failed to indicate the presence of Native American cultural resources in the immediate project area." The NAHC also provided a list of 11 Native American individuals or organizations that may have knowledge of cultural resources in the Proposed Project area (Schmidt, 2007).

Correspondence was conducted with all individuals and groups indicated by the NAHC as having affiliation with the Proposed Project site. Correspondence consisted of letters sent by Southern California Edison (SCE) on December 11, 2007, describing the Moorpark-Newbury 66 kV Subtransmission Line project and a map showing the Proposed Project area. Recipients were invited to reply with any information they could share about Native American resources that might be affected by the Proposed Project. To date, one response has been received from the Owl Clan, expressing concern for Chumash cultural sites within and near the Proposed Project area.

A second NAHC inquiry was made by SCE in November 2012. The NAHC provided a list of 22 Native American individuals or organizations that may have knowledge of cultural resources in the Proposed Project area, of which ten had been previously contacted in 2007. SCE sent letters to all 22 individuals or organizations on the NAHC's list. One response has been received to date. Ms. Isabella Ayala, the Ventura County Regional Representative from the Coastal Band of the Chumash Nation, requested that she be contacted if the Proposed Project would impact Native American cultural resources.

Pedestrian Survey

A cultural resources pedestrian survey was conducted in the Proposed Project area in 2007 (Schmidt, 2007). Areas surveyed included proposed lay down areas; the originally proposed access roads that required improvement; and a 100-foot diameter area around each pole location. In addition, a 100-foot-wide corridor was surveyed in the Santa Rosa Valley between pole location 20 and pole location 26. Moorpark Substation and Newbury Substation were not surveyed, as these sites are highly disturbed.

The 2007 pedestrian survey identified three previously unidentified prehistoric archaeological resources, two of which could have been impacted by past project activities (P-56-100196, a prehistoric lithic scatter, and P-56-001797, prehistoric lithic scatter and midden described in detail in the *Cultural Resources within the Proposed Project Area* discussion below). Extended Phase I subsurface archaeological investigations were conducted at each of the two sites located within the Proposed Project area. These investigations included excavation of surface scrapes, shovel test pits, one 1x1 meter controlled excavation unit at P-56-001797, and mapping of each of the resource areas (Schmidt et al., 2008). A Native American monitor was present during the archaeological investigations. The results of the extended Phase 1 subsurface archaeological investigations are presented in the *Cultural Resources within the Proposed Project Area* discussion below.

A cultural resources survey of 14 proposed guard structure locations and the stringing site adjacent to pole location 35 was conducted in 2014 (Ramirez and Hunt, 2015). The sites were surveyed using transects spaced no more than two meters apart. No cultural resources were documented.

Cultural Resources within the Proposed Project Area

Resource P56-100196 (MN-1) was recorded as a sparse flake scatter with a few fragments of marine shell (Schmidt, 2007). The Extended Phase I investigation found that the site was disturbed and did not contain a subsurface component (Schmidt et al., 2008). As such, the site was recommended not eligible for inclusion in the CRHR or local registers and is not considered a historical resource or unique archaeological resource under CEQA.

P56-001797 (MN-2, CA-VEN-1797) was originally recorded as a sparse flake scatter with a variety of material types and fire-altered rock in midden soil (Schmidt, 2007). The Extended Phase I investigation revealed that P-56-001797 contained a subsurface component between 0 and 80 centimeters below the surface (Schmidt et al., 2008). Artifacts recorded during the Extended Phase I investigation included a biface tool, cores, fragments of faunal bone, and carbonized plant remains. Excavation also revealed a prehistoric feature consisting of a dense concentration of fire-affected rocks, charcoal, and ashy soil. The feature covered an area approximately 12 meters in diameter and was 50 to 60 centimeters thick. Radiocarbon analysis of two charcoal samples recovered from the feature resulted in dates of approximately 950 and 1,250 years B.P. Based on this, resource P-56-001797 was recommended eligible for the CRHR under Criterion 4 (potential to yield information important to prehistory or history) and is considered a historical resources under CEQA.

Paleontological Setting

This section summarizes the environmental setting from a paleontological perspective, both regionally and specific to the Proposed Project area, including presence of potentially fossiliferous geologic units and nearby known paleontological resources.

As described in Section 5.7, *Geology and Soils*, the geologic units present along the Proposed Project alignment include Quaternary alluvium, the Saugus Formation, the Las Posas Sand, the Sespe Formation, and the Conejo volcanics. Holocene (less than 11,000 B.P.) and Late Pleistocene (11,000 to 1.8 million years B.P.) alluvium is present in the Little Simi Valley and Holocene alluvium is present in the Santa Rosa Valley. These poorly consolidated silt, sand, and gravel deposits were emplaced along modern drainages and alluvial fans and floodplains. Because this unit spans both the Holocene and Pleistocene epochs, the paleontological sensitivity varies with depth. Paleontologic resources are generally those older than 5,000 years B.P., so more recent Holocene age alluvium by definition does not contain paleontological resources. Fossils from Pleistocene alluvial sediments are well represented throughout the Transverse Ranges. According to University of California Museum of Paleontology (UCMP) records, Quaternary fossils from Ventura County include birds, horses, bison, seal, and mammoth. Alluvial deposits are present along portions of Proposed Project Segments 1 and 2.

The Saugus Formation (rocks 2.6 million years to 10,000 years old) is composed of loosely consolidated nonmarine sandstone, conglomerate, and siltstone. UCMP does not indicate record of vertebrate fossils in the Saugus Formation. The Saugus Formation is exposed in the Las Posas Hills along Segment 2.

The Las Posas Sand (rocks aged 5.3 to 2.6 million years) consists of weakly indurated fine to medium grained sand exposed in the hills flanking Little Simi Valley. The UCMP has one record of a horse tooth fossil found in the Las Posas Sand in Ventura County. A short section of Segment 2 traverses the Las Posas Sand in the Las Posas Hills.

The Sespe Formation consists of nonmarine sandstone, pebbly sandstone, and claystone deposited by streams in the Oligocene (23 to 33 million years B.P.). In Ventura County, the UCMP contains records of many mammals, including anteaters, ungulates (like deer), clawed herbivores, large-toothed cats, as well as reptiles and birds. A short section of Segment 2 crosses the Sespe Formation in the Las Posas Hills, just south of a proposed stringing site.

The Conejo Volcanics are generally andesitic and basaltic igneous rocks of mid-Miocene age (most were deposited between 13 and 16 million years ago; Yerkes and Campbell, 1979). Igneous rocks have very low likelihood of containing paleontological resources. UCMP collections do not indicate any record of vertebrate fossils from the Conejo Volcanics in California. The Conejo Volcanics are exposed along Segments 2, 3, and 4.

The UCMP maintains a collection of fossil and modern organisms from all over the world, and has a catalog available to the public. A locality search (a search for fossil records in a specific location and formation) was conducted using the UCMP online catalog. The results are included in **Table 5.5-1**, *Fossil Records Search Results for the Proposed Project Area***,** below (UCMP, 2014).

TABLE 5.5-1
FOSSIL RECORDS SEARCH RESULTS FOR THE PROPOSED PROJECT AREA

Geologic Unit	Age	Typical Fossil Types	Paleontological Resource Potential*	Proposed Project Segment
Quaternary alluvium	Quaternary	Vertebrates, Invertebrates	Varies with depth (low to high)	Segments 1 and 2
Saugus Formation	Pleistocene, Pliocene	Invertebrates	Low	Segment 2
Las Posas Sand	Pleistocene, Pliocene	Invertebrates, Vertebrates	Low	Segment 2
Sespe Formation	Oligocene	Vertebrates, Invertebrates	High	Segment 2
Conejo Volcanics	Miocene	None	Low	Segments 2, 3, and 4

* Based on the sensitivity criteria established by the Society of Vertebrate Paleontology (SVP, 1995).

SOURCE: UCMP, 2014

Regulatory Setting

Federal, state, and local governments have developed laws and regulations designed to protect significant cultural resources that may be affected by actions that they undertake or regulate. The National Historic Preservation Act (NHPA) and CEQA are the primary federal and state laws governing preservation of historic and archaeological resources of national, regional, state, and local significance.

Federal

National Historic Preservation Act of 1966

Enacted in 1966, the NHPA declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the NRHP, and that the Advisory Council on Historic Preservation must be afforded an opportunity to comment. The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Office, federally-recognized Indian tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects to such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties.

National Register of Historic Places

The NRHP was established by the NHPA of 1966, as "an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (Code of Federal Regulations [CFR] 36 §60.2). The NRHP recognizes both historical-period and prehistoric archaeological properties that are significant at the national, state, and local levels.

To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior, 1995):

A. Are associated with events that have made a significant contribution to the broad patterns of our history;

B. Are associated with the lives of persons significant in our past;

C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for NRHP listing (U.S. Department of the Interior, 1995).

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance" (U.S. Department of the Interior, 1995). The NRHP recognizes the following seven qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

Paleontological Resources

A variety of federal statutes specifically address paleontological resources. They are generally applicable to a project if that project includes federally-owned or federally-managed lands, or involves a federal agency license, permit, approval, or funding. Federal legislative protection for paleontological resources stems from the Antiquities Act of 1906 (PL 59-209; 16 United States Code 431 et. seq.; 34 Stat. 225), which calls for protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal lands.

State

California Register of Historical Resources

Under the California Public Resources Code, Section 5024.19(a), the CRHR was created in 1992 and implemented in 1998 as "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks that number over 1,000, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- **Criterion 1.** It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- **Criterion 2.** It is associated with the lives of persons important in our past.
- **Criterion 3.** It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- **Criterion 4.** It has yielded, or may be likely to yield, information important in history or prehistory.

Furthermore, under Public Resources Code (PRC) 5024.1, Title 14 California Code of Regulations (CCR), Section 4852(c), a cultural resource must retain integrity to be considered eligible for the CRHR. Specifically, it must retain sufficient character or appearance to be recognizable as a historical resource and convey reasons of significance. Integrity is evaluated with regard to retention of such factors as location, design, setting, materials, workmanship, feeling, and association.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the state and is codified at PRC Section 21000 et seq. CEQA requires lead agencies to determine if a project would have a significant effect on the environment, including significant effects on historical or archaeological resources.

Under CEQA (§21084.1), a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. The CEQA Guidelines (Title 14 CCR §15064.5) recognize that a historical resource includes: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR; (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be a historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the CEQA Guidelines apply. If a project may cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired) in the significance of a historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (CEQA Guidelines §§15064.5(b)(1) and 15064.5(b)(4)).

If an archaeological site does not meet the historical resource criteria contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Section 21083, as a unique archaeological resource. As defined in Section 21083.2 of CEQA a "unique" archaeological resource is an archaeological artifact, object, or site, for which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;

- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site is to be treated in accordance with the provisions of Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (§21083.1(a)). If preservation in place is not feasible, mitigation measures shall be required.

The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of a project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines §15064.5(c)(4)).

Paleontological Resources

Paleontological resources are explicitly afforded protection by CEQA, specifically in Section V(c) of Appendix G, the "Environmental Checklist Form," which addresses the potential for adverse impacts to "unique paleontological resource[s] or site[s]." Public Resources Code Chapter 1.7 (§§5097 through 5097.7), *Archaeological, Paleontological, and Historical Sites*, defines any unauthorized disturbance or removal of a fossil site or remains on public land as a misdemeanor and specifies that state agencies may undertake surveys, excavations, or other operations as necessary on state lands to preserve or record paleontological resources (PRC §5097.5). California Penal Code Section 622.5 sets the penalties for the damage or removal of paleontological resources.

Professional Paleontologist Standards

The Society of Vertebrate Paleontology (SVP) has established guidelines for the identification, assessment, and mitigation of adverse impacts on nonrenewable paleontological resources (SVP, 1995). Practicing paleontologists in the nation adhere to the SVP's assessment, mitigation, and monitoring requirements as outlined in these guidelines, which were approved through a consensus of professional paleontologists. The SVP defines the value of paleontological resources and in particular, states the following:

- Vertebrate fossils and fossiliferous deposits are considered significant nonrenewable paleontological resources, and are afforded protection by federal, state, and local environmental laws and guidelines.
- A paleontological resource is considered to be older than recorded history or 5,000 years before present and should not be confused with archaeological resource sites.
- Invertebrate fossils are not significant paleontological resources, unless they are present with an assemblage of vertebrate fossils or they provide undiscovered information on the origin and character of the plant species, past climatic conditions or the age of the rock unit itself.

- Certain plant or invertebrate fossils may be designated as significant by a project paleontologist, special interest group, lead agency or local government.

With these principles, the SVP (1995) has outlined criteria for screening the paleontological potential[1] of rock units and established assessment and mitigation procedures tailored to such potential. **Table 5.5-2**, *Paleontological Potential Criteria***,** lists the criteria for high-potential, undetermined, and low-potential rock units.

TABLE 5.5-2
PALEONTOLOGICAL POTENTIAL CRITERIA

Paleontological Potential	Description
High	Geologic units from which vertebrate or significant invertebrate or plant fossils have been recovered in the past, or rock formations that would be lithologically and temporally suitable for the preservation of fossils. Only invertebrate fossils that provide new information on existing flora or fauna or on the age of a rock unit would be considered significant.
Undetermined	Geologic units for which little to no information is available.
Low	Geologic units that are not known to have produced a substantial body of significant paleontological material, as demonstrated by paleontological literature and prior field surveys, and which are poorly represented in institutional collections.

SOURCE: SVP, 1995.

Local

California Public Utilities Commission (CPUC) General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to cultural resources that would otherwise be relevant to the Proposed Project and alternatives are described below.

Ventura County

Specific goals and policies within the current General Plan for the County of Ventura that apply to cultural resources include (County of Ventura, 2013):

> *Goal 1.8.1 (1)*: Identify, inventory, preserve and protect the paleontological and cultural resources of Ventura County (including archaeological, historical and Native American resources) for their scientific, educational and cultural value.
>
> *Goal 1.8.1 (2)*: Enhance cooperation with cities, special districts, other appropriate organizations, and private landowners in acknowledging and preserving the County's paleontological and cultural resources.

[1] Paleontological potential refers to the likelihood that a rock unit will yield a unique or significant paleontological resource.

Policy 1.8.2 (1): Discretionary developments shall be assessed for potential paleontological and cultural resource impacts, except when exempt from such requirements by CEQA. Such assessments shall be incorporated into a countywide paleontological and cultural resource data base.

Policy 1.8.2 (2): Discretionary development shall be designed or re-designed to avoid potential impacts to significant paleontological or cultural resources whenever possible. Unavoidable impacts, whenever possible, shall be reduced to a less than significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical or paleontological consultants, depending on the type of resource in question.

Policy 1.8.2 (3): Mitigation of significant impacts on cultural or paleontological resources shall follow the Guidelines of the State Office of Historic Preservation, the State Native American Heritage Commission, and shall be performed in consultation with professionals in their respective areas of expertise.

Policy 1.8.2 (4): Confidentiality regarding locations of archaeological sites throughout the County shall be maintained in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.

Policy 1.8.2 (5): During environmental review of discretionary development the reviewing agency shall be responsible for identifying sites having potential archaeological, architectural or historical significance and this information shall be provided to the County Cultural Heritage Board for evaluation.

City of Moorpark

The City of Moorpark's Municipal Code (Chapter 15.36) provides for the identification, protection, enhancement, and use of historic landmarks within the city. It establishes a historical preservation commission, establishes procedures for the designation of local historic landmarks, and requires approval for alteration of such landmarks.

City of Thousand Oaks

The City of Thousand Oaks Cultural Heritage Ordinance (Ordinance No. 265-NS) creates a cultural heritage board and defines standards for listing as a historical, cultural, and natural landmark.

The City of Thousand Oaks General Plan contains the following goal, policies, and implementation measures concerning cultural resources:

Goal: The City shall preserve and protect archaeological resources for future generations and the Conejo Valley's cultural heritage.

Policy CO-32: All information or maps on file with the City pertaining to the location of previously recorded archaeological sites within the Thousand Oaks Planning Area shall remain confidential unless specifically authorized to be released to the public by the local Native American Indian Council.

Policy CO-33: Management of cultural resources such as archaeological sites, historic structures or places shall emphasize resource protection and preservation.

Policy CO-34: The preferred method for preserving any previously recorded archeological site shall be by deed restriction as permanent "open space", in order to prevent any future development or use that might otherwise adversely impact these resources.

Policy CO-35: Decisions pertaining to the disposition of archaeological, historical and cultural resources shall be made in concert with recognized public agencies, groups or individuals having jurisdiction, expertise or interest in these matters, including but not limited to the State Office of Historic Preservation, Thousand Oaks Cultural Heritage Board and local Native American Indian Council, including other designated representatives and affected property owners.

Implementation Measure 1: Continue to conduct archaeological field surveys as deemed to be necessary, while utilizing comprehensive resource management procedures to test, salvage, stabilize and store locally excavated artifacts.

Implementation Measure 2: Support the efforts of local citizens, appointed committees or other designated public agencies and private institutions that are working to conserve archaeological and historic resources. Full public discussion shall be encouraged prior to any action being taken.

5.5.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant cultural resources effects on the environment if it would:

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5;

b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5;

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

d) Disturb any human remains, including those interred outside of formal cemeteries.

CEQA provides that a project may cause a significant environmental effect where the project could result in a substantial adverse change in the significance of a historical resource (PRC §21084.1). CEQA Guidelines Section 15064.5 defines a “substantial adverse change” in the significance of a historical resource to mean physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be “materially impaired” (CEQA Guidelines §15064.5[b][1]).

CEQA Guidelines Section 15064.5(b)(2), defines that the significance of a historic resources is “materially impaired” when a project:

(A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR; or

(B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

5.5.3 Applicant Proposed Measures

SCE proposes the following applicant proposed measures (APMs) to minimize impacts to cultural resources from the Proposed Project. The impact analysis assumes that the following APMs related to cultural resources would be implemented as discussed below.

APM CUL-1: Cultural and Paleontological Resources. A cultural resources survey of the project area was conducted prior to past construction activities. Additionally, a number of physical protection and impact avoidance measures were implemented prior to, and during, past construction activities. These activities would also be implemented prior to, and during, future construction activities:

- Physically isolate within an Environmentally Sensitive Area (ESA) one cultural resource discovered during previous surveys. The ESA is an area in which construction activities are prohibited, and from which construction workers are excluded.
- Utilize an archaeological monitor on site during ground disturbing activity in the vicinity of identified archaeological resources.
- Conduct a preconstruction meeting to orient construction crews to sensitive areas prior to any ground disturbing activity within the vicinity of identified archaeological resources.
- Should cultural material that may yield sensitive information be uncovered during construction, then all work within a 15-meter radius of the discovery will be halted until the find is evaluated by a qualified archaeologist. In the case of unearthing human remains during excavation, no further disturbance occurs until the County Coroner makes the necessary findings as to origin and distribution, pursuant to Public Resources Code Section 5097.98. (No cultural material or human remains were uncovered during past construction activities).
- If construction is halted because of an archaeological discovery, no work begins within that area until written notification from a qualified archaeologist is given to the Project Manager or construction foreman.

APM CUL-2: Unanticipated Discoveries. If previously unidentified cultural resources are discovered during construction, personnel would suspend work in the vicinity of the find. The resource would then be evaluated for listing in the CRHR by a qualified archaeologist, and, if the resource is determined to be eligible for listing in the CRHR, the resource would either be avoided or appropriate archaeological protective measures would be implemented.

If human remains are uncovered during project construction, SCE and/or its contractors shall immediately halt all work in the immediate area, contact the applicable County Coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. Per Health and Safety Code Section 7050.5, upon the discovery of human remains, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. If the applicable County Coroner determines that the remains are Native American, it is anticipated that the Coroner would contact the Native American Heritage Commission in accordance with Health and Safety Code Section 7050.5(c) and Public Resources Code Section 5097.98 (as amended by AB 2641). In addition, SCE shall ensure that the immediate vicinity where the Native American human remains are located is not damaged or disturbed by further development activity until SCE has discussed and conferred, as prescribed in Public Resource Code Section 5097.98, with the most likely descendant regarding their recommendations.

APM CUL-3: Paleontological Resources Protection. To protect paleontological resources, SCE would implement procedures including, but not limited to: preconstruction coordination; recommended monitoring methods; emergency discovery procedures; sampling and data recovery methods, if needed; museum storage coordination for any specimens and data recovered; and reporting requirements.

APM WET-1: Worker Environmental Awareness Training. Prior to the start of past construction activities, a Worker Environmental Awareness Plan (WEAP) was developed. A presentation was prepared by SCE and used to train site personnel prior to the commencement of work. A record of all trained personnel was kept. This process would be repeated prior to and during the future construction activities.

The WEAP training included a list of phone numbers of SCE environmental specialist personnel associated with the Project (archaeologist, biologist, environmental compliance coordinator, and regional spill response coordinator), and covered the following topics:

- Archaeological Resources Training
    - An Environmentally Sensitive Area (ESA) has been physically delineated and marked to protect an archaeological resource
    - All work and equipment staging, storing, and placement shall remain outside the ESA
    - The Project has implemented procedures to follow if unanticipated archaeological resources are discovered, including:
        - If archaeological resources are discovered during construction activities, all work in the vicinity of the find shall halt
        - The archaeological monitor shall be informed
        - The archaeological monitor shall notify the project foreman and SCE archaeologist immediately
        - Archaeological monitors have the authority to temporarily halt work in the area of archaeological discoveries until the resource has been evaluated by a qualified archaeologist

        - Work in the area of the discovery shall not resume until written notification is received from the SCE archaeologist

    - The SCE archaeologist will provide an estimate of how long an excavation of the resource would take

    - The Project has established procedures to follow if human remains are encountered. If human remains are encountered during earth-disturbing activities, State Health and Safety Code Section 7050.5 states that there "shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered [has made the appropriate assessment and] the recommendations concerning the treatment and disposition of the human remains has been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code."

- Biological Resources Training. Workers were informed of general and Project-specific biological impact reduction measures, including:

    - Keep vehicles on existing roads and pads

    - Avoid impacts to drainages

    - Minimize clearing of vegetation

    - Avoid trapping animals by covering trenches/holes at the end of each day

    - Workers informed of requirements and actions under Migratory Bird Treaty Act

    - Workers informed of protected plant and wildlife species that may be found in the Project Area, where they have been identified during past surveys, and protection measures that may be implemented

- SWPPP Training

    - Background on the regulatory climate

    - Education on individual and corporate responsibilities under the Clean Water Act

    - Presentation of activities covered under the Construction General Permit, and requirements of the Construction General Permit

    - Develop and implement a SWPPP

    - Eliminate or control non-stormwater

    - Visual inspections

    - Identification of SWPPP requirements

    - Daily inspection checklist

    - Maps

    - BMPs

- Presentation on spill prevention and control, and spill notification procedures
- Identification of common stormwater violations
- Education on how to identify problems and devise solutions
- Instruction on the importance of maintaining the construction site. All trash must be removed from the job sites daily, and all construction debris shall be removed at the end of construction
- Instructions to notify the foreman and regional spill response coordinator in case of a hazardous materials spill or leak from equipment, or upon the discovery of soil or groundwater contamination
- Instruction that noncompliance with any laws, rules, regulations, or mitigation measures could result in being barred from participating in any remaining construction activities associated with the Project

5.5.4 Impacts and Mitigation Measures

Analysis Approach

Impacts on cultural resources could result from ground-disturbing activities and/or damage, destruction, or alteration of historic structures. Ground-disturbing activities include excavation, grading, trenching, vegetation clearance, the operation of heavy equipment, and other surface and sub-surface disturbance that could damage or destroy surficial or buried archaeological resources including prehistoric and historic remains or human burials. This analysis considers where ground-disturbance would occur and, by examining where ground-disturbance overlaps with known cultural resources, areas of archaeological sensitivity, and geologic units of high paleontological resource potential, assesses the severity of potential impacts and provides mitigation to minimize those impacts, as needed.

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Impact 5.5-1: Construction activities and operation could cause an adverse change in the significance of a historical resource [inclusive of archaeological resources] which is either listed or eligible for listing on the National Register of Historic Places, the California Register of Historical Resources, or a local register of historic resources. *Less than significant with mitigation* (Class II)

Construction

One historical resource, archaeological site P-56-001797, was identified near a Proposed Project component that would require ground disturbance. Proposed Project construction activities could impact the site, which would be a significant impact. In addition, since the Proposed Project would involve ground-disturbing activities that may extend into undisturbed soil, it is possible that such actions could unearth, expose, or disturb subsurface archaeological resources that were not immediately observable on the surface, some of which may qualify as historical resources.

Mitigation Measures 5.5-1a through 5.5-1d, in conjunction with APM CUL-1 and APM WET-1, would reduce potentially significant impacts to historical and archaeological resources to less than significant. APM CUL-1 and APM WET-1 would create an Environmentally Sensitive Area, require monitoring in the vicinity of known archaeological sites, and establish a pre-construction worker sensitivity program. Mitigation Measure 5.5-1a would require the retention of a qualified archaeologist. Mitigation Measure 5.5-1b would require that resource P-56-001797 be avoided during construction of the Proposed Project, and provides additional details regarding the establishment of an Environmentally Sensitive Area. Mitigation Measure 5.5-1c would require full-time archaeological monitoring of construction activity within 100 feet of resource P-56-001797. Mitigation Measure 5.5-1d provides specific requirements to be followed in the event of accidental discovery of cultural resources. With these mitigation measures, impacts to historical and archaeological resources would be less than significant.

Operation and Maintenance

Site P-56-001797 is located immediately adjacent to an existing tubular steel pole. Routine operation and maintenance of the Proposed Project would include repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, tree trimming, and brush and weed control. In addition, conductors could require re-stringing and access roads could require maintenance to repair damage that could occur due to an unforeseen event such as a storm. Any of these operation and maintenance activities could result in impacts to resource P-56-001797. However, Mitigation Measure 5.5-1b, which would require that a qualified archaeologist create a long-term management plan for resource P-56-001797, would reduce potentially significant impacts to historical resources from Proposed Project operation and maintenance to a less-than-significant level.

> **Mitigation Measure 5.5-1a:** SCE and/or its contractors shall retain a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior, 2014), to carry out all mitigation measures related to archaeological resources.
>
> **Mitigation Measure 5.5-1b:** Prior to the commencement of construction activities and in coordination with the qualified archaeologist, the construction zone shall be narrowed or otherwise altered to avoid impacts to resource P-56-001797. In coordination with the qualified archaeologist, avoidance shall be ensured by the delineation of an Environmentally Sensitive Area around the site. Protective fencing or other markers shall be erected around the Environmentally Sensitive Area prior to any ground disturbing activities; however, the Environmentally Sensitive Area shall not be identified specifically as an archaeological site, in order to protect sensitive information and to discourage unauthorized disturbance or collection of artifacts.
>
> If avoidance of site P-56-001797 is demonstrated to be infeasible, prior to the issuance of any grading or building permits, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of the resource to be impacted by construction activities. Treatment may consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data

recovery and/or removal is completed; sample excavation; surface artifact collection; site documentation; and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the CPUC prior to the commencement of construction activities, and shall also be submitted to the South Central Coastal Information Center.

Prior to the commencement of the operation and maintenance phase, the qualified archaeologist, in coordination with SCE, shall develop a long-term cultural resources management plan for archaeological site P-56-001797 in order to minimize future impacts during project operation and maintenance.

Mitigation Measure 5.5-1c: Prior to commencement of construction activities, an archaeological monitor shall be retained by SCE and/or its contractors to monitor all ground-disturbing activities, including grading, excavation, vegetation clearance and grubbing, within 50 feet of archaeological site P-56-001797. The monitor shall be, or shall work under the supervision of, a qualified archaeologist. In the event that cultural resources are unearthed during ground-disturbing activities, the archaeological monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the find so that the find can be evaluated. Evaluation of resources shall follow the procedures set forth in Mitigation Measure 5.5-1d.

Mitigation Measure 5.5-1d: If archaeological resources are encountered during construction, SCE and/or its contractors shall cease all activity within 100 feet of the find until the find can be evaluated by a qualified archaeologist. Per California Environmental Quality Act Guidelines Section 15126.4(b)(3), project redesign and preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with California Environmental Quality Act Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures in consultation with the CPUC, which may include data recovery or other appropriate measures. The qualified archaeologist shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. Archaeological materials recovered during any investigation shall be curated at an accredited curational facility. Work may proceed on other parts of the alignment while treatment is being carried out. The qualified archaeologist shall prepare a report documenting evaluation and/or additional treatment of the resource, which shall be submitted to the CPUC and South Central Coastal Information Center.

Significance after mitigation: Less than significant.

b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5.

Impact 5.5-2: Construction activities could adversely impact a unique archaeological resource. *Less than significant with mitigation* (Class II)

Construction

None of the known cultural resources located within the Proposed Project area have been identified as meeting the criteria for unique archaeological resources. However, since the Proposed Project would involve ground-disturbing activities that may extend into undisturbed soil, it is possible that such actions could unearth, expose, or disturb subsurface or otherwise unique archaeological resources that were not immediately observable on the surface, some of which may qualify as unique archaeological resources. Implementation of Mitigation Measure 5.5-1c, which would require archaeological monitoring of ground-disturbing activities, and Mitigation Measure 5.5-1d, which would provide for measures in the event of an inadvertent discovery of archaeological resources, would reduce the potentially significant impact to currently unknown unique archaeological resources to less than significant.

Operations and Maintenance

Operations and maintenance of the Proposed Project, if it involved subsurface disturbance, could impact unique archaeological resources. However, implementation of Mitigation Measures 5.5-1c and 5.5-1d would reduce this potentially significant impact to a less-than-significant level.

Mitigation: Implement Mitigation Measures 5.5-1c and 5.5-1d.

Significance after mitigation: Less than significant.

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c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact 5.5-3: Excavation could directly or indirectly destroy a unique paleontological resource. *Less than significant with mitigation* (Class II)

Construction

Based on the results of museum collections data and available literature on the geology and paleontology of the Proposed Project area, the two geologic units known to underlie the Proposed Project alignment that have been determined to be of high paleontological sensitivity are the Sespe Formation and Quaternary alluvium. Impacts on paleontological resources would be less than significant at sites underlain by geologic units of low paleontological potential, or where only minor excavation or grading would occur (such as access road rehabilitation and improvements to stringing sites).

The ground disturbing activities associated with construction of the portion of the Proposed Project that traverses the Sespe Formation in the Las Posas Hills would be limited to disturbance caused by vehicles involved in conductor stringing, which would not include excavation. Excavation of Quaternary alluvium would be required for construction of guard structures in the southern Santa Rosa Valley (along Santa Rosa Road) and Little Simi Valley (north of the Moorpark Substation and along Montair Drive, SR 118, and Hitch Boulevard), and for installation of the 500 foot duct bank within Moorpark Substation. It is assumed that each wood pole for the guard structures would require excavation of a hole approximately 10 feet deep and 2 feet in diameter. Approximately 185 cubic yards of material would be removed from a trench dug for the installation of the duct bank. Paleontological resources could be encountered or destroyed during excavation at these locations.

Implementation of APM CUL-3 would reduce the impact of the Proposed Project on paleontological resources by requiring monitoring during excavation, which would increase the likelihood that encountered paleontological resources could be salvaged and adequately recorded. Small scale excavations, even in geologic units of high paleontological potential, have a low probability of encountering fossils. However, in order to adequately reduce the potentially significant impact of the Proposed Project on paleontological resources during excavation in Quaternary alluvium to a less-than-significant level, Mitigation Measure 5.5-3 is required. The activities described in Mitigation Measure 5.5-3 add more specific detail to the description of activities included in APM CUL-3, and are required to be implemented at excavations occurring in Quaternary alluvium.

> **Mitigation Measure 5.5-3:** SCE will hire a qualified paleontologist, as defined by Society of Vertebrate Paleontology guidelines, to monitor excavation activities located in Quaternary alluvium. If the monitor or construction crews discover fossils or fossil-like material during excavation and earth-moving operations, all earthwork and other types of ground disturbance within 50 feet of the find shall stop immediately until the qualified paleontologist can assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the qualified paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the fossil. The paleontologist may also propose modifications to the stop-work radius based on the nature of the find, site geology, and activities occurring on the site.
>
> If treatment and salvage is required, recommendations will be consistent with Society of Vertebrate Paleontology guidelines (SVP, 1995) and currently accepted scientific practice. If required, treatment for fossil remains may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection, and may also include preparation of a report describing the finds. SCE and/or its contractor will be responsible for ensuring that treatment is implemented. If no report is required, SCE and/or its contractor will nonetheless ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means.

Significance after mitigation: Less than significant.

d) Disturb any human remains, including those interred outside of formal cemeteries.

Impact 5.5-4: Construction could result in damage to previously unidentified human remains. *Less than significant* (Class III)

The Proposed Project would not disturb known human remains. The land use designations for the Proposed Project components do not include cemetery uses, and no known human remains exist within the area. However, since the Proposed Project would involve ground-disturbing activities, it is possible that such actions could unearth, expose, or disturb previously unknown human remains. In the event that human remains are discovered during construction activities, the human remains could be inadvertently damaged, which could be a significant impact. However, with implementation of APM CUL-2 and APM WET-1, which require that work halt and the County Coroner be contacted in the event of the discovery of human remains, this impact would be less than significant.

Mitigation: None required.

5.5.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the construction, operation, and maintenance-related impacts that would result under the Proposed Project, as discussed in Section 5.5.4, would not occur. No ground disturbing activity would occur along the Proposed Project alignment, and cultural and paleontological resources within the area would not be disturbed or potentially disturbed. No Project Alternative 1 would not directly or indirectly destroy any cultural or paleontological resources, or disturb any human remains. There would be no impact under No Project Alternative 1 (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and all of the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. Although removal of previously installed infrastructure would generally involve disturbance of already-disturbed soil, some limited ground disturbance may be required. While this shallow disturbance would likely result in no impacts to paleontological resources (No Impact), it could disturb archaeological resources at or near the surface, including historical resource P-56-001797, or human remains. However, implementation of Mitigation Measures 5.5-1a through 5.5-1d, in conjunction with APM CUL-1, would mitigate this potentially significant impact to cultural resources to a less-than-significant level (Class II). Impacts to human remains would be less than significant with implementation of APM CUL-2 (Class III).

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5.6 Energy Conservation

This section identifies and evaluates issues related to energy conservation in the context of the Proposed Project and alternatives. This section discusses the physical and regulatory setting; the criteria used for determining the significance of environmental impacts; and potential impacts associated with construction, operation, and maintenance of the Proposed Project.

5.6.1 Setting

Regional and Local Setting

California's energy system includes electricity, natural gas, and petroleum. According to the California Energy Commission (CEC), California's energy system generates 71 percent of the electricity, 12 percent of the natural gas, and 38 percent of the petroleum consumed or used in the state. The rest of the state's energy is imported, and includes electricity from the Pacific Northwest and the Southwest; natural gas purchases from Canada, the Rocky Mountain states, and the southwest; and petroleum imported from Alaska and foreign sources (CEC, 2011).

Electricity

The production of electricity requires the consumption or conversion of energy resources including natural gas, coal, water, nuclear, and renewable sources such as wind, solar, and geothermal. Of the electricity generated in California, 61.1 percent is generated by natural gas-fired power plants, 0.8 percent is generated by coal-fired power plants, 11.7 percent comes from large hydroelectric dams, and 9.3 percent comes from nuclear power plants. The remaining 17.1 percent in-state total electricity production is supplied by renewable sources including solar and wind power (CEC, 2013). Electricity is generated and distributed via a network of high voltage transmission lines commonly referred to as the power grid.

Southern California Edison (SCE) is the local public utility and energy supplier in the Proposed Project area, and produces and purchases electricity from both renewable and nonrenewable resources. SCE serves approximately 14 million people in a 50,000 square-mile area of central, coastal, and Southern California (including Fresno, Imperial, Inyo, Kern, Kings, Los Angeles, Madera, Mono, Orange, Riverside, Santa Barbara, San Bernardino, Tulare, Tuolumne, and Ventura counties) (SCE, 2013 and 2014).

The Moorpark System is the electrical distribution system in the Proposed Project area and is comprised of the 220/66/16 kilovolt (kV) Moorpark Substation; approximately eleven 66/16 kV distribution substations; various 66 kV customer-dedicated substations and poletop substations; various 66 kV subtransmission lines; and 16 kV, 4 kV and 2.4 kV distribution circuits (SCE, 2013).

Customers in the communities of western Simi Valley, Moorpark, Thousand Oaks, Newbury Park, Westlake Village, Agoura, Agoura Hills, Oak Park, Hidden Hills, Topanga Canyon, Calabasas, Malibu, and portions of eastern unincorporated Ventura County as well as portions of

western unincorporated Los Angeles County comprise the Electrical Needs Area (ENA), which is currently served by two substations within the Moorpark System: the Newbury Substation and Pharmacy Substation. Customers in the ENA would be served by the Proposed Project.

Regulatory Setting

Federal

Energy Policy Act of 2005

The Energy Policy Act of 2005 (the Act) seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the Act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products, including buying hybrid vehicles, building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

State

State of California Integrated Energy Policy

In 2002, the Legislature passed Senate Bill 1389, which required the CEC to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for Zero Emission Vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

The CEC adopted the 2013 Integrated Energy Policy Report on February 20, 2014. The 2013 Integrated Energy Policy Report provides the results of the CEC's assessment of a variety of issues, including:

- ensuring that the state has sufficient, reliable, and safe energy infrastructure to meet current and future energy demands;
- monitoring publicly-owned utilities' progress toward achieving 10-year energy efficiency targets; defining and including zero-net-energy goals in state building standards;
- overcoming challenges to increased use of geothermal heat pump/ground loop technologies and procurement of biomethane;
- using demand response to meet California's energy needs and integrate renewable technologies;

- removing barriers to bioenergy development; planning for California's electricity infrastructure needs given potential retirement of power plants and the closure of the San Onofre Nuclear Generating Station;
- estimating new generation costs for utility-scale renewable and fossil-fueled generation;
- planning for new or upgraded transmission infrastructure;
- monitoring utilities' progress in implementing past recommendations related to nuclear power plants;
- tracking natural gas market trends;
- implementing the Alternative and Renewable Fuel and Vehicle Technology Program; and
- addressing the vulnerability of California's energy supply and demand infrastructure to the effects of climate change; and planning for potential electricity system needs in 2030 (CEC, 2014a).

Title 24 Building Energy Efficiency Standards

Title 24, Part 6, of the California Code of Regulations (CCR) is the California Building Code governing all aspects of building construction. Included in Part 6 of the Code are standards mandating energy efficiency measures in new construction. Since its establishment in 1977, the building efficiency standards (along with standards for energy efficiency in appliances) have contributed to a reduction in electricity and natural gas usage and costs in California. The standards are updated every 3 years to incorporate new energy efficiency technologies. The latest update to the Title 24 standards became effective July 2014. The standards regulate energy consumed in buildings for heating, cooling, ventilation, water heating, and lighting. Title 24 is implemented through the local planning and permits processes (CEC, 2014b).

Local

Ventura County General Plan

The California Public Utilities Commission (CPUC) General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project. However, for information purposes, the following goals and policies identified in Section 1.9 Energy Resources (Ventura County, 2013) would otherwise be applicable to the Proposed Project and alternatives:

> *Goal 4:* Encourage increased fuel efficiency of vehicles and decreased number and length of vehicle trips.
>
> *Policy 1: Discretionary development* shall be evaluated for impact to energy resources and utilization of energy conservation techniques.

5.6.2 Significance Criteria

Appendix F of the California Environmental Quality Act (CEQA) Guidelines provides guidance for assessing energy conservation-related impacts of projects. The appendix identifies the following means to achieving the goal of energy conservation:

- decreasing overall per capita energy consumption;
- decreasing reliance on natural gas and oil; and
- increasing reliance on renewable energy sources.

Based on Appendix F, energy conservation-related environmental impacts would be considered significant if a project would:

a) Result in substantially inefficient or wasteful consumption of energy;

b) Affect local and regional energy supplies to the point that additional capacity of those energy supplies would be required;

c) Adversely affect peak and base period demands for electricity and other forms of energy;

d) Conflict with existing energy standards;

e) Adversely affect existing energy resources; or

f) Result in substantial transportation energy use requirements with no efficient transportation alternatives.

5.6.3 Applicant Proposed Measures

SCE does not identify any applicant proposed measures to address issues related to energy conservation impacts.

5.6.4 Impacts and Mitigation Measures

Approach to Analysis

The energy conservation analysis qualitatively assesses potential impacts of the Proposed Project related to construction-related diesel and gasoline consumption from both construction equipment and transportation and from operation-related diesel and gasoline consumption.

a) Result in substantially inefficient or wasteful consumption of energy.

Impact 5.6-1: Construction, operation, and maintenance would result in the consumption of energy. *Less than significant* (Class III)

Construction-related energy expenditures would include both direct and indirect uses of energy, primarily in the form of diesel and gasoline fuel. Direct energy use would include the consumption of petroleum for operation of construction vehicles and equipment. Indirect energy use includes the energy required to make the materials and components used in the Proposed Project construction. This includes energy used for extraction of raw materials, manufacturing, and transportation associated with manufacturing.

Construction-related energy consumption would represent irreversible consumption of finite natural energy resources during the 10 months of construction activity. The precise amount of

construction-related energy demand is uncertain. Even so, construction activities would not result in long-term depletion of non-renewable energy resources and would not permanently increase reliance on energy resources that are not renewable. Construction activities would not reduce or interrupt existing electrical or natural gas services due to insufficient supply, nor would they interrupt existing local SCE service. Proposed Project-specific construction-related energy demands would not be expected to have a significant adverse effect on energy resources. Implementation of APM AIR-1, which is described and analyzed in Section 5.3, *Air Quality*, would further ensure that fuel energy consumed in the construction phase would not be wasted through unnecessary idling or through the operation of poorly maintained equipment. Therefore, energy consumption by construction activities would result in less-than-significant impacts pertaining to inefficient or wasteful consumption of energy (Class III).

Energy consumption required for Proposed Project operation and maintenance would be minimal. Energy would be required in the form of electricity from the SCE grid for occasional maintenance activities, and in the form of fuel for periodic visits by inspection and maintenance vehicles. The amount and form of energy required for operation and maintenance activities would be neither inefficient nor wasteful. Impacts from operation and maintenance of the Proposed Project on the consumption of energy would be less than significant.

Mitigation: None required.

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b) Affect local and regional energy supplies to the point that additional capacity of those energy supplies would be required. (Beneficial Impact)

The Proposed Project would be located within SCE's service territory and would transmit energy to the regional power grid. The Proposed Project would contribute to meeting projected local peak demand electricity needs. Consequently, the Proposed Project would have a beneficial impact on local and regional energy supplies because it would ensure that current energy needs are met and that there is capacity and infrastructure to meet projected future energy needs in the ENA. No adverse impact on local or regional energy supplies or capacity would result (Class IV).

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c) Adversely affect peak and base period demands for electricity and other forms of energy. (No Impact)

The Proposed Project would transmit electrical energy to the grid during peak and base periods. Impacts to peak or base electricity demands would occur if significant amounts of electricity were required for construction, operation, or maintenance of the Proposed Project such that SCE would be required to increase its available supply or production capacity. There may be a limited temporary increase in use of electricity resources during construction, and periodic energy requirements during operation and maintenance, as discussed under Impact 5.6-1. However, given the negligible amount of electricity required for the Proposed Project, neither construction nor

operation and maintenance would impact peak or base power demands. Additionally, the Proposed Project would not impact electricity generation facilities' ability to provide and maintain existing levels of service during peak and base period demands. Consequently, the Proposed Project would cause no adverse impact related to the demand for electricity or other forms of energy (No Impact).

---

d) Conflict with existing energy standards. (No Impact)

Energy standards such as the Energy Policy Acts of 1975 and 2005, and Title 24 promote strategic planning and building standards that reduce consumption of fossil fuels, increase use of renewable resources, and enhance energy efficiency. In general, these regulations and policies specify strategies to reduce fuel consumption and increase fuel efficiencies and energy conservation. If the Proposed Project were to use energy resources in a wasteful manner, it would conflict with state energy standards. However, implementation of APM AIR-1, which is described and analyzed in Section 5.3, *Air Quality*, would ensure that fuel energy consumed in the construction phase would not be wasted through unnecessary idling or through the operation of poorly maintained equipment.

Proposed Project construction would be short-term and would not result in the permanent increased use of non-renewable energy resources. As described in Chapter 3, *Project Description*, the Proposed Project would reduce fuel use by locating staging areas near the Proposed Project area, using a local labor force, and using local landfills for disposal of construction and demolition debris. Proposed Project construction would be consistent with the goals and strategies of state energy standards (No Impact).

Proposed Project operation would include on-going maintenance activities that would require the use of trucks and equipment that use non-renewable fuels. Energy use for Proposed Project operation and maintenance would be minimal, requiring a negligible percentage of the overall energy supplied to Ventura County. Proposed Project operation and maintenance energy use would be neither wasteful nor inefficient, and would not conflict with current energy conservation standards (No Impact).

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e) Adversely affect existing energy resources. (Beneficial Impact)

As discussed above, the Proposed Project would increase the reliability of the local electrical subtransmission grid during peak demand times, reducing the likelihood of interruptions in electrical distribution due to demand on the system. Consequently, the Proposed Project would not result in adverse impacts on energy resources (Class IV).

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f) Result in substantial transportation energy use requirements with no efficient transportation alternatives.

Impact 5.6-2: Construction, operation, and maintenance would result in the use of transportation energy. *Less than significant* (Class III)

As discussed in Impact 5.6-1 above, Proposed Project construction would consume energy (primarily through fuel usage) during transportation of labor and materials to and from the Proposed Project site. During Proposed Project operation and maintenance, transportation-related energy use would consist of up to 15 maintenance trips per month and an annual inspection using a helicopter. Operation and maintenance activities would originate from the local area because current local SCE personnel would perform this work. The amount of fuel required for construction, operation, and maintenance activities would not be substantial, requiring a negligible percentage of the overall energy supplied to Ventura County. For the reasons discussed above, construction-related transportation energy use impacts would be less than significant.

Mitigation: None required.

5.6.5 Alternatives

No Project Alternative 1

No Project Alternative 1 would have no energy impacts because no energy would be consumed by construction activities, or during operations and maintenance (No Impact). However, if the Proposed Project is not built, SCE forecast indicates a projected voltage drop that would exceed the acceptable five percent limit on the 66 kV bus at Newbury Substation under abnormal system conditions and a projected overload on the Moorpark-Newbury tap of the Moorpark-Newbury-Pharmacy 66 kV line under a normal system configuration. Although No Project Alternative 1 would consume no energy during construction, operation, and maintenance, it could result in a long-term loss of reliability in the local electrical distribution system. This impact is considered less than significant, as another project would likely be constructed to address this deficiency. Therefore, this alternative would result in no impact to energy conservation regarding criteria a), c), d), e) and f) (No Impact), and a less-than-significant impact regarding criterion b) (Class III).

No Project Alternative 2

No Project Alternative 2 would have similar impacts compared to the Proposed Project because energy would be consumed by construction equipment and vehicles associated with removing project components installed in 2010 and 2011. No Project Alternative 2 would require the removal of 22 TSPs, 30 TSP foundations, slurry from three foundation holes, and possibly infrastructure previously installed at Moorpark and Newbury substations. Similar to construction of the Proposed Project, removal activities would require the use of fuels (primarily gasoline and diesel) for operation of construction equipment (e.g., dozers, excavators, and trenchers),

construction vehicles (e.g., dump and delivery trucks), and construction worker vehicles. Direct energy use may also include the use of electricity to power construction equipment (e.g., electric power tools). Compared to the Proposed Project, this alternative would not require energy during operation and maintenance. As would occur under No Project Alternative 1, No Project Alternative 2 would result in a projected voltage drop and a projected overload on the Moorpark-Newbury tap of the Moorpark-Newbury-Pharmacy 66 kV line under a normal system configuration. This could result in a long-term loss of reliability in the local electrical distribution system, although this impact is considered less than significant, as another project would likely be constructed to address this deficiency.

Construction-related energy requirements would be less under this alternative than the Proposed Project, but would still result in a less-than-significant impact to energy conservation regarding criteria a) and d) (Class III) and no impact regarding criteria b), c), d), and f).

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5.7 Geology and Soils

This section evaluates whether construction, operation, and maintenance of the Proposed Project and alternatives would result in potential adverse impacts related to local geology, existing soil conditions, or seismicity. The evaluation and analysis of geology, soils, faulting, and seismicity are based, in part, on review of various geologic maps and reports. The primary sources include available resources from the United States Geological Survey (USGS) and the California Geological Survey (CGS). Both short-term and long-term effects are analyzed to determine their significance under the California Environmental Quality Act (CEQA). When impacts are determined to be significant or potentially significant, mitigation measures to avoid or reduce those impacts are identified. Also described here are the existing conditions and regulations relevant to the Proposed Project and alternatives.

5.7.1 Setting

This section describes the existing geologic conditions and soil resources along the Proposed Project alignment. Information in this section was collected from reports prepared by the USGS, CGS, the U.S. Natural Resources Conservation Service (NRCS), and a geotechnical report prepared for the area by Converse Consultants (Converse, 2011).

Regional Geology

The Proposed Project would be approximately 9 miles long, and traverse portions of the City of Moorpark, unincorporated areas of Ventura County, and the City of Thousand Oaks. The Proposed Project would be within the foothills of the Transverse Ranges geomorphic province (CGS, 2002a). The Transverse Ranges are tectonically active, with relatively high rates of uplift resulting in steep terrain. The Transverse Ranges are characterized by west-east trending mountain ranges and ridges (e.g., Las Posas Hills, Calleguas Hills) separated by intervening valleys (e.g., Little Simi Valley and Santa Rosa Valley). Numerous smaller, steep-sided canyons are aligned perpendicular to the major ridges. Elevations across the Proposed Project subtransmission line alignment range from approximately 420 feet above mean sea level (amsl) at Arroyo Las Posas, to approximately 1,150 feet amsl in the Calleguas Hills. Erosion of the steep slopes has created incised canyons and deep sedimentary valleys in the region.

The Proposed Project alignment traverses from north to south across the alluvial plain[1] of Little Simi Valley, over the Las Posas Hills, across the Santa Rosa Valley, and through the rugged Calleguas Hills (Converse, 2011). Little Simi Valley and Santa Rosa Valley are partially filled with alluvial sediments derived from adjacent hills. These sediments consist of Holocene (less than 11,000 years before present [B.P.]) and Late Pleistocene (1.8 million to 11,000 years B.P.) alluvium in Little Simi Valley, and Holocene alluvium in the Santa Rosa Valley. The sediments

[1] A broad, flat plain of unconsolidated earth materials (clay, silt, sand, gravel) deposited by a stream or body of running water.

in the Little Simi Valley generally consist of sand, with layers of silty sand, clayey sand, and clay and silt layers, and are generally loose to medium dense.

The Las Posas Hills are predominantly composed of folded and faulted deposits of the Pleistocene (2.8 million to 11,000 years B.P.) Saugus Formation (Converse, 2011). The Saugus Formation is composed of loosely consolidated, non-marine sandstone, conglomerate, and siltstone. The Proposed Project alignment crosses a small section of the Pleistocene Las Posas Sand, made up of primarily sandstones and gravelly sandstones. The upper Eocene to lower Miocene (37.2 to 16.0 million years B.P.) Sespe Formation is exposed along the crest of the Las Posas Hills adjacent to the Santa Rosa Fault.

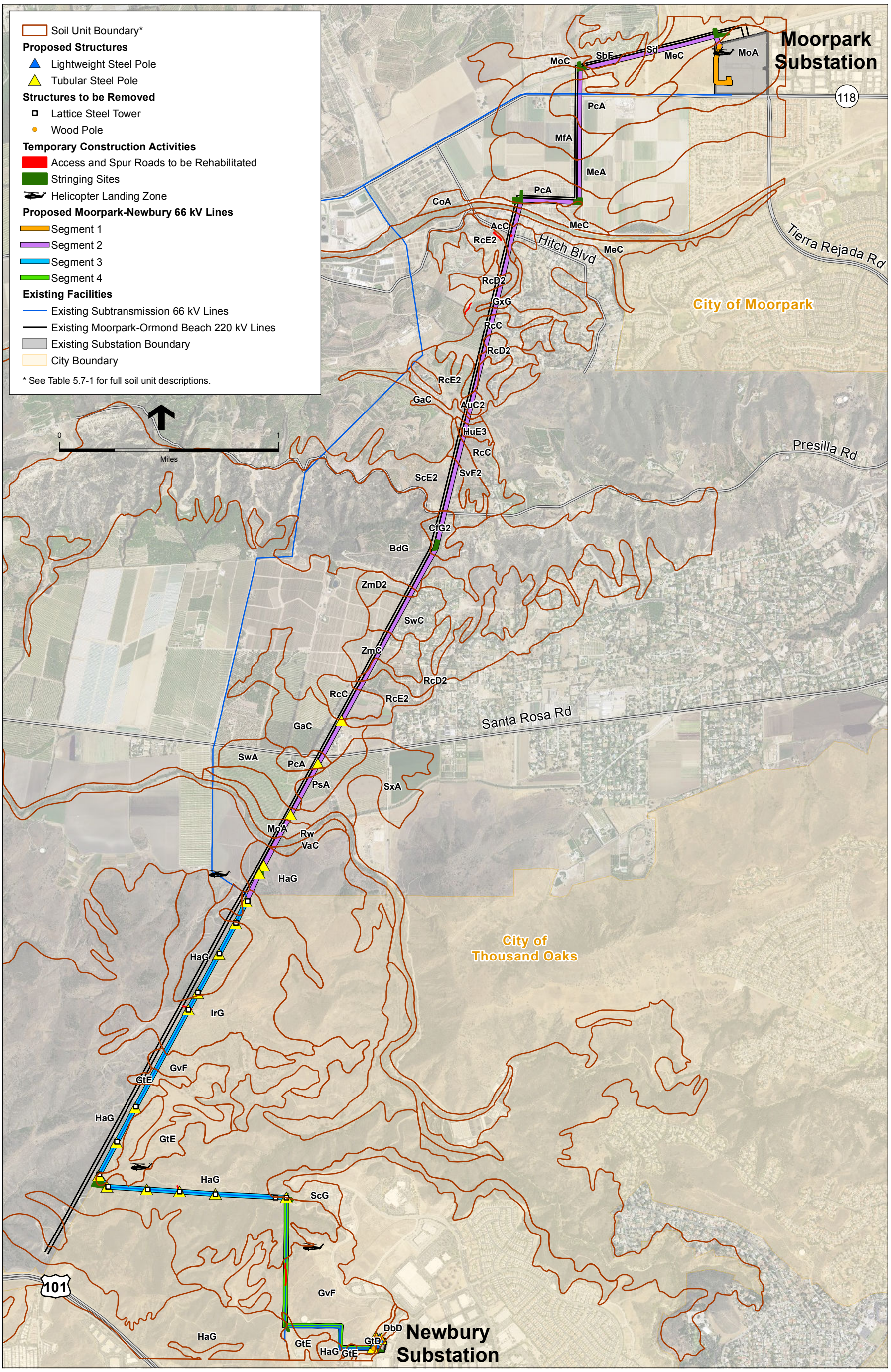
The bedrock of the Calleguas Hills consists of the middle Miocene (16.0 to 11.6 million years B.P.) Conejo Volcanics. Within the Proposed Project alignment, the Conejo Volcanics are composed of andesite and basalt flows and flow breccias (Converse, 2011). Quaternary alluvium and undifferentiated deposits are present along the lower flanks of the Calleguas Hills and in Conejo Valley near the southern end of the Proposed Project alignment.

Soils

A layer of soil overlies the geologic units described above. In general, soil characteristics are strongly governed by slope, relief, climate, vegetation, and the rock type upon which they form. Soil types are important in describing engineering constraints such as erosion and runoff potential, corrosion risks, and various behaviors that affect structures, such as expansion and settlement.

This analysis relies on soils data from both the NRCS and from the borings collected for the geotechnical report prepared for the project. NRCS soils data for the Proposed Project area were reviewed using Web Soil Survey (NRCS, 2014a). These data include information about soil suitability for various land uses, soil chemical and physical properties, and descriptions of soil types. A generalized soils map for the area is included in **Figure 5.7-1**, *Proposed Project Area Soils*. Soil map units within the Proposed Project area and soil properties relevant to the impact analysis of the Proposed Project and alternatives are summarized in **Table 5.7-1**, *Proposed Project Area Soils and Soil Properties*. Soil engineering properties were also evaluated at specific boring locations identified in the geotechnical data report prepared for previous construction along the project alignment, shown in **Figure 5.7-2**, *Well Boring Locations*.

The soil map units that could be disturbed by tubular steel pole (TSP) construction or rehabilitation of access road and stringing sites are highlighted in the table below. These sites are noted because they are the locations of ground disturbance associated with the Proposed Project. The soil properties in these locations are most relevant to the impact analysis in Section 5.7.4, *Impacts and Mitigation Measures,* below.

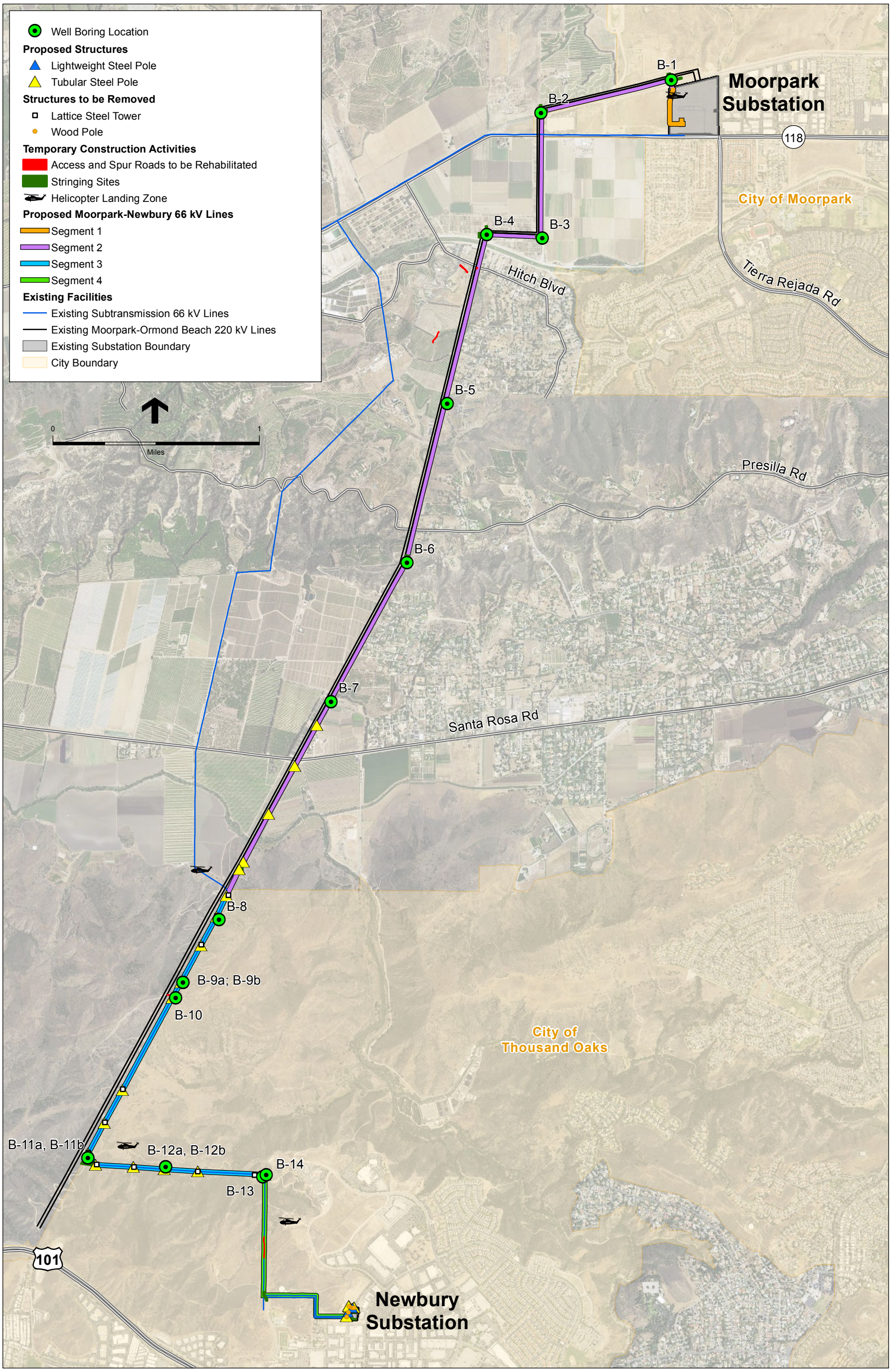


SOURCE: NRCS, 2014a

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.7-1

Proposed Project Area Soils



SOURCE: Converse, 2011

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.7-2

Well Boring Locations

TABLE 5.7-1
PROPOSED PROJECT AREA SOILS AND SOIL PROPERTIES

Soil Map Unit ID	Soil Map Unit Name	Shrink-Swell Potential[a]	Erosion Hazard[b]	Wind Erodibility Group[c]	Corrosion[d]	
					Uncoated Steel	Concrete
AcC	Anacapa sandy loam, 2 to 9 percent slopes	Low	Moderate	3	High	Low
AuC2	Azule loam, 2 to 9 percent slopes, eroded	Moderate	Moderate	6	High	Low
BdG	Badland		not rated	NA	NA	NA
CfG2	Castaic-Balcom complex, 50 to 65 percent slopes, eroded	Moderate	Severe	4	Moderate	Low
CoA	Corralitos loamy sand, 0 to 2 percent slopes	Low	Slight	2	High	Moderate
DbD	Diablo clay, 9 to 15 percent slopes	High	Severe	4	High	Moderate
GaC	Garretson loam, 2 to 9 percent slopes	Low	Moderate	6	Low	Low
GtD	Gilroy clay loam, 2 to 9 percent slopes	Moderate	Severe	6	Moderate	Low
GtE	Gilroy clay loam, 15 to 30 percent slopes	Moderate	Severe	6	Moderate	Low
GvF	Gilroy very rocky clay loam, 15 to 50 percent slopes	Moderate	Severe	6	Moderate	Low
GxG	Gullied land		not rated	NA	NA	NA
HaG	Hambright very rocky loam, 15 to 75 percent slopes	Low	Severe	7	Moderate	Low
HuE3	Huerhuero very fine sandy loam, 9 to 30 percent slopes, severely eroded	Moderate	Severe	3	High	Low
IrG	Igneous rock land		not rated	NA	NA	NA
MeA	Metz loamy sand, 0 to 2 percent slopes	Low	Slight	2	High	Low
MeC	Milpitas-Positas fine sandy loams, 2 to 9 percent slopes	Low	Moderate	2	High	Low
MfA	Metz loamy sand, loamy substratum, 0 to 2 percent slopes	Low	Slight	2	High	Low
MoA	Mocho loam, 0 to 2 percent slopes	Moderate	Slight	6	Moderate	Low
MoC	Mocho loam, 2 to 9 percent slopes	Moderate	Moderate	6	Moderate	Low
PcA	Pico sandy loam, 0 to 2 percent slopes	Low	Slight	3	High	Low
PsA	Pico loam, sandy substratum, 0 to 2 percent slopes	Low	Slight	5	High	Low
RcC	Rincon silty clay loam, 2 to 9 percent slopes	Moderate	Moderate	7	NA	NA
RcD2	Rincon silty clay loam, 9 to 15 percent slopes, eroded	High	Moderate	6	High	Low
RcE2	Rincon silty clay loam, 15 to 30 percent slopes, eroded	High	Severe	6	High	Low
Rw	Riverwash	Low	not rated	1	NA	NA
SbF	San Andres sandy loam, 30to 50 percent slopes	Low	Severe	3	Low	High

TABLE 5.7-1 (Continued)
PROPOSED PROJECT AREA SOILS AND SOIL PROPERTIES

Soil Map Unit ID	Soil Map Unit Name	Shrink-Swell Potential[a]	Erosion Hazard[b]	Wind Erodibility Group[c]	Corrosion[d]	
					Uncoated Steel	Concrete
ScE2	San Benito clay loam, 15 to 30 percent slopes, eroded	Moderate	Severe	6	Moderate	Low
ScG	San Benito clay loam, 50 to 75 percent slopes	Moderate	Severe	6	Moderate	Low
Sd	Sandy alluvial land	Low	not rated	2		
SvF2	Soper gravelly loam, 30 to 50 percent slopes, eroded	Moderate	Severe	7	Moderate	Low
SwA	Sorrento loam, 0 to 2 percent slopes	Moderate	Slight	6	Moderate	Low
SwC	Sorrento loam, 2 to 9 percent slopes	Moderate	Moderate	6	Moderate	Low
SxA	Sorrento silty clay loam, 0 to 2 percent slopes	Moderate	Slight	6	Moderate	Low
VaC	Vina loam, 2 to 9 percent slopes	Low	Moderate	6	Moderate	Low
ZmC	Zamora loam, 2 to 9 percent slopes	Moderate	Moderate	6	Moderate	Low
ZmD2	Zamora loam, 9 to 15 percent slopes	Moderate	Severe	6	Moderate	Low

a. The shrink-swell potential is low if the soil has a linear extensibility of less than three percent; moderate if three to six percent; high if six to nine percent; and very high if more than nine percent.
b. Erosion hazard is rated based on the soil erodibility factor (K), which represents the combination of the susceptibility of soil or surface material to erosion, the transportability of the sediment, and the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. The California Water Resources Control Board identifies erosion hazard as low for K values ranging from 0.05 to 0.2, moderate for K values ranging from 0.25 to 0.45, and high for K values ranging from 0.45 to 0.69.
c. Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. Wind erodibility groups 1 and 2 correlate to the highest rate of soil loss due to wind; groups 3 through 7 correlate to moderate rate of soil loss to wind; and group 1 correlates to low soil loss to wind.
d. The risk of corrosion to concrete or steel is rated as high, moderate, or low by the NRCS based on the combination of soil moisture, soil texture, acidity, and other chemical characteristics of the soil (sulfate and sodium content for concrete corrosion; electrical conductivity for steel corrosion).

SOURCE: NRCS, 2014a.

Faults

The Proposed Project is located in a tectonically active area. Motion along active and potentially active faults in the region could cause ground shaking in the Proposed Project area. The State of California considers a fault to be "active" if evidence exists of surface displacement within the past 11,000 years (Holocene epoch) and considers a fault to be "potentially active" if evidence exists of surface displacement within the past 1.6 million years (Quaternary period). Active and potentially active faults within 20 miles of the Proposed Project area are summarized in **Table 5.7-2**, *Faults in the Proposed Project Vicinity*. The distances shown in the table are measured from the closest point on the fault to the closest Proposed Project component. **Figure 5.7-3**, *Seismic Hazards*, illustrates fault locations within the immediate vicinity of the Proposed Project area. The Simi-Santa Rosa fault, which crosses Proposed Project Segment 2 (see Figure 5.7-3), has been classified by the state as an active fault that has potential for surface fault rupture along its traces. The Oak Ridge, San Cayetano, and Malibu Coast faults are also classified as active. The potential earthquake magnitude identified for each fault below is a modeled estimate of the maximum amount of energy that could be released by each fault based on seismic and geologic information, such as fault slip rates and the rigidity of surrounding geologic units.

TABLE 5.7-2
FAULTS IN THE PROPOSED PROJECT VICINITY

Fault Name	Miles from Nearest Proposed Project Component	Age of Faulting (years before present)	Potential Earthquake Magnitude
Simi-Santa Rosa	0	< 15,000 (Active)	7.0
Sycamore Canyon	1.3	< 1.6 million (Potentially Active)	NA
Oak Ridge	2.5	< 15,000 (Active)	7.0
San Cayetano	7.9	< 15,000 (Active)	7.0
Santa Susana	9.1	< 130,000 (Potentially Active)	6.7
Malibu Coast	10	< 15,000 (Active)	6.7
Holser	14	< 130,000 (Potentially Active)	6.5
Santa Monica	15	< 15,000 (Potentially Active)	6.6
Anacapa-Dume	16	< 130,000 (Potentially Active)	7.5
Chatsworth	16	< 130,000 (Potentially Active)	NA
Northridge Hills	18	< 130,000 (Potentially Active)	7.0
Santa Ana	18	< 130,000 (Potentially Active)	7.2

NOTE: NA = information not available.

SOURCES: Cao et al., 2003; USGS and CGS, 2006.

Geologic Hazards

A geologic hazard is a geologic condition, either natural or man-made, that poses a potential danger to life and property. The following sections discuss possible geologic hazards in the study area. Geologic conditions that present potential hazards to people and structures are identified on a county-wide basis in the Ventura County General Plan Hazards Appendix (Ventura County, 2011), and on a local level in the Safety elements of the City of Moorpark General Plan and the City of Thousand Oaks General Plan (City of Moorpark, 2001; City of Thousand Oaks, 2014). Seismic Hazard Zones (areas of seismically induced liquefaction or landslides) have been mapped in the Proposed Project Area by the California Geological Survey (CGS, 2001 and 2002b), and are shown in Figure 5.7-3, *Seismic Hazards*.

Surface Rupture and Groundshaking

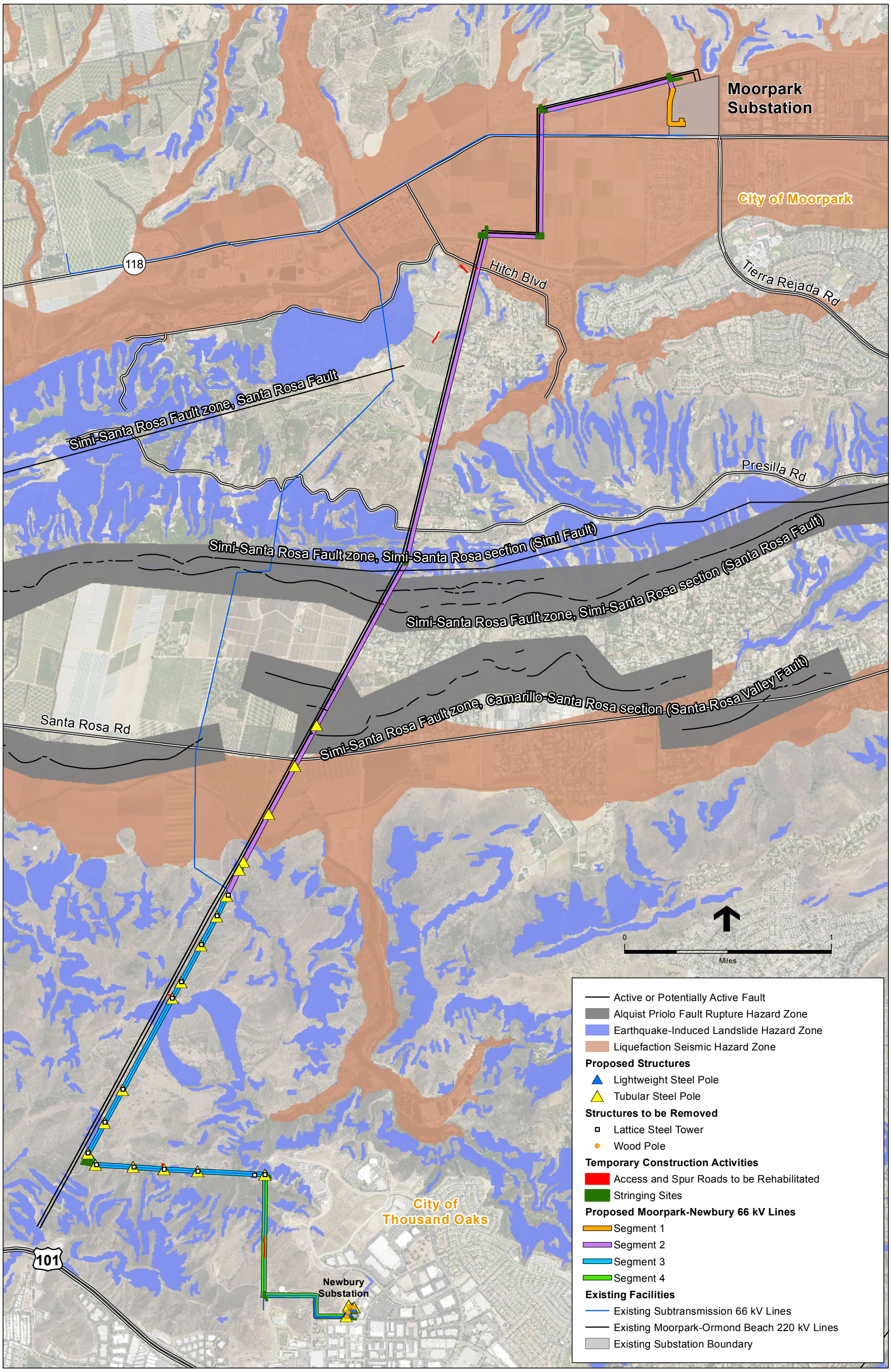
Surface rupture occurs when movement along a fault breaks through the ground surface, and generally occurs along preexisting faults with relatively recent activity (i.e., within the last 11,000 years). The California Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act; described in greater detail below) prohibits the development of structures for human occupancy[2] across active fault traces.[3] Under the Alquist-Priolo Act, the CGS, formerly the California Division of Mines and Geology, must establish zones on either side of the active fault that delimit areas susceptible to surface fault rupture (called A-P Zones). These zones are referred to as fault rupture hazard zones and are shown on official maps published by the CGS. These zones vary in width, but average about one-quarter mile wide.

While it is possible that surface rupture could occur outside of these zones, the risk of occurrence is not substantial. The Proposed Project alignment crosses the Simi-Santa Rosa A-P Zone in two areas: along the northern margin of the Santa Rosa Valley, and near the crest of the Las Posas Hills (CGS, 2002b). The Proposed Project alignment also crosses an older segment of the Simi-Santa Rosa Fault Zone (Simi Fault) near the crest of the Las Posas Hills (USGS, 2010).

Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. The magnitude and nature of fault rupture can vary for different faults, or even along different strands of the same fault. Surface rupture-generated shaking is typically the greatest cause of earthquake damage. The local geologic conditions, principally the softness of the ground and the total thickness of sediments below a particular site,

2 A structure for human occupancy is one that is intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person hours per year (Bryant and Hart, 2007).

3 The Alquist-Priolo Act designates zones that are most likely to experience fault rupture, although surface fault rupture is not necessarily restricted to those specifically zoned areas. The zones are defined by the CGS. For the purpose of delineating fault rupture zones, the CGS historically sought to also zone faults defined as potentially active, which are faults that have shown evidence of surface displacement during the Quaternary period (the last 1.6 million years). In late 1975, the State Geologist made a policy decision to zone only those faults that had a relatively high potential for ground rupture, determining that a fault should be considered for zoning as active only if it was sufficiently active and "well defined." Sufficiently active is also used to describe a fault if there is some evidence that Holocene displacement occurred on one or more of its segments or branches. Faults that are confined to pre-Quaternary rocks (more than 1.6 million years old) are considered inactive and incapable of generating an earthquake.



SOURCE: SCE, 2013; CGS, 2001; CGS 2002b; USGS and CGS, 2006

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.7-3
Seismic Hazards

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generally control the intensity of ground shaking during an earthquake (Ventura County, 2013a). Shaking tends to be stronger at sites with softer surface materials. Probabilistic approaches to assessing seismic hazards use the statistics of earthquake occurrence in a region to estimate the level of ground motion for which the exceedance probability is acceptably low. The primary tool that seismologists use to estimate ground-shaking hazard and characterize statewide earthquake risks is a probabilistic seismic hazard assessment (PSHA). The PSHA for the State of California takes into consideration the range of possible earthquake sources and estimates their characteristic magnitudes to generate a probability map for ground-shaking. The PSHA maps depict values of peak ground acceleration (PGA) that have a 10 percent probability of being exceeded in 50 years (or a 1 in 475 chance). This probability level allows engineers to design structures for ground motions that have a 90 percent chance of not occurring in the next 50 years, making structures safer than if they were simply designed for the most likely events. The peak ground acceleration value used to estimate the expected groundshaking for the Proposed Project was calculated for a location near the center of the Proposed Project and in proximity to the Simi-Santa Rosa A-P Zone. The PGA expected is 0.504 g (CGS, 2008a), which corresponds to shaking that would cause considerable damage to ordinary buildings and overturn heavy furniture (Wald et al., 1999; USGS, 2000). Specially designed structures, however, would sustain only slight damage under these conditions.

Liquefaction and Lateral Spreading

Soil liquefaction is caused by pressure waves moving through the ground due to earthquakes. Research and historical data indicate that loose granular soils (such as nonindurated sand) and non-plastic silts that are saturated by relatively shallow groundwater (generally less than 50 feet) are susceptible to liquefaction. Liquefaction causes soil to lose strength and act like a liquid, triggering structural distress or failure due to the dynamic settlement of the ground or a loss of strength in the soils underneath structures. Liquefaction in a subsurface layer can in turn cause lateral spreading of the ground surface, which usually takes place along weak shear zones that have formed within the liquefiable soil layer. Lateral spreading has generally been observed to take place in the direction of a free face (e.g., a retaining wall or slope).

As shown in Figure 5.7-3, *Seismic Hazards*, portions of the Proposed Project traverse areas mapped by the State of California as Liquefaction Seismic Hazard Zones (CGS, 2001 and 2002b). The Ventura County General Plan identifies the Santa Rosa Valley and portions of Newbury Park as areas where injury or loss of life could occur as a result of liquefaction (Ventura County, 2013a). The geotechnical report prepared for past work associated with the project identified sandy fill and sand, mixed with varying amounts of silt and clay, in the borings collected at Little Simi Valley close to the Moorpark Substation. Laboratory testing of the bore samples indicated that the sediments are primarily sand with varying amounts of silt. Groundwater was encountered at depths of 22 to 29 feet below ground surface in Little Simi Valley (Converse, 2011).

Subsidence

Land subsidence is the gradual settling or sudden sinking of the earth's surface due to subsurface movement of earth materials (USGS, 1999). Compaction of subsurface water-containing geologic

layers is the primary cause of land subsidence (USGS, 1999). Regional ground subsidence is typically caused by compaction of sub-surface water as a result of petroleum or groundwater withdrawal. The soil compacts because the water or petroleum formerly in the pore spaces of sediments or rock is partially responsible for holding the ground up. Loss of this support when the liquid is withdrawn results in consolidation or settlement of the underlying soils. Local subsidence or settlement may also occur when areas containing compressible soils are subjected to foundation or fill loads. Subsidence has historically occurred in the Oxnard Plain and along the Santa Clara River in southern Ventura County (Ventura County, 2013a). The Proposed Project sites are not located within a subsidence hazard area mapped by Ventura County (Ventura County, 2013a).

Collapsible Soils

Collapsible soils are soils that compact and collapse after they get wet. This can occur when the soil particles are loosely packed. Once water has filled the pores of the loosely packed soil the soil particles become buoyant and then sink, causing a reduction in the overall soil volume. The amount of collapse (or reduction in volume) depends upon how loosely the soil particles were packed and the thickness of the soil. Collapsible soils tend to form in drier climates at valley margins where alluvium is deposited by streams due to the change in topography or where wind-blown sediments are deposited (these sediments are called loess). Collapsible soils are not identified as hazards in the Ventura County General Plan, the Thousand Oaks General Plan, or the Moorpark General Plan. Generally, collapsible soils are found in regions which are more arid than the Proposed Project area.

Expansive Soils

Expansive soils contain significant amounts of clay particles that have the ability to give up water (shrink) or take on water (swell). When these soils swell, the change in volume can exert significant pressures on loads that are placed on them, such as loads resulting from building and structure foundations or underground utilities, and can result in structural distress and/or damage. Often, grading, site preparations, and backfill operations associated with subsurface structures can eliminate the potential for expansion. Linear extensibility and plasticity are used to describe the shrink-swell potential of soils. If linear extensibility is greater than 3 percent (classified as Moderate potential), shrinking and swelling can cause damage to buildings, roads, and other structures (NRCS, 2014b). The plasticity index is defined as the range of water content percentages in a soil within which the soil is deformable without flowing (like a liquid) or breaking. If a relatively large amount of water can be added to the soil before it begins to flow like a liquid (that is, if the plasticity index is high), the soil is considered expansive (as it expanded in order to accommodate the added water). The Proposed Project alignment crosses soils with varying expansive potential, as shown in Table 5.7-1. A soil sample was collected in the Proposed Project area from the northern side of the Las Posas Hills and tested for plasticity. The plasticity index of this sample, taken from 7 feet below ground surface, was 21, which represents a moderate to high shrink-swell potential (Converse, 2011).

Soil Corrosion

Corrosion is the deterioration of metal, concrete, or other material through a reaction with its environment. The corrosivity of soils is commonly related to several key parameters, including soil resistivity, the presence of chlorides and sulfates, oxygen content, and acidity. Typically, the most corrosive soils are those with the lowest pH and highest concentration of chlorides and sulfates. Wet/dry conditions can result in a concentration of chlorides and sulfates as well as their movement in the soil, both of which tend to break down the protective corrosion films and coatings on the surfaces of building materials. High-sulfate soils are corrosive to concrete and may prevent complete curing, reducing its strength considerably. Low pH and/or low-resistivity soils can corrode buried or partially buried metal structures. Depending on the degree of corrosivity of the subsurface soils, concrete, reinforcing steel, and bare-metal structures exposed to these soils can deteriorate, eventually leading to structural failures.

Soil samples taken from the Proposed Project alignment were evaluated for soil corrosion factors. While not a regulation, and only recommended for use as general guidance, the California Department of Transportation (Caltrans) has prepared corrosion guidelines that define the pH, chloride concentration, and sulfate concentration thresholds that are used by Caltrans to determine if a site is “corrosive” or “not corrosive” (Caltrans, 2012). None of the soils sampled are considered corrosive according to the Caltrans criteria (Converse, 2011).

Slope Failures

Slope failures, commonly referred to as landslides, include many phenomena that involve the downslope displacement and movement of material, triggered either by static (e.g., gravity) or dynamic (e.g., earthquake) forces. Exposed rock slopes can cause rockfalls, rockslides, and/or rock avalanches, while soil slopes can cause soil slumps, rapid debris flows, and deep-seated rotational slides. Slope stability can depend on a number of complex variables, including the local geology, geologic structure, and amount of groundwater at the site, as well as external processes such as climate, topography, slope geometry, and human activity. The factors that contribute to slope movements include those that decrease the resistance in the slope materials and those that increase the stresses on the slope. Landslides can occur on slopes of 15 percent or less, but the probability is greater on steeper slopes that exhibit old landslide features such as scarps, slanted vegetation, and transverse ridges.

Slope failures, including those caused by earthquake-induced groundshaking, are a potential hazard in segments of the Proposed Project along the Las Posas and Calleguas Hills. The CGS has evaluated the hazards of landslides in the Proposed Project area. Portions of the Proposed Project alignment in the Las Posas and Calleguas Hills are within areas classified as having low- to moderate-susceptibility to landslides (CDMG, 1995). Segments of the Proposed Project also cross areas mapped as State of California Earthquake-Induced Landslide Hazard Zones (CGS, 2001 and 2002b). This means that the State of California requires a site-specific investigation to determine the severity of the hazard posed by landslides in the area prior to development there for developments intended for human occupancy.

Landslide hazards in the Moorpark area can be minimized by requiring site-specific engineering geologic investigations prior to development of hillside areas that have been designated as susceptible to landslides or debris flows (CDMG, 1995). A site-specific screening report (called a data report) was prepared for the previous construction along the project alignment and shows that the Proposed Project alignment traverses areas classified as generally susceptible to landslides along the northern flank of the Las Posas Hills (although no new structures are proposed along this portion of the subtransmission line). Disturbed soils attributed to older landslide debris were encountered near the crest of the Calleguas Hills (borings B-9a and B-9b), extending 22 to 23 feet below the ground surface (Converse, 2011). Soils at these locations are potentially unstable, as material deposited by landslides tends to be poorly consolidated and thus structurally weak, and the slopes at these boring sites are relatively steep.

Regulatory Setting

Federal

No federal regulations apply to the Proposed Project because it does not traverse any federal lands or require federal approvals.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with this act, the State Geologist established regulatory zones, called "earthquake fault zones," around the surface traces of active faults and published maps showing these zones. Within these zones, buildings for human occupancy cannot be constructed across the surface trace of active faults. Each earthquake fault zone extends approximately 200 to 500 feet on either side of the mapped fault trace, because many active faults are complex and consist of more than one branch. The potential for ground surface rupture exists along any of the branches.

California Building Code

The California Building Code (CBC), which is codified in Title 24 of the California Code of Regulations, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, egress facilities, and general building stability. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction.

The 2013 CBC is based on the 2009 International Building Code. In addition, the CBC contains necessary California amendments that are based on the American Society of Civil Engineers (ASCE) Minimum Design Standards 7-05. ASCE 7-05 provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (flood, snow, wind, etc.) for inclusion in building codes. The provisions of the CBC apply to the

construction, alteration, movement, replacement, and demolition of every building or structure, or any appurtenances connected or attached to such buildings or structures, throughout California.

The CBC earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients, all of which are used to determine a Seismic Design Category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site, and ranges from SDC A (very small seismic vulnerability) to SDC E/F (very high seismic vulnerability and near a major fault). Design specifications are then determined according to the SDC.

The updated CBC no longer cites the 1997 Uniform Building Code Table 18-1-B for identifying expansive soils although the significance criteria in Appendix G of the CEQA Guidelines still refers to this table. The analysis in this Environmental Impact Report relies on the updated CBC section as provided below.

> ***1803.5.3 Expansive Soil.*** In areas likely to have expansive soil, the building official shall require soil tests to determine where such soils do exist. Soils meeting all four of the following provisions shall be considered expansive, except that tests to show compliance with Items 1, 2 and 3 shall not be required if the test prescribed in Item 4 is conducted:
>
> 1. Plasticity index (PI) of 15 or greater, determined in accordance with ASTM[4] D 4318
> 2. More than 10 percent of the soil particles pass a No. 200 sieve (75 micrometers), determined in accordance with ASTM D 422
> 3. More than 10 percent of the soil particles are less than 5 micrometers in size, determined in accordance with ASTM D 422
> 4. Expansion index greater than 20, determined in accordance with ASTM D 4829

California Code of Regulations Title 8 (Cal/OHSA)

Subchapter 4 of Title 8 of the California Code of Regulations contains Construction Safety Orders that establish minimum safety standards whenever employment exists in connection with the construction, alteration, painting, repairing, construction maintenance, renovation, removal, or wrecking of any fixed structure or its parts. Safety requirements during excavation, such as sloping and benching or support systems, are also enumerated in these orders.

Seismic Hazards Mapping Act (California Public Resources Code Chapter 7.8)

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate "zones of required investigation" (i.e., seismic hazard zones) where site investigations are required to determine the need for mitigation of potential liquefaction and/or earthquake-induced landslide ground displacements. Cities and counties shall require, prior to the approval of a project located in a seismic hazard zone,

[4] ASTM International, formerly known as the American Society for Testing and Materials (ASTM), provides international voluntary consensus standards (ASTM, 2015).

a geotechnical report defining and delineating any seismic hazard. Cities and counties can establish policies and criteria which are stricter than those established by this act.

National Pollutant Discharge Elimination System Program

Under the Clean Water Act (CWA) Section 402, the National Pollutant Discharge Elimination System (NPDES) controls water pollution by regulating point sources of pollution to waters of the United States. The California State Water Resources Control Board (SWRCB) administers the NPDES permit program in California.

Projects that disturb one or more acres of soil must obtain coverage under the state's NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (general permit). A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each project covered by the general permit. The SWPPP provides specific construction-related best management practices (BMPs) to prevent soil erosion and loss of topsoil. A SWPPP must be prepared before construction begins. The required components and BMPs commonly included in a SWPPP are described in greater detail in Section 5.10, *Hydrology and Water Quality*.

Local

California Public Utilities Commission (CPUC) General Order (GO) No. 131-D explains that local land use regulations would not apply to the Proposed Project. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to geology, soils, and seismicity that would otherwise be relevant to the Proposed Project and alternatives are described below.

Ventura County General Plan

The Ventura County General Plan contains many policies designed to minimize the effects of geologic hazards and erosion, including the following (Ventura County, 2013b):

> *Policy 2.1.2.3:* Essential facilities shall be designed and constructed to resist forces generated by earthquakes, gravity, precipitation, fire, and winds.
>
> *Policy 2.2.2.3*: All development projects involving construction within Earthquake Fault Hazard Zones (as depicted on the State of California, Earthquake Fault Hazards Map for County of Ventura; Figure 2), shall be reviewed by the Public Works Agency Certified Engineering Geologist in accordance with the requirements of the Alquist-Priolo Earthquake Fault Zoning Act and the policies and criteria established by the State pursuant to said Act.
>
> *Policy 2.2.2.5:* Roads, streets, highways, utility conduits, and oil and gas pipelines, shall be planned to avoid crossing active faults where feasible. When such location is unavoidable, the design shall include measures to reduce the effects of any fault movement as much as possible.
>
> *Policy 2.7.2.1:* Development in mapped landslide/mudslide hazard areas shall not be permitted unless adequate geotechnical engineering investigations are performed, and appropriate and sufficient safeguards are incorporated into the project design.

Policy 2.7.2.2: In landslide/mudslide hazard areas, there shall be no alteration of the land which is likely to increase the hazard, including concentration of water through drainage, irrigation or septic systems, removal of vegetative cover, and no undercutting of the bases of slopes or other improper grading methods.

Policy 2.7.2.3: Drainage plans that direct runoff and drainage away from slopes shall be required for construction in hillside areas.

Policy 2.8.2.1: Construction must conform to established standards of the Ventura County Building Code, adopted from the California Building Code.

Policy 2.8.2.2: A geotechnical report, prepared by a registered civil engineer and based upon adequate soil testing of the materials to be encountered at the sub-grade elevation, shall be submitted to the County Surveyor, Environmental Health Division, and Building and Safety for every applicable subdivision and Building Permit application (as required by the California Building Code).

City of Moorpark General Plan

The Safety Element of the Moorpark General Plan includes land use policies designed to minimize the potential damage from geologic and seismic hazards in the City of Moorpark (City of Moorpark, 2001):

Policy 1.2: Require the preparation of detailed geologic studies for any development proposal within seismic hazard zones and liquefaction hazard areas.

Policy 3.2: Require that slope stability analyses be conducted for new development in hillside areas.

Policy 3.3: Require that hillside developments incorporate measures that mitigate slope failure potential and provide for long-term slope maintenance.

City of Thousand Oaks General Plan

The City of Thousand Oaks General Plan includes the following policies related to geologic hazards and erosion control (City of Thousand Oaks, 2014):

Policy B-1: Require any alteration, grading, excavation or fill activity to comply with the City's Grading Ordinance.

Policy B-3: Perform site-specific geologic and engineering investigations for new developments as specified in the CBC and Municipal Code.

Policy B-4: Prohibit grading or relocation of earth on land having a natural slope greater than 25% unless approval is obtained from the Planning Commission or City Council and a grading permit has been obtained from the City Engineer (Municipal Code Section 7-3.07).

Policy B-9: Require that all development activities provide a setback from potentially unstable areas or from the margins of potential debris flow channels and depositional areas as identified through engineering and geologic studies.

Policy B-10: Require drainage plans designed to direct runoff away from unstable areas.

5.7.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant geology and soils effects on the environment if it would:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

   ii. Strong seismic ground shaking;

   iii. Seismic-related ground failure, including liquefaction; 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 risks to life or property; or

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

5.7.3 Applicant Proposed Measures

Applicant proposed measures (APMs) are considered part of the Proposed Project in this impact analysis. One APM applies to geologic hazards and soil resource loss:

> **APM GEO-1: Geotechnical Design Considerations.** A geotechnical data report was prepared for the Project prior to the beginning of construction. The investigation included a total of fourteen (14) soil and rock core borings to collect samples for laboratory testing and analyses and to evaluate the subsurface soil and bedrock conditions. The results of the investigation were utilized to identify the geologic setting and engineering properties of soil and bedrock underlying the ROW, as well as to provide recommendations for the design of foundations for the subtransmission line structures. A geotechnical investigation for the installation of TSPs at the Newbury Substation property would be performed prior to future construction activities at this location.
>
> Based on the findings of the past and future geotechnical analyses, SCE did and would design Project components to minimize the potential for impacts from landslides, lateral spreading, subsidence, liquefaction, or collapse. Measures that have been, or may be, used to minimize impacts could include, but are not limited to avoidance of highly unstable areas and construction of pile foundations. Additionally, subtransmission poles are designed consistent with CPUC GO 95, *Rules for Overhead Line Construction*.

5.7.4 Impacts and Mitigation Measures

Approach to Analysis

This impact analysis considers the potential geology, soils, and seismicity impacts associated with the construction, operation, and maintenance of the Proposed Project. The Proposed Project includes installation of new underground 66 kV subtransmission line within Moorpark Substation, installation of new TSP foundations and poles, removal of existing steel towers and wood poles, installation of new conductor and reconductoring existing subtransmission line, and modifications to Newbury Substation. Proposed Project structures that would be built are not intended for human occupancy. Substation expansion is not part of the Proposed Project and no changes to existing operation and maintenance activities at the Moorpark and Newbury substations are expected once construction is completed. For these reasons, substation components of the Proposed Project would have no impact with respect to geology, soils, or seismicity hazards and impacts. The following discussion therefore includes an analysis of impacts from construction, operation, and maintenance activities associated with the proposed installation of poles, removal of towers and poles, installation of new conductor, and reconductoring.

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: *rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides.*

Impact 5.7-1: Ground surface rupture of an active fault could damage Proposed Project structures and pose a hazard to the public or structures. *Less than significant* (Class III)

The Proposed Project traverses multiple fault traces. Seismic activity along these fault traces may result in surface rupture and damage to Proposed Project structures. In particular, the Proposed Project crosses, and would have the potential to be directly impacted by, surface rupture of the Simi-Santa Rosa A-P Zone. One TSP, at pole location 23, would be installed within the Simi-Santa Rosa A-P Zone, and conductor wire would cross the A-P Zones as shown in Figure 5.7-3, *Seismic Hazards.*

However, the single TSP within the A-P Zone would not be constructed directly on a fault trace. In addition, the TSP and all other Proposed Project structures are not intended for human occupancy. Infrastructure constructed for the Proposed Project would be designed consistent with CPUC GO 95, *Rules for Overhead Line Construction*, to withstand wind, temperature, and wire tension loads, which would reduce the risk of overhead line breakage or other structural damage should fault rupture affect Proposed Project structures. This impact would be less than significant.

Mitigation: None required.

Impact 5.7-2: Strong seismic ground shaking could damage subtransmission structures. *Less than significant* (Class III)

During construction activities, there would be a risk of very strong seismic ground shaking due to nearby active fault zones. As a result, the Proposed Project could experience strong seismic ground shaking. While the Proposed Project is located in an area susceptible to earthquake forces, the subtransmission infrastructure involved would not be used for human occupancy and would be designed consistent with CPUC GO 95, *Rules for Overhead Line Construction*, to withstand wind, temperature, and wire tension loads. Accounting for these factors would result in a design that would be adequate to withstand expected seismic loading, and therefore impacts due to strong seismic ground shaking would be less than significant.

Mitigation: None required.

Impact 5.7-3: Seismic-related ground failure, including liquefaction, could cause damage to Proposed Project structures and, subsequently, create hazardous conditions. *Less than significant* (Class III)

Liquefaction hazards are considered to be low in all areas of the Proposed Project where structures would be installed, with the exception of installation of underground subtransmission line inside Moorpark Substation within Little Simi Valley, and Segment 2 within Santa Rosa Valley. As shown in Figure 5.7-3, both of these Proposed Project sites are located within mapped Liquefaction Hazard Zones (CGS, 2001 and 2002b). The Proposed Project would result in the installation of new ductbank approximately 3 to 5 feet below ground surface at the Moorpark Substation. The amount of sand in the well borings taken from the Little Simi Valley near Moorpark Substation indicates liquefaction could occur at the site. Liquefaction could cause differential settlement of soil underlying the ductbank and result in damage to the structure. While Moorpark Substation is located in a Zone of Required Investigation for seismic hazards, the Proposed Project would not result in the installation of structures for human habitation and consequently additional investigation of and mitigation for the risk posed by liquefaction at Moorpark Substation would not be required by the state. The Proposed Project components at Moorpark Substation would be constructed in compliance with the Moorpark General Plan, which requires detailed geologic studies for developments proposed in liquefaction hazard zones. The Moorpark General Plan does not require geotechnical engineering recommendations be made or incorporated into the Proposed Project. However, in accordance with APM GEO-1, the Proposed Project would be designed to minimize the potential impacts from hazards including liquefaction by incorporating recommendations from future geotechnical reports. Proposed Project design would thus reduce the exposure to liquefaction at the Moorpark Substation.

TSP structures located in potential liquefaction zones in the Santa Rosa Valley are designed to have large diameter, relatively deep, single (mono) foundations. Settlements induced by dynamic (earthquake) forces are anticipated to be uniform for mono foundations, and therefore use of these foundations reduces the potential for differential settlements and other adverse effects including

loss of functionality, or risk of injury or loss of life. The geotechnical data report prepared for the previous construction of the project was a screening investigation to determine whether the project area had obvious indicators of low potential for liquefaction failure. The results of the report indicate that the Santa Rosa Valley sediments are over 75 percent silt or clay-sized particles (Converse, 2011). The soils in the area of the boring, Rincon silty clay loam, have high linear extensibility (NRCS, 2014a), which means soils in the area of the boring sample are relatively cohesive. Cohesive soils are generally not considered susceptible to liquefaction (CGS, 2008b). Therefore, impacts associated with liquefaction would be less than significant for Proposed Project components within the mapped Liquefaction Hazard Zones.

Mitigation: None required.

Impact 5.7-4: An earthquake-induced landslide could damage Proposed Project structures resulting in hazardous conditions. *Less than significant* (Class III)

As discussed in Section 5.7.1, *Setting*, the potential for seismically-induced landslides are a low to moderate potential hazard in the Proposed Project area due to steep slopes (CDMG, 1995). The hillside areas are rated as having low susceptibility to earthquake-induced landslide instability, with a few areas with steep natural slopes rated with moderate susceptibility. Two of the proposed TSPs (TSP 32 and 40) would be constructed in mapped zones of required investigation for seismically-induced landslide hazards (CGS, 2002b). Grading and excavations associated with access road rehabilitation, construction laydown areas, and pole foundation installation, if improperly performed, could create unstable conditions, or worsen existing landslide risks. Cuts into hillsides could remove material that is needed to support the upland material, and road or staging area fills could slough, slump, or ravel if they result in over-steepened slopes. However, as noted above in APM GEO-1, a geotechnical data report was prepared prior to past project construction, and the results of the investigation were utilized to identify the geologic setting and engineering properties of soil and bedrock underlying the right-of-way (ROW), as well as to provide recommendations for the design of foundations for the subtransmission line structures. Per the requirements of APM GEO-1, SCE would design Proposed Project components to minimize the potential for impacts from landslides. In addition, due to siting and design constraints, as well as access and constructability factors, TSPs would generally not be located on steep slopes, or have deep foundations, which reduce the effects of earthquake-induced slope instability. Adherence to sound grading practices (e.g. bracing or underpinning of excavated faces), as stipulated in CPUC GO 95, the International Building Code, and Occupational Safety and Health Administration regulations followed by all California construction projects, would generally ensure that construction activities would not create new areas of instability. Therefore, construction-related impacts due to seismically-induced landslides would be less than significant.

The aforementioned design and siting considerations would also reduce the risk of potential impacts resulting from seismically-induced landslides during operation of the Proposed Project. Landslides could block access roads and reduce access to Proposed Project facilities. Periodic

maintenance patrols would be conducted during operation of the Proposed Project that would identify areas of active slope instability. Any areas of slope instability that would potentially affect Proposed Project facilities (e.g., access roads and TSPs) would be addressed on a case-by-case basis in order to minimize on-site and off-site impacts. Operational impacts under the landslide criterion would be less than significant.

Mitigation: None required.

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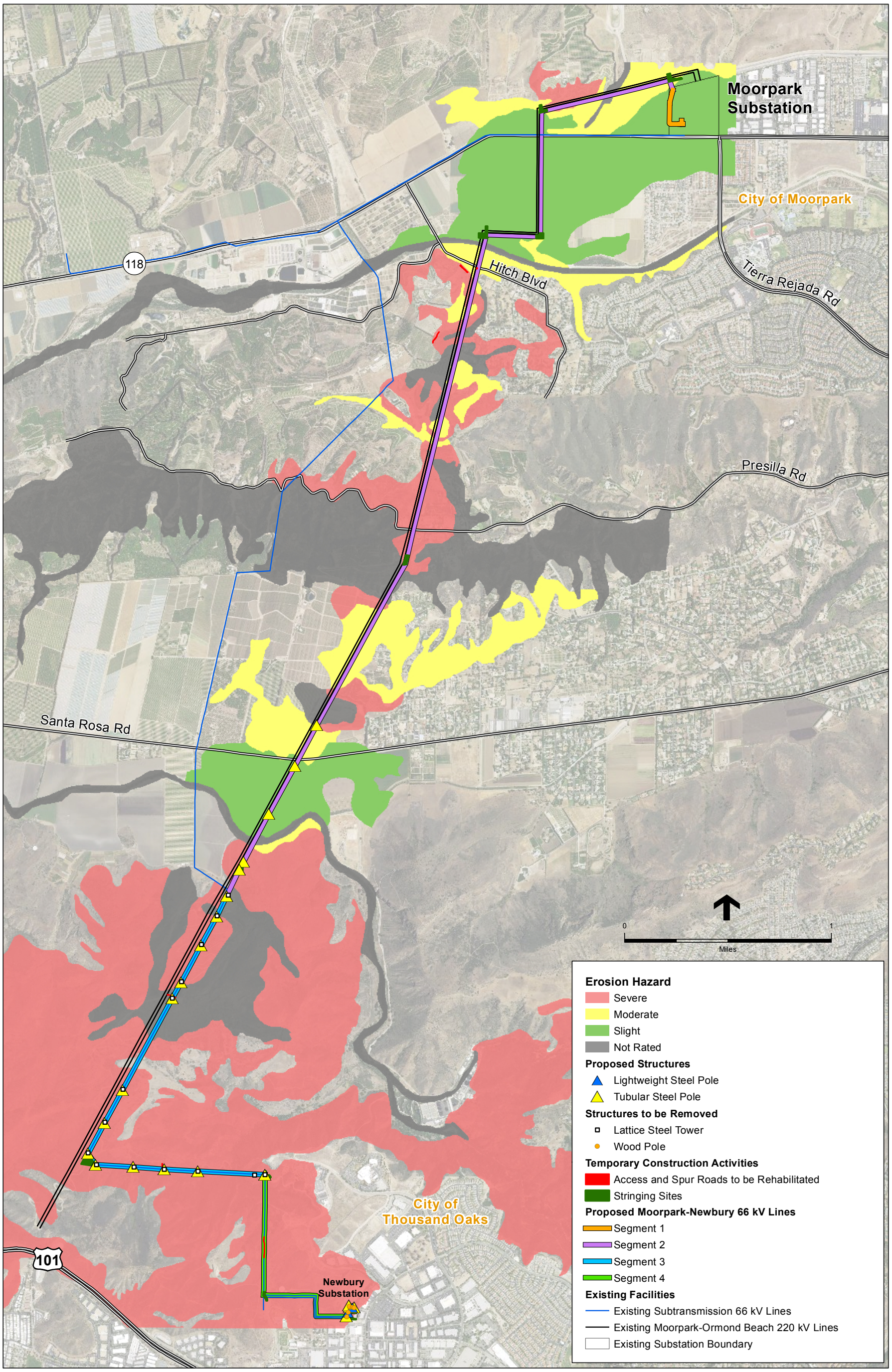
b) Result in substantial soil erosion or the loss of topsoil.

Impact 5.7-5: Construction, operation, and maintenance of the Proposed Project could result in erosion or the loss of topsoil. *Less than significant* (Class III)

Erosion is a natural process whereby soil and highly weathered rock materials are worn away and transported, most commonly by wind or water. Soil erosion can become problematic when human intervention causes rapid soil loss and the development of erosional features (such as incised channels, rills, and gullies) that undermine roads, buildings, or utilities. Vegetation clearing and earth moving reduces soil structure and cohesion, resulting in abnormally high rates of erosion, referred to as accelerated erosion. This typically occurs during construction activity involving grading and soil moving activities (e.g., presence of soil stockpiles, earthen berms, etc.) that loosen soils and make them more susceptible to wind and water erosion. Further, the operation of associated heavy machinery and vehicles over access roads, staging areas, and work areas can compact soils and decrease their capacity to absorb runoff, resulting in rills, gullies, and excessive sediment transport.

Natural rates of erosion vary depending on slope, soil type, and vegetative cover; regional erosion rates are also dependent on tectonics and changes in relative sea level. Soils containing high amounts of silt are typically more easily eroded, while coarse-grained (e.g., sand and gravel) soils are generally less susceptible to erosion. The susceptibility of soils to water erosion along the Proposed Project alignment ranges from low (soils on gentle slopes with bigger particles) to high (relatively steep slopes with a shallow depth to bedrock). Susceptibility of soils to wind erosion generally is low to moderate, but increases to high levels for certain soils along the Proposed Project alignment (soils mapped as CoA, MeA, MeC, MfA, Rw, and Sd in Figure 5.7-3, *Seismic Hazards*). However, these soils are either in areas where poles have already been installed or in areas where soils would not be disturbed.

Table 5.7-1 shows that portions of the Proposed Project alignment would be located in areas designated as having moderate or severe erosion hazard. **Figure 5.7-4**, *Erosion Hazard*, shows the locations of these erosion hazard zones with respect to the Proposed Project. As shown in Figure 5.7-4, of the 16 TSPs to be installed along the Proposed Project alignment, excluding the TSPs planned for the Newbury Substation, 14 TSPs would be installed in soils with an erosion hazard rating of severe. Of the nine locations of access roads or stringing sites, eight are located in soils with an erosion hazard rating of severe. A rating of severe indicates significant erosion is



SOURCE: NRCS, 2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.7-4
Erosion Hazard

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expected, that roads and trails within these locations would require frequent maintenance, and that costly erosion-control measures could be needed.

The Proposed Project would incorporate an existing SWPPP for Construction Activities under the California 2009-0009-DWQ Construction General Permit that was last revised August 10, 2010. To obtain coverage under this permit, SCE would prepare a SWPPP that includes Proposed Project information, design features, monitoring and reporting procedures, as well as Best Management Practices (BMPs). BMPs such as stormwater runoff quality control measures (boundary protection), dewatering procedures, spill reporting, and concrete waste management would be implemented during construction of the Proposed Project as required under the permit. The SWPPP would be based on final engineering design and would be applicable to all components of the Proposed Project. The BMPs in the SWPPP would require that all sources of sediment associated with construction be controlled and that stabilization BMPs installed to reduce or eliminate sediment mobilization after construction is completed are effective and maintained.

With the implementation of the SWPPP, as described above, as well as Mitigation Measure 5.10-1 (see Section 5.10, *Hydrology and Water Quality*), the Proposed Project would minimize the erosion of soil and topsoil resulting from ground disturbance to a less-than-significant level.

Mitigation: None required.

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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.

Impact 5.7-6: Some Proposed Project structures would be built on geologic units or soil that could become unstable. *Less than significant* (Class III)

Construction

For discussion of liquefaction hazards, see item a) iii, above. The majority of the Proposed Project would be constructed in areas subject to precipitation-induced slope instability. Site-specific subsurface borings and laboratory analyses have been conducted. One of the TSPs would be constructed over a location found to have landslide deposits (borings B-9a and B-9b) (Converse, 2011).

However, impacts associated with the risk of landslides and lateral spreading would be reduced to less than significant through the design and siting of Proposed Project components:

- Due to siting and design constraints, as well as access and constructability factors, TSPs are generally not located on steep slopes, and/or have deep foundations which reduce the effects of slope instability.

- Lateral spreading is a secondary effect of liquefaction where blocks of ground move down slopes or toward an open face such as a stream bank or manufactured channel. Project TSPs sited in areas with liquefaction potential are not sited in near proximity to open faces, and therefore the potential for damage due to lateral spreading would not be significant.

No areas of subsidence or soil collapse are known within the Proposed Project area, nor are any expected to occur based on review of published soil data; therefore, impacts under the subsidence and collapse criteria would be less than significant.

Operation and Maintenance

The design and siting considerations discussed above reduce the risk of impacts resulting from seismically-induced landslides during construction of the Proposed Project. Portions of the Proposed Project area are prone to landslides (seismically-induced or otherwise). Landslides could block access and spur roads and reduce access to Proposed Project facilities. Periodic maintenance patrols would be conducted over the operational life of the Proposed Project and would identify areas of active slope instability. Any areas of slope instability that would potentially affect Proposed Project facilities (e.g., access roads, TSPs) would be addressed on a case-by-case basis in order to minimize on-site and off-site impacts. Operational impacts related to landslides would be less than significant.

Lateral spreading hazards are expected to be similar throughout the operational life of the Proposed Project and would be the same as presented above for construction of the Proposed Project. Operational impacts due to liquefaction would be less than significant with implementation of the same measures that would be implemented during construction.

As presented above, because no areas of subsidence or soil collapse are known or expected to occur within the Proposed Project area, operational impacts associated with the risk of subsidence and collapse would be less than significant.

Mitigation: None required.

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d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Impact 5.7-7: Three tubular steel poles would be installed in soils that may be expansive. *Less than significant* (Class III)

Of the 16 TSPs to be installed along the Proposed Project alignment, excluding the TSPs planned for the Newbury Substation, three TSPs would be installed in soils with a linear extensibility rating of moderate or above. This means that soils present could expand and pose a hazard to structures and roads built on these soils. The Proposed Project would be built in accordance with the California Building Code, and would, as required, incorporate engineering design features that would reduce the risks associated with expansive soils. Appropriate design features to

address expansive soils may include excavation of potentially problematic soils during construction and replacement with engineered backfill, ground-treatment processes, direction of surface water and drainage away from foundation soils, and the use of deep foundations such as piers or piles. The use of deep foundations is proposed as part of APM GEO-1. Implementation of these standard engineering methods would ensure that impacts associated with expansive soils would remain less than significant.

Mitigation: None required.

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e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. (No Impact)

The Proposed Project would not include construction of any septic tank or other wastewater disposal system. Accordingly, there would be no potential impact to soils in the Proposed Project area from wastewater disposal (No Impact).

5.7.5 Alternatives

No Project Alternative 1

No Project Alternative 1 would result in the development of no new 66 kV subtransmission line in the proposed location. Under this alternative, no ground disturbing activity would occur along the Proposed Project alignment and no new structures would be built in areas of geologic or soil hazards. No impact would occur under this alternative (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. Ground disturbing activity would potentially include grading and/or clearance of vegetation in previously disturbed work areas and roads, as required for access; TSP foundation removal to approximately 2 feet below ground, or the entire foundation, if required; and removal of slurry.

Impacts would be similar to those under the Proposed Project, as No Project Alternative 2 would include similar construction activities and a comparable area of ground disturbance. Infrastructure removal would require coverage under the Construction General Permit, as described in the discussion for Impact 5.7-5, above, and erosion impacts would be less than significant (Class III). Existing infrastructure is not located on mapped landslide deposits or within Earthquake-Induced Landslide Hazard zones. The likelihood that landsliding would occur during No Project

Alternative 2 is thus low, and related impacts would be less than significant (Class III). No Project Alternative 2 would not include construction of any septic tank or other wastewater disposal system, and there would be no potential impact to soils from wastewater disposal (No Impact). Impacts related to all other significance criteria would be less than significant (Class III).

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5.8 Greenhouse Gas Emissions

This section evaluates the potential for the Proposed Project, as well as the alternatives, to result in impacts associated with greenhouse gas emissions during construction, operation, and maintenance activities.

5.8.1 Environmental Setting

Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). GHGs allow sunlight to enter the atmosphere, but trap a portion of the outward-bound infrared radiation, which warms the air. The process is similar to the effect the glass of a greenhouse has in raising the internal temperature within the greenhouse, hence the name GHGs. Both natural processes and human activities emit GHGs. The natural accumulation of GHGs in the atmosphere regulates the Earth's temperature; however, emissions from human activities – such as fossil fuel-based electricity production and the use of motor vehicles – have elevated the concentration of GHGs in the atmosphere beyond naturally-occurring levels. This increase in GHGs levels has contributed to global climate change. Global climate change is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts attributable to human activities, most in the scientific community agree that there is a direct link between increased emissions of GHGs and long-term climate change.

The principal GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs). CO_2 is the most common of GHGs. To account for the warming potential of GHGs, GHG emissions are often quantified and reported as CO_2 equivalents (CO_2e). For example, SF_6 is a GHG commonly used in the utility industry as an insulating gas in circuit breakers and other electronic equipment. SF_6, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more potent GHG with 22,800 times the global warming potential (GWP) as CO_2. Large emission sources are reported in million metric tons of CO_2e.[1]

Some of the potential effects of global warming in California may include decrease in snow pack, sea level rise, more extreme heat days per year, more days with high levels of atmospheric ozone, more large forest fires, and more drought years (CARB, 2009). Globally, climate change has the potential to affect numerous environmental resources through impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC, 2007):

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

[1] The term metric ton is commonly used in the U.S. to refer to the metric system unit, tonne, which is defined as a mass equal to 1,000 kilograms. A metric ton is approximately 1.1 short tons and approximately 2,204.6 pounds.

There are also many secondary effects that are projected to result from climate change, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term is generally anticipated to be substantial.

Anthropogenic GHG emissions in the United States are derived mostly from the combustion of fossil fuels for transportation and power production. Energy-related CO_2 emissions resulting from fossil fuel exploration and use account for approximately three-quarters of the human-generated GHG emissions in the United States, primarily in the form of CO_2 emissions from burning fossil fuels. Approximately one-third of the GHG emissions come from electricity production, such as power plants; a little over one-quarter derive from transportation; and a majority of the remaining sources include industrial processes, commercial and residential activities, agriculture, and forestry and other land uses (USEPA, 2014a).

Statewide emissions of GHG from relevant source categories for 2006 through 2012 (the most recent year for which data are available) are summarized in **Table 5.8-1,** *California Greenhouse Gas Emissions (Million Metric Tons Co2e).* In 2012, California produced 458.67 million metric tons of CO_2e emissions; Table 5.8-1 shows the percentages of GHG contributions by category for that year. The electric power sector was the source of approximately 21 percent of those GHG emissions (CARB, 2014a).

TABLE 5.8-1
CALIFORNIA GREENHOUSE GAS EMISSIONS (MILLION METRIC TONS CO_2e)

Emission Inventory Category	2006	2007	2008	2009	2010	2011	2012	
Transportation	189.18	189.27	178.02	171.47	170.46	168.13	167.38	36%
Electric Power	104.54	113.94	120.15	101.32	90.3	88.04	95.09	21%
Commercial and Residential	41.89	42.11	42.44	42.65	43.82	44.32	42.28	9%
Industrial	90.28	87.1	87.54	84.95	88.51	88.34	89.16	19%
Recycling and Waste	7.8	7.93	8.09	8.23	8.34	8.42	8.49	14%
High Global Warming Potential	11.08	11.78	12.87	13.99	15.89	17.35	18.41	
Agriculture	37.75	37.03	37.99	35.84	35.73	36.34	37.86	
Total Gross Emissions	**482.52**	**489.16**	**487.1**	**458.45**	**453.05**	**450.94**	**458.67**	**100%**

SOURCE: CARB, 2014a.

Regulatory Setting

Federal

On April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency (USEPA),* 549 US 497, the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act (CAA). The Court held that the USEPA must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to

endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the USEPA is required to follow the language of Section 202(a) of the CAA.

On April 17, 2009, the USEPA Administrator signed proposed "endangerment" and "cause or contribute" findings for GHGs under Section 202(a) of the CAA. The USEPA held a 60-day public comment period, considered public comments, and issued final findings. The USEPA found that six GHGs taken in combination endanger both the public health and the public welfare of current and future generations. The USEPA also found that the combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse effect as air pollution that endangers public health and welfare under CAA Section 202(a) (USEPA, 2014b). Specific GHG regulations that the USEPA has adopted to date are as follows:

40 Code of Federal Regulations (CFR) Part 98. Mandatory Reporting of Greenhouse Gases Rule. This rule requires mandatory reporting of GHG emissions for facilities that emit more than 25,000 metric tons of CO_2e emissions per year (USEPA, 2014c). The Proposed Project would not trigger GHG reporting as required by this regulation.

40 CFR Part 52. Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule. USEPA has mandated that Prevention of Significant Deterioration (PSD) and Title V requirements applies to facilities whose stationary source CO_2e emissions exceed 100,000 tons per year (USEPA, 2014b). The Proposed Project would not trigger PSD or Title V permitting under this regulation.

40 CFR Part 98. Use of Electric Transmission and Distribution Equipment. In addition, pursuant to federal regulations (i.e., 40 CFR Part 98, Subpart DD) operators of certain electrical facilities, such as SF_6-containing circuit breakers, are required to report SF_6 emissions to the USEPA (USEPA, 2014d). SF_6-containing circuit breakers that would be associated with the Proposed Project would be subject to reporting under this regulation.

State

There are currently no state regulations in California that establish ambient air quality standards for GHGs. However, California has passed laws directing the California Air Resources Board (CARB) to develop actions to reduce GHG emissions, and several state legislative actions related to climate change and GHG emissions have come into effect in the past decade.

Executive Order S-3-05

In recognition of California's vulnerability to the effects of climate change, Executive Order S-3-05 was established by Governor Arnold Schwarzenegger in June 2006. It establishes statewide emission reduction targets through the year 2050 as follows:

1. By 2010, reduce GHG emissions to 2000 levels;
2. By 2020, reduce GHG emissions to 1990 levels; and
3. By 2050, reduce GHG emissions to 80 percent below 1990 levels.

This Executive Order does not include any specific requirements that pertain to the Proposed Project; however, future actions taken by the state to implement these goals may affect the Proposed Project, depending on the specific implementation measures that are developed.

Assembly Bill 32

California Assembly Bill (AB) 32, also known as the Global Warming Solutions Act of 2006, required CARB to establish a statewide GHG emissions cap for 2020 based on 1990 emission levels. AB 32 also required CARB to adopt regulations that identify and require selected sectors or categories of emitters of GHGs to report and verify their statewide GHG emissions, and authorized CARB to enforce compliance with the program. CARB established the GHG emissions cap in December 2007, at 427 million metric tons of CO_2e. This is approximately 30 percent below forecasted "business-as-usual" emissions of 596 million metric tons of CO_2e in 2020, and about 10 percent below average annual GHG emissions during the period of 2002 through 2004 (CARB, 2009).

Toward achieving the maximum technologically feasible and cost-effective GHG emission reductions, AB 32 permits the use of market-based compliance mechanisms and requires CARB to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism that it adopts.

Climate Change Scoping Plan

In December 2008, CARB approved the *AB 32 Scoping Plan* outlining the state's strategy to achieve the 2020 GHG emissions limit. The Scoping Plan estimated a reduction of 174 million metric tons CO_2e (about 191 million U.S. tons) could be achieved from the transportation, energy, agriculture, forestry, and high climate-change-potential sectors, and proposed a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify California's energy sources, save energy, create new jobs, and enhance public health. The Scoping Plan includes a list of 39 Recommended Actions contained in Appendices C and E of the Scoping Plan (CARB, 2009). Of these measures, only one is directly relevant to the Project. Measure H-6, High GWP Gases was designed to reduce emissions of SF_6 within the electric utility sector and at particle accelerators by requiring the use of best achievable control technology for the detection and repair of leaks, and the recycling of SF_6.

The Scoping Plan must be updated every 5 years to evaluate the implementation of AB 32 policies to ensure that California is on track to achieve the 2020 GHG reduction goal. CARB released the Scoping Plan Update in May 2014 (CARB, 2014b). There are no recommended actions identified in the Scoping Plan Update that are directly applicable to the Proposed Project.

Senate Bill 97

In 2007, the California State Legislature passed SB 97, which required amendment of the California Environmental Quality Act (CEQA) Guidelines to incorporate analysis of, and mitigation for, GHG emissions from projects subject to CEQA. The amendments took effect March 18, 2010. The amendments added Section 15064.4 to the CEQA Guidelines, specifically addressing the potential significance of GHG emissions. Section 15064.4 calls for a "good faith

effort" to "describe, calculate or estimate" GHG emissions and indicates that the analysis of the significance of any GHG impacts should include consideration of the extent to which the project would:

- Increase or reduce GHG emissions;
- Exceed a locally applicable threshold of significance; or
- Comply with "regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions."

The CEQA Guidelines also state that a project may be found to have a less-than-significant impact related to GHG emissions if it complies with an adopted plan that includes specific measures to sufficiently reduce GHG emissions (14 Cal. Code Regs. §15064(h)(3)). Importantly, however, the CEQA Guidelines do not require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of GHG emissions.

Regulation for Reducing SF_6 Emissions from Gas Insulated Switchgear

The purpose of this regulation (17 Cal. Code Regs. §95350 et seq.) is to achieve GHG emission reductions by reducing SF_6 emissions from gas-insulated switchgear. Owners of such switchgear must not exceed maximum allowable annual emissions rates, which are reduced each year until 2020, after which annual emissions must not exceed 1.0 percent of the total SF_6 capacity of all of the owner's active gas-insulated switchgear equipment. As defined by the regulation, the annual emissions rate equals the gas-insulated switchgear owner's total annual SF_6 emissions from all active gas-insulated switchgear equipment divided by the average annual SF_6 nameplate capacity of all active gas-insulated switchgear equipment. Owners must regularly inventory gas-insulated switchgear equipment, measure quantities of SF_6, and maintain records of these for at least 3 years. Additionally, by June 1st each year, owners also must submit an annual report to CARB's Executive Officer for emissions that occurred during the previous calendar year (CARB, 2014c).

Local

There are no local adopted policies or goals for reducing GHG emissions that would be directly applicable to the Proposed Project.

5.8.2 Significance Criteria

Based on CEQA *Guidelines* Sections 15064.4 and 15064.7(c), as well as Appendix G, a project would result in significant GHG emissions effects on the environment if it 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 the emissions of GHGs.

5.8.3 Applicant Proposed Measures

Southern California Edison (SCE) has identified no applicant proposed measures (APMs) to address issues related to GHG emissions.

5.8.4 Impacts and Mitigation Measures

Approach to Analysis

The Proposed Project would result in GHG emissions from both short-term construction and long-term operations and maintenance activities. CEQA allows for significance criteria established by the applicable air pollution control district to be used to assess the impact of a project related to GHG emissions, at the discretion of the CEQA Lead Agency. In November 2011, the Ventura County Air Pollution Control District (VCAPCD) released a report that identified several GHG thresholds of significance options to assess land use development projects in Ventura County (VCAPCD, 2011). The report concluded that it would be logical to set GHG emission thresholds of significance for land use development projects in Ventura County at levels consistent with those set by the South Coast Air Quality Management District (SCAQMD) given that Ventura County is adjacent to the SCAQMD jurisdiction and is a part of the Southern California Association of Governments region, as is SCAQMD. To date, the VCAPCD has not adopted CEQA significance thresholds for GHG emissions.

The SCAQMD has adopted an interim significance threshold of 10,000 metric tons CO_2e per year for operation of stationary source projects (SCAQMD, 2008). This threshold was derived from emissions data from the four largest air districts in California and is based on the Executive Order S-3-05 GHG emissions reductions goal of 80 percent below 1990 levels by 2050, which is roughly equivalent to 90 percent below current levels by 2050. This emissions reduction goal goes beyond the AB 32 emissions reduction goal established for 2020. The emissions data suggests that approximately 1 percent of all stationary sources emit greater than 10,000 metric tons CO_2e per year and are responsible for 90 percent of GHG emissions. This significance threshold represents a capture rate of 90 percent of all new and modified stationary source-related projects. A 90 percent emissions capture rate means 90 percent of the total emissions from all new or modified stationary source projects would be subject to analysis in an environmental impact report prepared pursuant to CEQA, including analysis of feasible alternatives and imposition of feasible mitigation measures (SCAQMD, 2008). The California Public Utilities Commission (CPUC) has determined that the GHG significance threshold of 10,000 metric tons per year for stationary source projects is based on substantial evidence and, therefore, has determined that it is appropriate for use in this analysis.

As noted above, this GHG significance threshold is intended for long-term operational GHG emissions associated with stationary sources; the VCAPCD and SCAQMD have not adopted or recommended GHG significance thresholds for construction emissions. Therefore, the CPUC has elected to use an approach to the determination of significance of GHG construction emissions based on guidance developed by the SCAQMD. For construction related GHGs, SCAQMD recommends that total emissions from construction be amortized over 30 years and added to

operational emissions and then compared to the operation-based significance threshold (SCAQMD, 2008). Similar to the SCAQMD's recommended approach for construction emissions, this analysis amortizes Proposed Project construction emissions over a 30-year project lifetime, adds them to the operational emissions, and then compares the combined emissions to the significance threshold of 10,000 metric tons CO_2e per year.

There are no applicable Ventura County, City of Moorpark, or City of Thousand Oaks plans, policies, or regulations that would be directly applicable to the Proposed Project. However, the Proposed Project's potential to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions is assessed by examining any potential conflicts with the GHG reduction goals set forth in Executive Order S-3-05 and AB 32, including the potential for the Proposed Project to conflict with the 39 Recommended Actions identified by CARB in its Climate Change Scoping Plan and/or any associated adopted regulations.

a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact 5.8-1: The Proposed Project would generate GHG emissions. *Less than significant* (Class III)

This analysis estimates both short-term construction emissions and long-term operational emissions that would be associated with the Proposed Project, as discussed below.

Construction Emissions

Construction of the Proposed Project would generate GHG emissions over a construction period of approximately 10 months. Exhaust emissions would result from construction equipment and machinery as well as from vehicular traffic generated by construction activities. As part of the CPUC's Permit to Construct application process, SCE provided construction-related GHG emissions estimates for the construction activities that would be associated with the Proposed Project (see Appendix D, *Air Quality and Greenhouse Gas Emissions Calculations*).

CPUC's consultant, Environmental Science Associates (ESA) independently reviewed the emission estimates. SCE estimated Proposed Project emissions using the California Emissions Estimator Model (CalEEMod) version 2011.1.1 developed by the SCAQMD. This version of CalEEMod calculates the construction equipment exhaust emissions based on CARB's OFFROAD2007 equipment emission and load factors. Subsequent to the release of this version of CalEEMod, CARB released an updated OFFROAD2011 model that includes more accurate equipment load factors that are based on recent academic studies and data from engine manufacturers. For its most recent version of the OFFROAD model released in 2011, CARB revised its construction equipment load factors, reducing them by 33 percent compared to those associated with the OFFROAD2007 model (CARB, 2010). Therefore, ESA revised SCE's estimated off-road equipment emissions estimates to reflect CARB's updated equipment use factors (ESA, 2015).

The short-term construction emissions estimates provided by SCE do not include helicopter emissions estimates or indirect emissions estimates associated with the proposed use of 37 acre-

feet of water for dust suppression. Therefore, ESA supplemented SCE's emissions estimates to include construction-related helicopter emissions estimated using emission factors obtained from the Emissions and Dispersion Modeling System (EDMS) version 5.1.4.1 and The Climate Registry (TCR) (TCR, 2014), as well as indirect short-term electricity usage-related GHG emissions associated with proposed water use for dust control activities using emission and use factors established by the California Energy Commission (CEC) and TCR (CEC, 2005; TCR, 2014). See Appendix D for all emission factors and assumptions used to estimate GHG emissions that would be associated with construction of the Proposed Project.

Table 5.8-2, *Proposed Project Construction GHG Emissions*, presents the total estimated GHG construction emissions that would be associated with the Proposed Project generated by off-road construction equipment and on-road vehicles, as well as indirect emissions related to electricity use that would be associated with water required for dust suppression. Approximately 1,138 metric tons of CO_2e would be generated during the Proposed Project's 10-month construction phase.

TABLE 5.8-2
PROPOSED PROJECT CONSTRUCTION GHG EMISSIONS

Emissions Source	CO_2e metric tons
Off-road Construction Equipment and On-road Vehicles	1,090
Helicopter	11
Indirect – Electricity Associated with Water Use	37
Total	**1,138**

SOURCE: ESA, 2015, based on SCE, 2013, and SCE, 2014; see Appendix D for all emissions estimates.

Operation and Maintenance Emissions

Mobile source emissions-related activities associated with Proposed Project operation would be limited to 180 maintenance and inspection trips per year and one annual inspection using a helicopter. ESA estimated vehicle-related operation and maintenance emissions using emission factors obtained from CARB's Mobile Sources Emission Inventory (EMFAC) 2014 model for light duty trucks; helicopter emissions were estimated using emission factors obtained from EDMS version 5.1.4.1 and TCR (TCR, 2014). Total vehicle and helicopter emissions that would be generated each year would be approximately 3 metric tons CO_2e. In addition, GHG emissions associated with operation of the Proposed Project would result from the installation of four SF_6-containing circuit breakers at Newbury Substation. As part of the CPUC's Permit to Construct application process, SCE provided a long-term SF_6 emissions estimate; however, the estimate was calculated using an unsupported circuit breaker leak rate of 0.5 percent of the total SF_6 capacity of the proposed circuit breakers. Therefore, ESA revised the long-term SF_6 operational emissions estimate using a USEPA SF_6 published leak rate for electrical circuit breakers manufactured in and after 1999 of up to 1.0 percent (USEPA, 2006). Using the USEPA referenced leak rate of 1.0 percent, annual SF_6 emissions that would be associated with the Proposed Project have been estimated to be equivalent to approximately 12 metric tons CO_2e per year (ESA, 2014).

Amortized Annual Emissions

As indicated in Table 5.8-2, *Proposed Project Construction GHG Emissions*, total GHG construction emissions would be approximately 1,138 metric tons CO_2e. These emissions amortized over a 30-year period equal approximately 38 metric tons per year. As presented in **Table 5.8-3**, *Proposed Project Amortized Annual Emissions*, adding 38 metric tons of CO_2e to the operational emissions of 15 metric tons CO_2e per year equals a total Proposed Project GHG emissions rate of approximately 53 metric tons CO_2e per year, which would be substantially less than the significance threshold of 10,000 metric tons CO_2e per year. Therefore, the GHG emissions that would be generated by the Proposed Project would not be cumulatively considerable and would not significantly contribute to global climate change. The associated impact would be less than significant.

TABLE 5.8-3
PROPOSED PROJECT AMORTIZED ANNUAL EMISSIONS

Emissions Source	CO_2e metric tons/year
Construction emissions: total amortized	38
Maintenance and operations: trucks and helicopter inspections	3
Maintenance and operations: leaking SF_6	12
Total	**53**
Significance threshold	10,000
Significant impact?	No

SOURCE: ESA, 2014, based on SCE, 2013, and SCE, 2014; see Appendix D for all emissions estimates.

Mitigation: None required.

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b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. (No Impact)

Construction, operation, and maintenance of the Proposed Project would result in increased GHG emissions from baseline conditions; however, they would not conflict with GHG reduction goals set forth in Executive Order S-3-05 or AB 32, including the 39 Recommended Actions identified by CARB in its Climate Change Scoping Plan.

Regarding management of Proposed Project-related SF_6, SCE has developed and would implement SF_6 gas management guidelines as described in SCE's document entitled *An Asset Management Approach for EPA/CARB SF6 Regulations* (SCE, 2012). This document includes an overview of the tools and methods that SCE utilizes to comply with both USEPA's Voluntary SF_6 Emission Reduction Partnership program and CARB's SF_6 regulations. This guideline document identifies storage methods, disposal method alternatives, and record-keeping requirements. Inventories of SF_6 that would be associated with the Proposed Project would be documented and annually reported to USEPA and CARB. Therefore, the Proposed Project would be consistent

with the intent of Scoping Plan Measure H-6: High Global Warming Potential Gas Reductions from Stationary Sources, and CARB's associated legislation. Because the Proposed Project would be consistent (and would not conflict) with these plans, policies, and regulations, it would cause no impact related to this significance criterion (No Impact).

5.8.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the construction, operation, and maintenance-related impacts that would result under the Proposed Project, as discussed in Section 5.8.4, *Impacts and Mitigation Measures,* would not occur. There would be no impact under No Project Alternative 1 (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. Infrastructure removal under No Project Alternative 2 would generate GHG emissions from construction equipment over a period estimated to be approximately 5 months. Short-term exhaust emissions would result from construction equipment and machinery as well as from vehicular traffic generated by construction activities. There would be no emissions associated with long-term operation or maintenance under No Project Alternative 2. Estimated emissions that would be associated with No Project Alternative 2 were estimated by ESA based on emissions of similar construction phases associated with the Proposed Project, adjusted to No Project Alternative 2 assumptions. See Appendix D, *Air Quality and Greenhouse Gas Emissions Calculations,* for all assumptions used to estimate No Project Alternative 2 emissions.

Table 5.8-4, *No Project Alternative 2 Emissions,* presents the total estimated GHG emissions that would be associated with infrastructure removal under No Project Alternative 2 generated by off-road construction equipment and on-road vehicles, as well as indirect emissions related to electricity use that would be associated with water required for dust suppression. As described in the table, a total of approximately 263 metric tons of CO_2e would be generated from removal of existing infrastructure under No Project Alternative 2. These emissions amortized over a 30-year period equal approximately 9 metric tons CO_2e per year, which is equal to approximately 17 percent of the total amortized emissions that would be generated under the Proposed Project. Consequently, similar to the Proposed Project, impacts from GHG emissions from implementation of No Project Alternative 2 would be less than significant (Class III), and No Project Alternative 2 would be consistent (and would not conflict) with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions (No Impact).

TABLE 5.8-4
NO PROJECT ALTERNATIVE 2 EMISSIONS

Emissions Source	CO_2e metric tons
Construction: off-road equipment and on-road vehicles	297
Indirect: electricity associated with water use	18
Total	**315**
Amortized Total	**11**

SOURCE: ESA, 2014, based on SCE, 2013, and SCE, 2014; see Appendix D for all emissions estimates.

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5.9 Hazards and Hazardous Materials

This section evaluates potential hazardous materials and public health impacts that would be associated with the Proposed Project and alternatives.

5.9.1 Setting

This section provides setting information specific to hazards and hazardous materials in the areas of the Proposed Project and alternatives. It discusses the potential presence of hazardous materials in soil and groundwater based on past and current operations, as well as in the wood power poles that would be removed under the Proposed Project. Wildfire hazard areas are also identified, as are the locations of nearby airports and schools. This section concludes with a discussion of the regulatory setting applicable to hazards and hazardous materials.

The term "hazardous materials" refers to both hazardous substances and hazardous wastes. Under federal and state laws, any material, including waste, may be considered hazardous if it is specifically listed by statute as such or if it is toxic (causes adverse human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gases). The term "hazardous material" is defined as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.[1]

In some cases, past industrial or commercial activities on a site may have resulted in spills or leaks of hazardous materials to the ground, resulting in soil and/or groundwater contamination. If improperly handled, hazardous materials and wastes can cause public health hazards when released to the soil, groundwater, or air. The four basic exposure pathways through which an individual can be exposed to a chemical agent include inhalation, ingestion, bodily contact, and injection. Exposure can occur as a result of an accidental release during transportation, storage, or handling of hazardous materials. Disturbance of subsurface soil during construction can also lead to exposure of workers or the public from soils contaminated by hazardous materials from previous spills or leaks.

In addition to toxic substances, the California Public Utilities Commission (CPUC) generally provides information about electric and magnetic fields (EMF) in its environmental documents, including this Environmental Impact Report (EIR), to inform the public and decision makers; however, it does not consider EMF, in the context of California Environmental Quality Act (CEQA), as an environmental impact 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. For informational purposes, additional information about EMF generated by power lines is provided in Chapter 3, *Project Description,* and Appendix C.

1 State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

Existing Environment

Potential Presence of Hazardous Materials in Soil and Groundwater

To evaluate the potential presence of hazardous materials in soil and groundwater, a regulatory database search of sites in the vicinity of the Proposed Project and alternative corridors was conducted to identify the documented use, storage, generation, or releases of hazardous materials and/or petroleum products in the area (CEH&S Environmental Engineering, 2012; SWRCB, 2014a and 2014b). The database search process included reviews of lists generated by federal, state, and county regulatory agencies for historically contaminated properties and for businesses that use, generate, or dispose of hazardous materials or petroleum products in their operation. In addition, active contaminated sites that are currently undergoing monitoring and remediation are identified.

The listed sites within the vicinity of the Proposed Project are provided in **Table 5.9-1**. These sites may have been subjected (or are suspected of being subjected) to a release of hazardous materials or petroleum products that has resulted in contamination of soil and/or groundwater. The table identifies two open cases within 0.5 mile of the Proposed Project. Both sites are identified as Category 1, which includes small sites characterized by soil or groundwater contamination that do not pose an immediate human health threat and do not extend off-site onto neighboring properties (SWRCB, 2014a). The sites are summarized below (CEH&S Environmental Engineering, 2012):

- **Smith Pumps Site** – This site is located at 1299 Lawrence Drive in the City of Thousand Oaks, approximately 0.16 mile northeast of Newbury Park Substation. The site is identified as having soil contamination by solvents. It is listed as not posing an immediate human health threat and existing contamination does not extend off-site onto neighboring properties (Category 1).

- **Northrop Aircraft Division Site** – This site is located at 1515 Rancho Conejo Boulevard in the City of Thousand Oaks, approximately 0.43 mile east-northeast of Newbury Park Substation. The site has been identified as having groundwater contamination with perchlorate, petroleum, and volatile organic compounds being the contaminants of concern. It is listed as not posing an immediate human health threat and existing contamination does not extend off-site onto neighboring properties (Category 1).

Wood Treatment Products

The Proposed Project would include removal of six wood poles at Newbury Substation. The wood poles could be treated with chemicals such as pentachlorophenol, creosote, and chromated copper arsenate. Typically, these chemicals are applied to utility wood poles during manufacturing to protect wood from rotting due to insects and microbial agents. These chemicals, for certain uses and quantities, can be considered to be hazardous materials, which require specific handling procedures and disposal prescribed by state and federal regulations. Additionally, the base of the treated wood poles may be wrapped with copper naphthenate paper, also known as CuNap wrap.[2] This paper has

[2] CuNap wrap is a self contained delivery system for copper napthenate, the internationally recognized wood preservative that fights the damaging effects of moisture, decay, and insect attack.

TABLE 5.9-1
HAZARDOUS MATERIALS SITES IN THE VICINITY OF THE PROPOSED PROJECT

Site Name	Distance to Project Corridor[a]	Regulatory List[b]	Notes
Peach Hill Organic Recycling	0.37 mile N	Landfills	Composting Operation
City of Thousand Oaks	0.25 mile E	UST	FACILITY ID: 056-000-002904
United Parcel Service	0.46 mile E	UST	FACILITY ID: 056-000-001937
Wendy Drive Chevron	0.38 mile S	UST	FACILITY ID: 056-000-001937
Vulcan Materials Co. Moorpark	0.48 mile E	TRI (Air)	ID No: 110013286050
Baxter Bioscience	0.32 mile E	TRI (Air)	ID No: 110002910752
JDK Controls Inc.	0.24 mile E	TRI (Air)	ID No: 110002142048
Wilson Golf Division	0.13 mile S	TRI (Air)	ID No: 110002142039
Fluid Ink Technology, Inc.	0.35 mile E	TRI (Air)	ID No: 110002145580
Polycore Electronics, Inc.	0.19 mile NE	Contaminated EnviroStor Site	No further action as of 7/31/1991
Conejo Circuits, Inc.	0.25 mile E	Contaminated EnviroStor Site	NA
Multilayer Prototypes, Inc.	0.37 mile S	Contaminated EnviroStor Site	NA
Baxter Health Corp.	0.49 mile E	Contaminated EnviroStor Site	NA
Wendy Arco Station	0.39 mile S	LUST Cleanup Site	Case closed as of 10/18/2011
Amplica (Former)	0.34 mile S	GeoTracker	Case closed as of 3/31/1999
Home Savings of America	0.15 mile E	LUST Cleanup Site	Case closed as of 12/13/1995
Chevron #9-0415	0.40 mile S	LUST Cleanup Site	Case closed as of 8/8/2012
Smith Pumps	0.16 mile E	GeoTracker	Open – Category 1 type
GTE	0.43 mile S	GeoTracker	Case closed as of 10/10/1996
Hill Canyon Treatment Plant	0.20 mile E	LUST Cleanup Site	Case closed as of 6/2/2004
Prudential Overall Supply	0.27 mile E	GeoTracker	Case closed as of 7/30/2002
Northrop Aircraft Division	0.43 mile E	GeoTracker	Open
Conejo Corporate Center	0.23 mile E	GeoTracker	Case closed as of 4/19/1997
Former Compsat Corp.	0.34 mile S	GeoTracker	Case closed as of 4/1/1999
Former Amplica	0.29 mile S	GeoTracker	Case closed as of 4/1/1999
Metropolitan Life	0.43 mile E	GeoTracker	Case closed as of 12/13/1995
Hitch Blvd. Lift Station	0.40 mile W	GeoTracker	Case Closed as of 4/15/2002

[a] The distances shown represent the approximate distance to closest portion of the Proposed Project.
[b] Date Source Notes:
Landfills: Maintained by the California Integrated Waste Management Board.
UST: Underground Storage Tank sites; list maintained by the California State Water Resources Control Board, Geotracker.
TRI (Air): Air Toxic Release Inventory Facilities; maintained by U.S. Environmental Protection Agency.
Contaminated EnviroStor Sites: Maintained by the California Department of Toxic Substances Control.
LUST Cleanup Site: Leaking Underground Storage Tanks; maintained by the California State Water Resources Control Board.
GeoTracker Site: Maintained by the California State Water Resources Board and the California Department of Toxic Substances Control.
Cleanup Program Site:

NA: No additional information is available.

SOURCE: CEH&S Environmental Engineering, 2012; SWRCB, 2014a and 2014b

been accepted as a wood preservative for several decades and has been employed in non-pressure treatments of wood and other products. Copper naphthenate is a common preservative and its use has increased recently in response to environmental concerns associated with other wood treatment products.

Wildfire Hazards

Responsibility for responding to wildfires in the Proposed Project area is assigned to the Ventura County Fire Department (VCFD). The VCFD has implemented a Wildfire Action Plan to assist residents in saving themselves and their property during a wildfire through advanced planning (VCFD, 2013). The California Department of Forestry and Fire Protection (CAL FIRE) has mapped fire hazard severity zones in Ventura County (County), including the Proposed Project area (see **Figure 5.9-1**, *Wildfire Hazards*). The Proposed Project area is mostly located in areas mapped as a very high Fire Hazard Severity Zone, with smaller lengths of the Proposed Project alignment found in high or moderate Fire Hazard Severity Zones (Cal Fire, 2007; 2010).

Airports

There are no public airports or private airstrips within 2 miles of the Proposed Project. The closest public airports are the Camarillo Airport located approximately 7 miles to the west of Segment 3, and the Santa Paula Airport located approximately 9.5 miles northwest of Segment 2. In addition, there are numerous helipads in the area, including one at Moorpark Substation. The next closest helipads to the Proposed Project are the RI Science Center Helistop located approximately 1 mile east of Newbury Substation, the TWI II Heliport located approximately 3 miles south of Newbury Substation, and the Los Robles Regional Medical Center helipad located approximately 3 miles to the northeast of Newbury Substation.

Schools

There are three schools that are located within 0.25 mile of the Proposed Project, including:

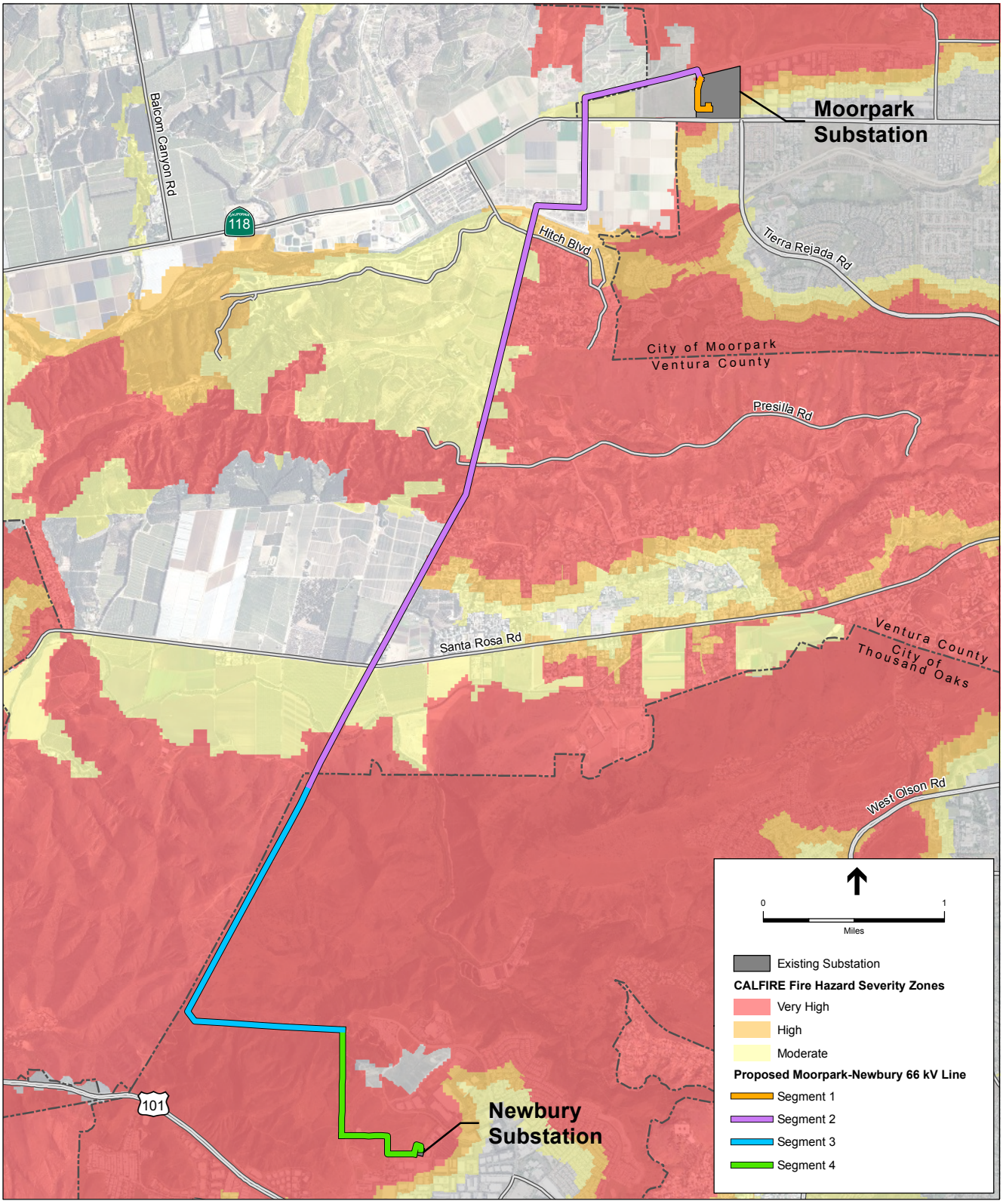
- The Newbury Park Adventist Academy, a private high school located at the terminus of Wendy Drive, approximately 0.15 mile south of Segment 4, west of Newbury Substation.
- The Conejo Adventist Elementary School, a private school (pre-school through 8th grade) located approximately 0.19 mile south of Segment 4, west of Newbury Substation.
- Passageway School, a special education school that is located approximately 0.08 mile south of Newbury Substation.

Regulatory Setting

Federal

Occupational Safety and Health Administration

The federal Occupational Safety and Health Administration (OSHA) enforces regulations covering the handling of hazardous materials in the workplace. The regulations established in the Code of Federal Regulations (CFR) Title 29 are designed to protect workers from hazards



SOURCE: SCE, 2013; CALFIRE, 2007

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Figure 5.9-1
Wildfire Hazards

associated with encountering hazardous materials at the work site. The regulations require certain training, operating procedures, and protective equipment to be used at work sites where hazardous materials could be encountered.

Resource Conservation and Recovery Act

Under the federal Resource Conservation and Recovery Act (RCRA), individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as federal RCRA requirements and is approved by the U.S. Environmental Protection Agency (USEPA). The USEPA approved California's RCRA program, referred to as the Hazardous Waste Control Law (HWCL) in 1992.

Toxic Substance Control Act

The Toxic Substances Control Act of 1976 was enacted by Congress to give the USEPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. The USEPA repeatedly screens these chemicals and can require reporting or testing of those that may pose an environmental or human-health hazard. The USEPA can ban the manufacture and import of those chemicals that pose an unreasonable risk.

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) was developed to protect the water, air, and land resources from the risk created by past chemical disposal practices. This act is also referred to as the Superfund Act, and the sites listed under it are referred to as Superfund sites. Under CERCLA, the USEPA maintains a list, known as the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), of all contaminated sites in the nation that have in part or are currently undergoing clean-up activities. CERCLIS contains information on current hazardous waste sites, potential hazardous waste sites, and remediation activities. This includes sites that are on the National Priorities List (NPL) or being considered for the NPL.

State

California Code of Regulations

The California Code of Regulations (CCR), Title 22, Section 66261.20-24, contains technical descriptions of characteristics that would classify wasted material, including soil, as hazardous waste. When excavated, soils with concentrations of contaminants higher than certain acceptable levels must be handled and disposed as a hazardous waste.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) administer the requirements of the Clean Water Act that regulate pollutant discharges into waterways of the U.S. The Los Angeles Regional Water Quality Control Board (LARWQCB) enforces site cleanup regulations for illicit discharges that have resulted in contamination of groundwater in the Proposed Project area.

California Hazardous Materials Release Response Plans and Inventory Law

The California Hazardous Materials Release Response Plan and Inventory Law of 1985 (Business Plan Act) requires that businesses that store hazardous materials on-site prepare a business plan and submit it to local health and fire departments. The business plan must include details of the facility and business conducted at the site, an inventory of hazardous materials that are handled and stored on-site, an emergency response plan, and a safety and emergency response training program for new employees with an annual refresher course.

California Occupational Safety and Health Administration

In California, the California OSHA (CalOSHA) regulates worker safety similar to the federal OSHA.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

In January 1996, the California Environmental Protection Agency (CalEPA) adopted regulations, which implemented the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The program has six elements, including: (1) hazardous waste generators and hazardous waste on-site treatment; (2) underground storage tanks (USTs); (3) aboveground storage tanks (ASTs); (4) hazardous materials release response plans and inventories; (5) risk management and prevention programs; and (6) Unified Fire Code hazardous materials management plans and inventories. The plan is implemented at the local level and the agency responsible for implementation of the Unified Program is called the Certified Unified Program Agency (CUPA). In the Proposed Project area, the Ventura County Department of Environmental Health, Environmental Services Division is the designated CUPA.

Department of Toxic Substance Control

The California Department of Toxic Substances Control (DTSC) is responsible for regulating the use, storage, transport, and disposal of hazardous substances in the state. DTSC maintains a Hazardous Waste and Substances Site List for site cleanup. This list is commonly referred to as the Cortese List. Government Code Section 65962.5 requires the CalEPA to update the Cortese List at least annually. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

Hazardous Waste Management and Handling

Under RCRA, individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as federal RCRA requirements. The USEPA must approve state programs intended to implement federal regulations. In California, CalEPA and DTSC, a department within CalEPA, regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. The USEPA approved California's RCRA program (HWCL), in 1992. DTSC has primary hazardous material regulatory responsibility, but can delegate enforcement responsibilities to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the HWCL.

The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; prescribe the management of hazardous wastes; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in ordinary landfills. Hazardous waste manifests must be retained by the generator for a minimum of 3 years. Hazardous waste manifests provide a description of the waste, its intended destination, and regulatory information about the waste. A copy of each manifest must be filed with the state. The generator must match copies of hazardous waste manifests with receipts from treatment, storage, and disposal facilities.

Aboveground Storage of Petroleum Products

The Aboveground Petroleum Storage Act of 1990 requires owners or operators of facilities that store petroleum products with a capacity of 1,320 gallons or more to file a storage statement with the SWRCB and prepare a spill prevention, control, and countermeasure (SPCC) plan. The plan must identify appropriate spill containment or equipment for diverting spills from sensitive areas, as well as discuss facility-specific requirements for the storage system, inspections, recordkeeping, security, and personnel training.

The SWRCB requires registration of an AST at a construction site only if the tank is 20,000 gallons or larger, or if the aggregate volume of aboveground petroleum storage is over 100,000 gallons, which would not be applicable to the Proposed Project. For smaller temporary tanks used during construction, methods for controlling a release and measures to clean up an accidental release and prevent degradation of water quality are addressed in the construction storm water pollution prevention plan (SWPPP) that would be prepared for the Proposed Project, as described in Section 5.10, *Hydrology and Water Quality*.

Underground Storage Tanks

State laws governing USTs specify requirements for permitting, monitoring, closure, and cleanup associated with these facilities. Regulations set forth construction and monitoring standards for existing tanks, release reporting requirements, and closure requirements. In the Proposed Project area, the Ventura County Department of Environmental Health, Environmental Services Division has regulatory authority for permitting, inspection, and removal of USTs. Any entity proposing to remove a UST must submit a closure plan to the Environmental Services Division prior to tank removal. Upon approval of the UST closure plan, the Environmental Services Division would issue a permit, oversee removal of the UST, require additional subsurface sampling if necessary, and issue a site closure letter when the appropriate removal and/or remediation has been completed.

Hazardous Materials Transportation

The State of California has adopted U.S. Department of Transportation (USDOT) regulations for the intrastate movement of hazardous materials; state regulations are contained in 26 CCR. In addition, the State of California regulates the transportation of hazardous waste originating in the state and passing through the state (26 CCR). Both regulatory programs apply in California.

The two state agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol

(CHP) and the California Department of Transportation (Caltrans). The CHP enforces hazardous materials and hazardous waste labeling and packing regulations to prevent leakage and spills of material in transit and to provide detailed information to cleanup crews in the event of an accident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are the responsibility of the CHP, which conducts regular inspections of licensed transporters to assure regulatory compliance. Caltrans has emergency chemical spill identification teams at as many as 72 locations throughout the state that can respond quickly in the event of a spill.

Common carriers are licensed by the CHP, pursuant to California Vehicle Code Section 32000. This section requires the licensing of every motor (common) carrier who transports, for a fee, in excess of 500 pounds of hazardous materials at one time, and every carrier, if not for hire, who carries more than 1,000 pounds of hazardous material of the type requiring placards.

Every hazardous waste package type used by a hazardous materials shipper must undergo tests that imitate some of the possible rigors of travel. Every package is not put through every test. However, most packages must be able to be kept under running water for a time without leaking, dropped fully loaded onto a concrete floor, compressed from both sides for a period of time, subjected to low and high pressure, and frozen and heated alternately.

Hazardous Materials Emergency Response

Pursuant to the Emergency Services Act, California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local governmental agencies and private persons. Response to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES). The OES coordinates the responses of other agencies, including the USEPA, CHP, California Department of Fish and Wildlife, the RWQCBs (in this case the LARWQCB), the local air districts (in this case, the Ventura County Air Pollution Control District), and local agencies.

Pursuant to the Business Plan Law, local agencies are required to develop “area plans” for the response to releases of hazardous materials and wastes. These emergency response plans depend to a large extent on the Business Plans submitted by people who handle hazardous materials. An area plan must include pre-emergency planning and procedures for emergency response, notification, and coordination of affected governmental agencies and responsible parties, training, and follow up.

Utility Notification Requirements

Title 8, Section 1541 of the CCR requires excavators to determine the approximate locations of subsurface installations such as sewer, telephone, fuel, electric, and water lines (or any other subsurface installations that may reasonably be encountered during excavation work) prior to conducting an excavation. The California Government Code (§4216 et seq.) requires owners and operators of underground utilities to become members of and participate in a regional notification center. According to Section 4216.1, operators of subsurface installations who are members of, participate in, and share in the costs of a regional notification center are in compliance with this section of the code. Underground Services Alert of Southern California (known as DigAlert)

receives planned excavation reports from public and private excavators and transmits those reports to all participating members of DigAlert that may have underground facilities at the location of excavation. Members will mark or stake their facilities, provide information, or give clearance to dig.

Fire Protection

The California Public Resources Code includes fire safety regulations that apply to state responsibility areas during the time of year designated as having hazardous fire conditions. During the fire hazard season, these regulations: restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors[3] on equipment that has an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire-suppression equipment that must be provided on-site for various types of work in fire-prone areas. Additional codes require that any person who owns, controls, operates, or maintains any electrical transmission or distribution line must maintain a firebreak clearing around and adjacent to any pole, tower, and conductors that carry electric current as specified in Sections 4292 and 4293.

Local

CPUC General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project or alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to hazards and hazardous materials that would otherwise be relevant to the Proposed Project and alternatives are described below.

Ventura County Environmental Health Division

The Ventura County Department of Environmental Health, Environmental Services Division, is responsible for ensuring conformance with state laws and county ordinances pertaining to food protection, hazardous materials, hazardous waste, individual sewage disposal systems, land use, medical waste, ocean water quality monitoring, recreational health, solid waste, underground fuel tanks, and vector control programs. This department also administers the Leaking Underground Fuel Tank (LUFT) Program, which regulates soil and groundwater cases involving releases from USTs that contain gasoline, diesel, waste oil, and other petroleum hydrocarbons within the County. The primary objectives of the LUFT Program are to protect groundwater supplies, public health, and the environment from petroleum products leaked from USTs. These objectives are accomplished by implementing state and federal laws and regulations. The County of Ventura has entered into a contract with the SWRCB to be the lead agency that regulates cleanup of unauthorized releases from USTs within Ventura County.

The Ventura County Department of Environmental Health, Environmental Services Division also serves as the CUPA, to assist with hazardous materials emergency response, investigation of illegal disposal of hazardous waste, and public complaints.

[3] A spark arrestor is a device that prohibits exhaust gases from an internal combustion engine from passing through the impeller blades where they could cause a spark. A carbon trap commonly is used to retain carbon particles from the exhaust.

Ventura County General Plan

The Ventura County General Plan contains goals and policies pertaining to hazardous materials and wildfires. Goal 2.13.1 addresses fire hazards by encouraging development in high fire hazard areas to be designed and constructed in a manner that minimizes the risk from fire hazards. Goal 2.15.1 minimizes the risk of loss of life, injury, serious illness, damage to property, and economic and social dislocations resulting from the use, transport, treatment, and disposal of hazardous materials and hazardous wastes, and encourages locating potentially hazardous facilities and operations in areas that would not expose the public to a significant risk of injury, loss of life, or property damage. The following policies are associated with Goal 2.15.2 (Ventura County, 2013):

> *Policy 1:* Hazardous wastes and hazardous materials shall be managed in such a way that waste reduction through alternative technology is the first priority, followed by recycling and on-site treatment, with disposal as the last resort.
>
> *Policy 2:* Site plans for discretionary development that will generate hazardous wastes or utilize hazardous materials shall include details on hazardous waste reduction, recycling and storage.
>
> *Policy 3:* Any business that handles a *hazardous material* shall establish a plan for emergency response to a release or threatened release of a hazardous material. The County Fire Protection District is designated as the agency responsible for implementation of this policy.
>
> *Policy 4:* Applicants shall provide a statement indicating the presence of any hazardous wastes on a site, prior to development. The applicant must demonstrate that the waste site is properly closed, or will be closed before the project is inaugurated.
>
> *Policy 5:* Commercial or industrial uses which generate, store, or handle hazardous waste and/or hazardous materials shall be located in compliance with the County Hazardous Waste Management Plan's siting criteria.

City of Moorpark General Plan

The City of Moorpark General Plan Safety Element contains goals and policies that reduce the potential for risk of death, injuries, property damage, and economic and social dislocation that could result from natural and man-made hazards (City of Moorpark, 2001). There are no hazards and hazardous materials goals or policies that would be applicable to the Proposed Project.

City of Thousand Oaks General Plan

The City of Thousand Oaks General Plan Safety Element protects life, property, and the environment from releases of hazardous materials in addition to protection from other hazards, including fire. Related policies include waste reduction, implementing the Countywide Emergency Response Plan, and ensuring proper disposal of household hazardous waste (City of Thousand Oaks, 2014).

The City of Thousand Oaks Emergency Operations Plan provides emergency guidelines for responding to disasters. It provides protocols for different emergency situations and outlines specific agency responsibilities and mutual aid agreements with nearby jurisdictions. Safety Element Goal 2.5.1 is to provide for preparation and implementation of persons and property

within the City in the event of a disaster, and to coordinate disaster functions with other public agencies and affected persons and property. Related policies include periodically updating the City Emergency Operation Plan, providing on-going disaster training for City employees, and evaluating emergency power generation supplies.

5.9.2 Significance Criteria

According to Appendix G of the CEQA *Guidelines*, a project would result in significant hazards and hazardous materials effects on the environment if it would:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

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

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

5.9.3 Applicant Proposed Measures

SCE has identified no applicant proposed measures (APMs) for reducing impacts associated with hazards or hazardous materials.

5.9.4 Impacts and Mitigation Measures

Approach to Analysis

Hazards and hazardous materials impacts could result from fluids used in construction equipment, from materials used and or stored at the construction sites, from encountering unexpected contaminated soil during construction, and from wildfires. Impact thresholds are discussed below

as defined by CEQA. Mitigation measures are recommended to ensure that all potentially significant impacts are reduced to less than significant.

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Impact 5.9-1: Construction would require the use of hazardous materials that could pose a potential hazard to the public or the environment if improperly used or inadvertently released. *Less than significant with mitigation* (Class II)

As discussed in Chapter 3, *Project Description*, SCE's helicopter contractor may need to refuel the helicopter during construction at designated helicopter landing zones, which could potentially result in a spill at a landing zone. Construction would also require the use of limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, and oils to maintain vehicles and motorized equipment. Accidental spill of any of these substances could occur during handling and transfer from one container to another and could impact water and/or groundwater quality. Depending on the relative hazard of the material, an accidental spill could pose a hazard to construction workers, the public, and environment. Implementation of the SWPPP would reduce that chance of spill and would have provisions to contain spills to avoid contamination of water bodies and groundwater. For further information regarding the SWPPP, refer to Section 5.10, *Hydrology and Water Quality*. As described in Section 3.6.5, *Vehicle Maintenance and Refueling*, an absorbent mat would be laid on the ground below the helicopter fuel tank port to catch any inadvertent spills or drips. Implementation of Mitigation Measures 5.9-1a through 5.9-1d (see below) would also be required to ensure that this potentially significant impact would be reduced to a less-than-significant level.

Pursuant to APM WET-1: Worker Environmental Awareness Training, prior to construction, all construction workers would receive training according to the Worker Environmental Awareness Plan (WEAP). Among other things, the WEAP would provide instructions for implementation of the Proposed Project SWPPP. Mitigation Measure 5.9-1e would also be required to ensure that the WEAP would include training on site-specific physical conditions to improve hazard prevention and include a review of the Health and Safety Plan and the Hazardous Substance Control and Emergency Response Plan. Implementation of the SWPPP and WEAP, and all the associated best management practices, and Mitigation Measures 5.9-1a through 5.9-1e would ensure that this impact would be reduced to a less-than-significant level.

> **Mitigation Measure 5.9-1a:** SCE and/or its contractors shall implement construction best management practices including but not limited to the following:
>
> - Follow manufacturer's recommendations on use, storage, and disposal of chemical products used in construction;
> - Avoid overtopping construction equipment fuel gas tanks;
> - Use tarps and adsorbent pads under vehicles when refueling to contain and capture any spilled fuel;

- During routine maintenance of construction equipment, properly contain and remove grease and oils; and
- Properly dispose of discarded containers of fuels and other chemicals.

Mitigation Measure 5.9-1b: SCE shall prepare a Hazardous Substance Control and Emergency Response Plan (Plan) and implement it during construction to ensure compliance with all applicable federal, state, and local laws and guidelines regarding the handling of hazardous materials. The Plan shall prescribe hazardous material handling procedures to reduce the potential for a spill during construction, or exposure of the workers or public to hazardous materials. The Plan shall also include a discussion of appropriate response actions in the event that hazardous materials are released or encountered during excavation activities. The Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities.

Mitigation Measure 5.9-1c: SCE shall prepare and implement a Health and Safety Plan to ensure the health and safety of construction workers and the public during construction. The plan shall include information on the appropriate personal protective equipment to be used during construction.

Mitigation Measure 5.9-1d: SCE shall ensure that oil-absorbent material, tarps, and storage drums shall be used to contain and control any minor releases. Emergency spill supplies and equipment shall be kept at the project staging area and adjacent to all areas of work, and shall be clearly marked. Detailed information for responding to accidental spills and for handling any resulting hazardous materials shall be provided in the project's Hazardous Substance Control and Emergency Response Plan (see Mitigation Measure 5.9-1b), which shall be implemented during construction.

Mitigation Measure 5.9-1e: SCE shall ensure that the Workers Environmental Awareness Plan includes training on site-specific physical conditions to improve hazard materials release prevention and include a review of the Health and Safety Plan and the Hazardous Substance Control and Emergency Response Plan. The CPUC mitigation monitor shall attend the first program. SCE shall submit documentation to the CPUC prior to the commencement of construction activities that each worker on the project has undergone this training program.

Significance after mitigation: Less than significant.

Impact 5.9-2: Operation and maintenance would require the use of hazardous materials that could pose a potential hazard to the public or the environment if improperly used or inadvertently released. *Less than significant* (Class III)

Operation and maintenance of the Proposed Project may require the limited use of certain materials such as fuels, oils, solvents, and other chemical products that could pose a potential hazard to the public or the environment during routine transport, use, or disposal. Normal operation of the 66 kV subtransmission lines would be controlled remotely through SCE control systems, and manually in the field as required. During operation and maintenance of the Proposed Project, vehicles and equipment used for routine inspections and emergency repair would require

the use of fuel and lubricants. Routine maintenance activities would include washing or replacing insulators, repairing or replacing other hardware components, tree trimming, and brush and weed control. While the Proposed Project would not require long-term operational use, storage, treatment, disposal, or transport of significant quantities of hazardous materials, hazardous materials would be used during maintenance activities.

Hazardous materials needed for maintenance activities would be stored and used in accordance with the product specifications and applicable regulations. Product specifications are described in detail on Material Safety Data Sheets (MSDS), which accompany every batch of materials considered to be hazardous. Information in the MSDS includes instructions on proper use and application of the material, accidental release measures, and handling and storage requirements. Applicable regulations specify storage and handling requirements such as proper container types and usage methods.

Applicable regulations under Caltrans and the CHP regulate the transportation of hazardous materials and wastes, including container types and packaging requirements as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. All transport of hazardous materials would be in compliance with applicable laws, rules, and regulations, including the acquisition of required shipping papers, package marking, labeling, transport vehicle placarding, training, and registrations. This impact would be less than significant.

Mitigation: None required.

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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.

Impact 5.9-3: Construction activities could release previously unidentified hazardous materials in the environment. *Less than significant with mitigation* (Class II)

In addition to the use of hazardous materials, the Proposed Project would entail ground-disturbing activities that could expose or unearth soil or groundwater contamination in the vicinity of the Proposed Project. The regulatory agency database search conducted for the Proposed Project identified two hazardous materials release sites within 0.5-mile of the Proposed Project site. The Smith Pumps Site is identified as having contaminated soil and is located at 1299 Lawrence Drive in Newbury Park, approximately 0.2 mile east of the proposed alignment. Soil contamination does not extend off-site and therefore this site would not impact construction activities associated with the Proposed Project. The second site, the Northrop Aircraft Division Site is identified as having groundwater contamination and is located at1515 Rancho Conejo Boulevard in the City of Thousand Oaks. This site is not anticipated to impact the Proposed Project as the contamination does not extend offsite and the Proposed Project is located approximately 0.4 mile to the east. The potential for the Proposed Project to encounter soil or groundwater contamination associated with these sites is very low and this impact would be less than significant.

While data obtained from the Proposed Project records searches indicate that no contamination has been identified along the proposed alignment, several nearby hazardous material sites have been identified. Contamination that may be associated with these sites may have migrated and could be uncovered or encountered during construction. There is also a potential that there could have been undocumented releases of hazardous materials (e.g., petroleum hydrocarbons from underground storage tanks, polychlorinated biphenyls (PCBs) from transformers) along the proposed alignments and sites that could have migrated and could be uncovered or encountered during construction.

Implementation of Mitigation Measure 5.9-3 would ensure that potential impacts associated with releasing previously unidentified hazardous materials into the environment would be less than significant by outlining steps to take in the event of encountering previously unidentified hazardous materials. Impacts would be less than significant with mitigation. For impact discussions related to water quality, refer to Section 5.10, *Hydrology and Water Quality*.

Additionally, during construction activities the potential exists that subsurface utilities (e.g., a natural gas line) or structures (e.g., an UST) might be encountered and damaged, resulting in a release of a hazardous material. The potential for such incidents would be reduced by thoroughly screening for subsurface structures in areas prior to commencement of any subsurface work. Screening activities would include use of DigAlert (Underground Services Alert of Southern California), visual observations, hand digging, and use of buried line locating equipment.

> **Mitigation Measure 5.9-3:** SCE's Hazardous Substance Control and Emergency Response Plan (Mitigation Measure 5.9-1b) shall include provisions that would be implemented if any subsurface hazardous materials are encountered during construction. Provisions outlined in the plan shall include immediately stopping work in the contaminated area and contacting appropriate resource agencies, including the CPUC designated monitor, upon discovery of subsurface hazardous materials. The plan shall include the phone numbers of county and state agencies and primary, secondary, and final cleanup procedures. The Hazardous Substance Control and Emergency Response Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities.

Significance after mitigation: Less than significant.

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c) Produce hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

Impact 5.9-4: Construction activities could release hazardous materials within the vicinity of an existing school. *Less than significant* (Class III)

There are three schools located within 0.25 mile of Segment 4 of the proposed subtransmission line and/or Newbury Substation. Hazardous emissions resulting from construction of the Proposed Project would include the temporary and short-term generation of diesel particulate matter (DPM) emissions from the use of off-road diesel equipment and from construction material deliveries and debris hauling using on-road heavy-duty trucks. The majority of Proposed Project DPM emissions

would be associated with subtransmission line construction, which would proceed at a linear pace and would not be expected to expose any one receptor along the Proposed Project alignment for longer than 2 weeks. Because the total emissions and duration of exposure at any one sensitive receptor location would be relatively minor compared to the 70-year exposure used in health risk assessments, the health risk from the short-term DPM emissions that would be associated with construction of the Proposed Project would be negligible, and this impact would be less than significant.

In addition to hazardous emissions, minor spills of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, could occur during construction; however, such spills would be limited in volume and would not migrate off-site. This impact would be less than significant (Class III).

Mitigation: None required.

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d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment. (No Impact)

Based on regulatory database searches conducted for the Proposed Project (see Section 5.9.1, *Setting*), the Proposed Project sites are not identified on any lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and therefore construction of the Proposed Project would not create a significant hazard to the public or the environment (No Impact).

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e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the Proposed Project area. (No Impact)

No general aviation airports are located within 2 miles of the Proposed Project. The closest airport is Camarillo Airport, located approximately 7 miles from the Proposed Project; therefore, no impact would occur (No Impact).

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f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

Impact 5.9-5: The Proposed Project could result in a safety hazard for people working in the Proposed Project area because a nearby private helipad. *Less than significant* (Class III)

As discussed in the setting, there are no private airstrips located within 2 miles of the Proposed Project; however, there are two helipads located within 2 miles, including one at SCE's Moorpark

Substation. The next closest helipad is the RI Science Center Helistop, located 1.3 miles east of Segment 4 in the City of Thousand Oaks. Proposed Project activities in the vicinity of the Moorpark Substation helipad would entail installing the new 66 kV subtransmission line underground within the substation and on existing TSPs in Segment 2. While the new conductor could potentially present a hazard to aviation, the new 66 kV subtransmission line and associated TSPs would be constructed adjacent to the existing Moorpark-Ormond Beach 220 kV lines. The existing lines and associated poles are taller than those associated with the Proposed Project; therefore, the new poles and conductor associated with the Proposed Project are unlikely to pose a significant new aviation hazard. Further, the Moorpark Substation helipad is owned and operated by SCE and all employees would be aware of the proposed conductor installation. In Segment 4, the new conductor would be collocated with the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line on previously installed lightweight steel (LWS) poles and would not pose a new hazard to aviation.

As part of the Proposed Project, marker balls may be required by FAA to be installed on several of the subtransmission line spans. In Segment 2, marker balls may be installed on the conductor between poles 25 and 26, and between poles 27 and 28. In Segment 3, marker balls may be installed on the conductor between poles 32 and 33, and poles 39 and 40. Marker balls would increase the visibility of the new lines and as required by the FAA. This impact would be less than significant.

Mitigation: None required.

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g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Impact 5.9-5: Construction of the Proposed Project could interfere with an emergency response or evacuation plan. *Less than significant* (Class III)

Construction of the Proposed Project could impact area roadways. However, as discussed in Chapter 3, *Project Description*, all construction at the substations would be within the fence lines of the facilities. Activities and construction vehicles at the substations would not reduce the width of access roads or driveways, or block roads or driveways, and thus would not impair emergency access to substations.

Construction activities associated with the subtransmission lines in Segments 2 and 3 may require temporary closure of travel lanes on public roadways, private roads, and driveways, and would involve the movement of oversized vehicles that could affect emergency vehicle access to and through the Proposed Project construction areas. However, as discussed in Section 5.17, *Traffic and Transportation*, pursuant to APM TRA-1, SCE would implement recommendations contained in the California Joint Utility Traffic Control Manual (CJUTCM), including use of signage, flaggers, and coordination with relevant agencies and emergency responders. Vehicle movements along, and use of, access roads would be communicated to and coordinated with the appropriate agencies as necessary. Equipment placed on equipment pad/turnaround areas and drill pads would be situated or

attended to facilitate adequate emergency vehicle access. Implementation of these measures would provide for efficient and safe transit of emergency vehicles through construction areas. SCE would also obtain the appropriate permits from the local jurisdictions, Union Pacific Railroad, and Caltrans, as applicable, for construction activities that would encroach upon any public ROW or easement. Therefore, the impact would be less than significant.

Mitigation: None required.

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h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Impact 5.9-6: Construction-related activities could ignite dry vegetation and start a fire. ***Less than significant with mitigation*** **(Class II)**

The majority of the Proposed Project would be located in high fire hazard zones. Heat or sparks from construction vehicles and equipment would have the potential to ignite dry vegetation and cause a fire, particularly during the dry season. Therefore, depending on the time of year and location of construction activities, this could be a potentially significant impact.

SCE has standard protocols that are implemented when the National Weather Service issues a "Red Flag Warning," which is a warning that conditions (e.g., strong wind, low humidity, warm temperatures) favor explosive fire growth potential. These protocols include measures to address smoking and fire rules, storage and parking areas, use of gasoline-powered tools, use of spark arresters on construction equipment, road closures, use of a fire guard, fire suppression tools, fire suppression equipment, and training requirements. However, to ensure that potentially significant wildland fire impacts associated with the Proposed Project are reduced to less than significant, implementation of Mitigation Measure 5.9-6 would require the preparation of a Health and Safety/Fire Safety Plan and appropriate fire protection equipment.

> **Mitigation Measure 5.9-6:** SCE and/or its contractors shall prepare and implement a Health and Safety/Fire Safety Plan to ensure the health and safety of construction workers and the public. The Ventura County Fire Department (VCFD) shall be consulted during plan preparation and include health and safety/fire safety measures recommended by this agency. The plan shall list fire prevention procedures and specific emergency response and evacuation measures that would be required to be followed during emergency situations. The plan shall include, but not be limited to, the following:
>
> - SCE and/or its contractors shall have water tanks and/or water trucks sited/available in the Proposed Project area for fire protection.
> - All construction vehicles shall have fire suppression equipment.
> - All construction workers shall receive training on the proper use of fire-fighting equipment and procedures to be followed in the event of a fire.

- As construction may occur simultaneously at several locations, each construction site shall be equipped with fire extinguishers and fire-fighting equipment sufficient to extinguish small fires.
- Construction personnel shall be required to park vehicles away from dry vegetation.
- Prior to construction, SCE shall contact and coordinate with the VCFD to determine the appropriate amounts of fire equipment to be carried on the vehicles and appropriate locations for the water tanks if water trucks are not used. SCE shall submit verification of its consultation with CalFire and the local fire departments to the CPUC.
- The plan shall be submitted to CPUC staff for approval prior to commencement of construction activities and shall be distributed to all construction crew members prior to construction of the Proposed Project.

Significance after mitigation: Less than significant.

Impact 5.9-7: Operation of the subtransmission lines could increase the probability of a wildfire. *Less than significant* (Class III)

During operations, the Proposed Project could increase the risk of wildland fires in the area. Electrical lines can start a fire if an object, such as a tree limb, kite, Mylar balloon, etc., simultaneously contacts the subtransmission line conductors and a second object, such as the ground or a portion of the supporting pole; if two conductors make contact; or if dust and/or dirt builds up on insulators such that a conductive path to a portion of the tower is created. To minimize the risk of trees falling on the subtransmission line or other accidental ignition of a wildland fire from the subtransmission line, SCE would follow State vegetation and tree clearing requirements, including CPUC General Order 95, PRC Section 4293.

Given proper ROW management, arcing between conductor phases is more likely than between a conductor and the ground. System component failures and accidents during maintenance activities can also cause line faults that result in arcing on subtransmission lines. Distribution and subtransmission lines are also subject to conductor-to-conductor contact, which can occur when extremely high winds force two conductors on a single pole to oscillate so excessively that they contact one another. This contact can result in arcing (sparks) that can ignite nearby vegetation.

Both distribution and transmission systems are designed to withstand high winds, and it is extremely rare for higher-voltage transmission structures to blow over. When this rare event does occur, the protection system on a subtransmission line is designed to shut off power flow in a fraction of a second. However, a fraction of a second can be enough for an energized conductor to cause sparks and ignite nearby vegetation. Distribution structure failures are also infrequent but due to their placement in narrower corridors in close proximity to trees and other tall vegetation they may be pushed down in storms by wind-blown trees.

The risk of ignitions and the risk of damage from a Proposed Project-related ignition are low, and as mentioned above, SCE would be required to implement state vegetation and tree clearing requirements, including CPUC General Order 95, PRC Section 4293. Also, SCE would inspect all components of the proposed subtransmission line at least annually for corrosion, equipment misalignment, loose fittings, and other common mechanical problems. Consequently, implementation of the Proposed Project would not result in a significant risk of loss, injury, or death involving wildland fires; therefore, operational impacts would be less than significant.

Mitigation: None required.

5.9.5 Alternatives

No Project Alternative 1

Because the baseline conditions would remain in their current state under No Project Alternative 1, there would be no impacts with respect to hazards and hazardous materials (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. This alternative would have similar impacts compared to the Proposed Project because construction activities associated with removing project components installed in 2010 and 2011 would be similar to those described under the Proposed Project. Similar to construction of the Proposed Project, removal activities would require the use of fuels (primarily gasoline and diesel) for operation of construction equipment (e.g., dozers, excavators, and trenchers), construction vehicles (e.g., dump and delivery trucks), and construction worker vehicles. Impacts resulting from a potential release of hazardous materials would be the same as those described for construction of the Proposed Project under Impact 5.9-1, and would be less than significant with implementation of Mitigation Measures 5.9-1a through 5.9-1e (Impact 5.9-1) and Mitigation Measure 5.9-3 (Impact 5.9-3). Construction activities would occur in high fire hazard zones; however, there would be less potential to start a fire under this alternative given the limited amount of activities that would occur in high fire zone compared to the Proposed Project (Impact 5.9-6). Nevertheless, Mitigation Measure 5.9-6 would be required to reduce impacts to less than significant. In sum, No Project alternative would result in hazards and hazardous materials-related impact that would be less than significant with mitigation incorporated regarding criteria a), b), and h) (Class II); less than significant regarding criteria c), f), and g) (Class III); and there would be no impact regarding criteria d) and e) (No Impact).

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5.10 Hydrology and Water Quality

This section discusses the existing environmental and regulatory setting of the Proposed Project and alternatives, identifies potential impacts related to construction, operation, and maintenance of the Proposed Project and alternatives, and proposes mitigation measures for those impacts determined to be significant. Setting information presented in this section was compiled from the Proponent's Environmental Assessment (PEA) (SCE, 2013), resource agency websites and databases, and Geographic Information System (GIS) data.

5.10.1 Setting

Environmental Setting

Regional Setting and Climate

The Proposed Project is approximately 9 miles in length and traverses portions of the City of Moorpark, unincorporated areas of Ventura County, and the City of Thousand Oaks (see Figure 3-1, *Proposed Project Segments and Substations*). The Proposed Project lies entirely within the Calleguas Creek watershed, and is located in a region characterized by an east/west-trending sequence of ridges and valleys within the Ventura Basin, between the Santa Ynez and the Santa Monica mountains (USACE, 2003). The Proposed Project alignment is located generally north of the Santa Monica Mountains and begins on the northern slopes of the Conejo Valley, continues north over the Camarillo Hills, across the Santa Rosa Valley, and over the Las Posas Hills to Moorpark Substation on the northern side of Little Simi Valley. The Proposed Project crosses over lands primarily in agricultural use (orchards), sparse rural development, and undeveloped open space.

The Calleguas Creek watershed is characterized by a temperate, Mediterranean climate regime, with mild temperatures and little variation in temperature extremes. The summers are typically long and dry, with rain seldom occurring in May through August, and the winters are generally short and wet (VCWPD, 2003). Nearly all precipitation occurs during the months of December through March. Mean annual precipitation is between 12 inches on the Oxnard Plain to 21 inches in the higher elevations (SCE, 2013). Major winter storms generally originate over the Pacific Ocean and often last several days, and are accompanied by heavy precipitation (VCWPD, 2003). Dry periods can be considerable and may extend over many months, or even years (USACE, 2003). Snow rarely occurs within the Calleguas Creek watershed.

Surface Water Hydrology

The Calleguas Creek watershed covers 343 square miles of land from the Los Angeles County Line on the east to Mugu Lagoon on the west, and from the Santa Monica Mountains on the south to Oak Ridge in the north. The watershed is an elongated area with a maximum east-west length of 32 miles and a maximum north-south width of 14 miles. Elevations within the watershed range from 3,700 feet in the upper watershed to sea level at the outlet to the Pacific Ocean at Mugu Lagoon (USACE, 2003). Approximately half of the drainage area is mountainous, with steep

rocky ridges and numerous canyons. The remaining half consists of rolling hills with well-defined stream courses and relatively flat valley areas. The surface waters are primarily arroyos and creeks that have historically carried storm flows and post-storm flows from the upper watershed down to the alluvial valleys and the southeastern portion of the Oxnard Plain (SCE, 2013). Numerous small tributaries draining the mountainous portions of the watershed flow into Calleguas Creek in the upper two-thirds of the watershed. Conejo Creek and Revolon Slough, two major tributaries, enter Calleguas Creek in the lower one-third of the watershed. Calleguas Creek is also known as Arroyo Las Posas and Arroyo Simi in the middle and upper reaches respectively. Extensive urban development, farmland conversion, and the development of orchards on steep slopes have altered the geomorphology of the watershed area and have led to accelerated erosion rates. Water now flows from Calleguas Creek into Mugu Lagoon year round due to urban runoff and discharges from waste water treatment plants. However, the volume and peak of this flow are negligible compared to runoff generated during storm events (USACE, 2003).

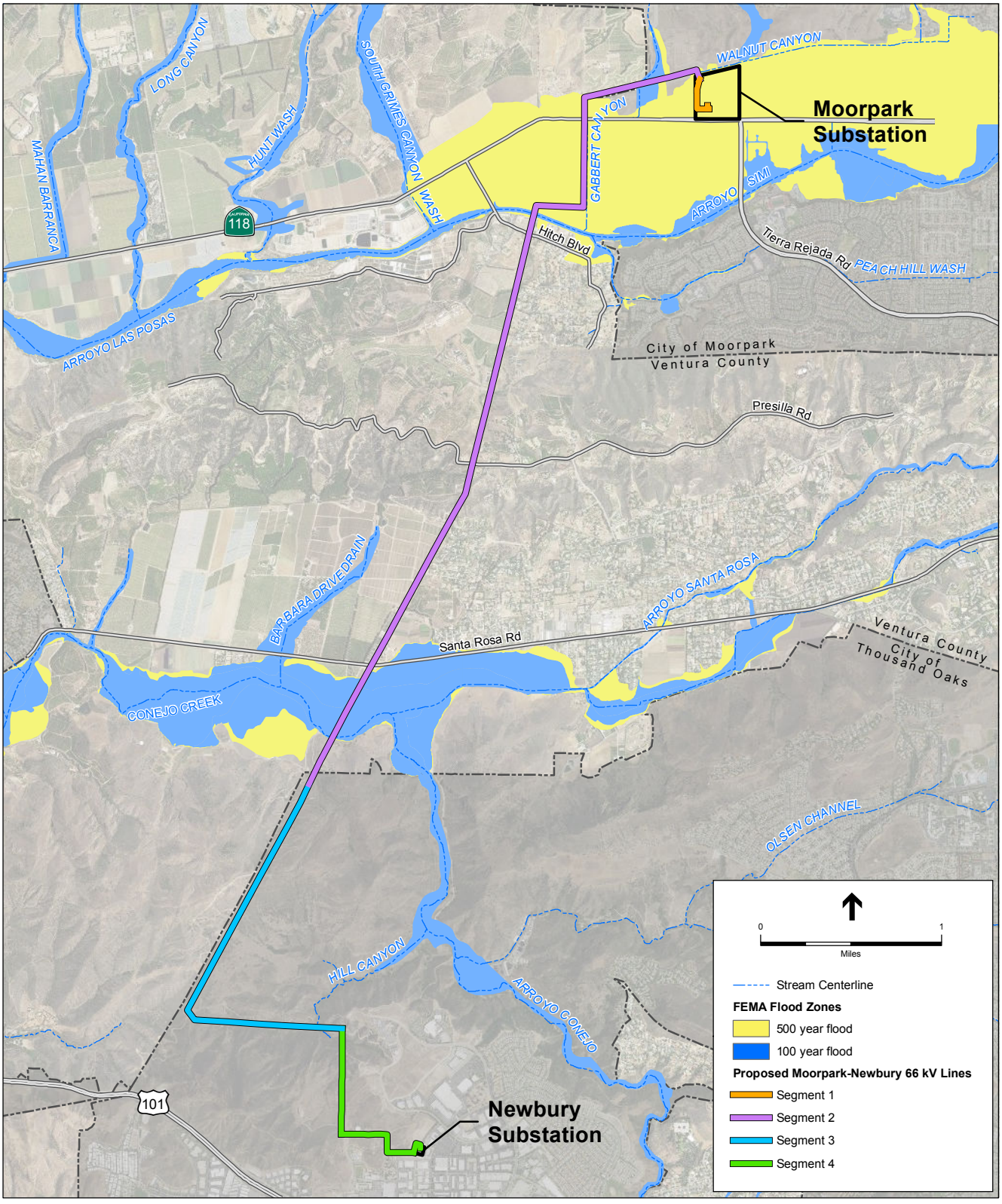
Runoff within the watershed from storm events occurs during and immediately following rainfall. Stream flow increases rapidly in response to effective rainfall. Undeveloped areas of the Calleguas Creek watershed comprise approximately 39 percent of the total area where some of the rainfall is intercepted by vegetation and evaporates, and some percolates into the ground resulting in relatively minor amounts of storm runoff except in very large storms (VCWPD, 2003). High intensity rainfall, in combination with the effects of sparse vegetation, possible denudation by fire, and steep gradients in the upper watershed, result in intense, sometimes sediment laden floods. These high-velocity flows generally produce channel scouring on unimproved channel reaches. Deposition of the sediment being transported in storm flow occurs in lower Calleguas Creek as stream gradients become less steep (USACE, 2003).

Urbanization within valley areas tends to make the watershed more responsive to rainfall in these locations. Runoff from urban areas in the watershed is characterized by high flood peaks of short duration that result from high-intensity rainfall on areas with a high percentage of impervious cover. Rainfall occurring over an urbanized area of the watershed will typically generate higher peak discharges with a shorter peak time and a greater total volume than the natural watershed lands (USACE, 2003). The major surface water channels of the Calleguas Creek watershed that are proximate to the Proposed Project area, and that are also under the jurisdiction of the Ventura County Watershed Protection District (VCWPD), are shown in **Figure 5.10-1**, *FEMA Flood Zones and Surface Hydrology in the Proposed Project Vicinity.*

Major surface water channels in the Proposed Project vicinity include the upstream reaches of Calleguas Creek (Arroyo Las Posas and Arroyo Simi), Conejo Creek (including its upper reaches, Arroyo Conejo and Hill Canyon Creek), and Arroyo Santa Rosa. Proposed Project Segment 2 crosses Arroyo Las Posas and Conejo Creek, and Segment 3 crosses the uppermost portion of Hill Canyon Creek (within upper Arroyo Conejo drainage area).

Surface Water Quality

The Los Angeles Regional Water Quality Control Board (LARWQCB) is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial



SOURCE: SCE, 2013; VCWPD, 2012; FEMA, 2010

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.10-1

FEMA Flood Zones and Surface Hydrology in the Proposed Project Vicinity

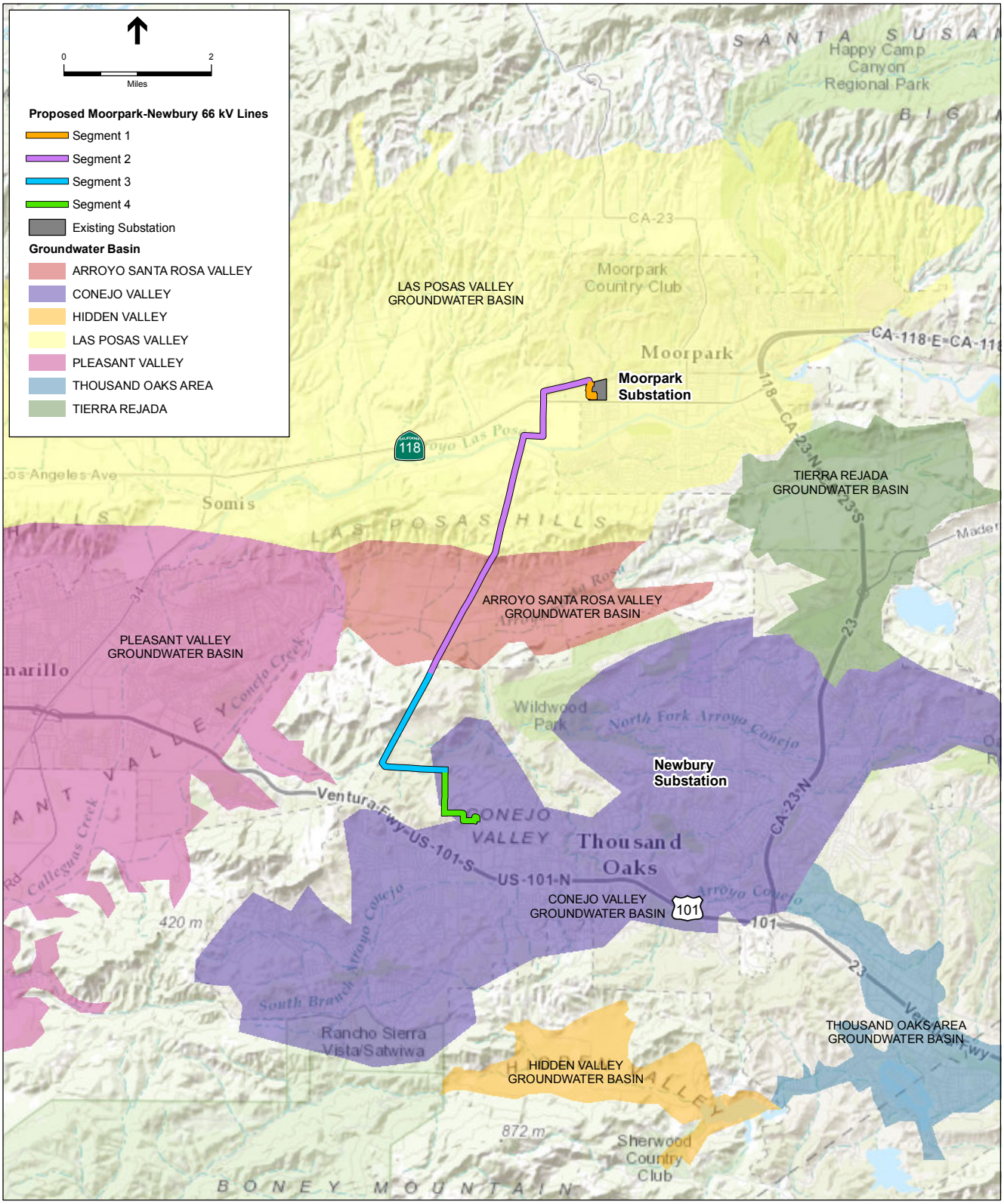
uses within major portions of Los Angeles and Ventura Counties, including the Calleguas Creek watershed. A large portion of the surface waters within the watershed are impaired by one or more water quality constituents. A major portion of this degradation appears to be from nonpoint sources. Nonpoint source pollutants, typically of diffuse origin, can be mobilized and transported to receiving water bodies in sudden pulses and large quantities by storm and irrigation flows within the watershed. Possible sources of nonpoint source pollution include over-application of nitrogen fertilizers and irrigation water, sedimentation and the leaching of salts, pesticides, and herbicides. The use of excessive irrigation water or the effect of precipitation hitting bare ground increases erosion, sediment transport and levels of total dissolved solids. Excessive irrigation also causes soil constituents and minerals to leach out of the soil. This has been cited as one of the causes for the high levels of sodium, calcium, magnesium, and sulfate found within the watershed (CCWMP, 2004).

Applicable water quality standards are identified within the *Water Quality Control Plan Los Angeles Region* (Basin Plan) (LARWQCB, 1995). Water quality is assessed on a biannual basis and impairments are listed on the State of California List of Impaired Water Quality Segments (i.e., the 303(d) list). The Regulatory Setting (below) lists water quality objectives for pollutants appearing on the 303(d) list of impaired water bodies in the Calleguas Creek watershed for surface waters within the vicinity of the Proposed Project. According to the 303(d) List, approximately 344 acres of Mugu Lagoon and approximately 118 miles of streams within the Calleguas, Conejo, and Revolon Slough system are impaired for water quality (CCWMP, 2004). The majority of these listings (64) occur within the Historic Pesticides/PCBs category, followed by Salts, Nutrients, Toxicity, Sedimentation, Bacteria, Metals, Trash, and Organophosphate Pesticides. In addition, the preparation of a chloride Total Maximum Daily Load (TMDL) in the Calleguas Creek watershed required the quantification of salt sources, among which was salts imported with water and urban uses such as water softeners. Studies have indicated that in most urbanized areas, urban storm water runoff is one of the most significant sources of water pollution (CCWMP, 2004).

Groundwater Hydrology and Groundwater Quality

The Calleguas Creek watershed includes several groundwater basins (CCWMP, 2004), three of which underlie the Proposed Project area and alignment: the Las Posas Valley Groundwater Basin (Las Posas Basin), the Arroyo Santa Rosa Valley Groundwater Basin (Arroyo Santa Rosa Basin), and the Conejo Valley Groundwater Basin (Conejo Basin) (see **Figure 5.10-2**, *Groundwater Basins in the Proposed Project Vicinity*). Groundwater in the region is used primarily for agricultural and urban supply, particularly in drought years. In general, these aquifers are bounded by impermeable rock and/or faulting and comprised of alluvial valley fill, and most have upper and lower water-bearing zones separated by distinct layers or deposits. Aquifers range from large, extensive alluvial valleys with thick, multilayered aquifers and aquitards, to small inland valleys and coastal terraces. The characteristics of each groundwater basin within the project area are described below.

Groundwater recharge areas within the Calleguas Creek watershed are identified within the Calleguas Creek Watershed Management Plan (CCWMP) (CCWMP, 2004). The recharge areas



SOURCE: SCE, 2014; DWR, 2003

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.10-2

Groundwater Basins in the Proposed Project Vicinity

identified occur in certain aquifer outcrop areas and on various reaches of individual streams. The amount of recharge is predicated on the depth and width of the underlying stream channel deposits, the nature of the geologic materials comprising the stream channel deposits, the depth and nature of the geologic materials underlying the stream channel deposits, the depth to groundwater, and the quantity and timing of water flowing into the streams (CCWMP, 2004). The Proposed Project is not located within one of the identified significant groundwater recharge areas of the Calleguas Creek watershed (CCWMP, 2004).

Las Posas Valley Groundwater Basin

Proposed Project Segment 1, including Moorpark Substation, and a portion of Segment 2 overlie the Las Posas Basin. This groundwater basin comprises most of the Los Posas Valley, and is bounded on the south by the City of Camarillo and the Los Posas Hills, on the north by South Mountain and Oak Ridge, on the east by the Santa Susana Mountains, and on the west by the Oxnard sub-basin of the Santa Clara River Valley Groundwater Basin (DWR, 2006a). Water-bearing materials in this basin include alluvium, the San Pablo Foundation, and the Santa Barbara Foundation. Productive aquifers in the basin include an unconfined upper aquifer and two confined aquifers in the lower zones of the basin. Groundwater recharge is mainly through percolation of precipitation. Groundwater storage capacity in this basin is estimated at approximately 345,000 acre feet. In October 1999, the basin was estimated to be approximately 50 to 65 percent full (DWR, 2006a). Groundwater within this basin is calcium bicarbonate in character. Well sampling and monitoring shows that the basin groundwater is generally high in total dissolved solids (TDS) content, routinely exceeding 700 milligrams per liter (mg/L). The upper water bearing unit is approximately 25 to 50 feet below ground surface and the lower is at approximately 350 to 500 feet deep. Generally, the deeper wells tend to have better water quality than those completed in the upper zones; however, that has changed some over the years (VCWPD, 2013a).

Arroyo Santa Rosa Valley Groundwater Basin

A portion of Proposed Project Segment 2 overlies the Arroyo Santa Rosa Basin. This basin comprises the Arroyo Santa Rosa Valley and is bounded to the north by Santa Rosa fault, to the south and east by the Santa Monica Mountains, and to the west by the Pleasant Valley Groundwater Basin. The major hydrologic features in this basin include Arroyo Santa Rosa and Conejo Creek, which drain surface waters to the Pacific Ocean. Water-bearing materials within the basin include alluvium and the San Pedro Formation; depth to water-bearing alluvium is approximately 50 feet (VCWPD, 2013a). Groundwater within the basin is generally unconfined. Groundwater within this basin is generally high in sulfates, TDS, and nitrates (DWR, 2006b; VCWPD, 2013a). The Arroyo Santa Rosa Basin has a large area dedicated to agricultural use and a high number of individual septic systems, which are two main sources of nitrate to the groundwater (VCWPD, 2013a).

Conejo Valley Groundwater Basin

The Newbury Substation and portions of Proposed Project Segments 3 and 4 overlie the Conejo Basin. This groundwater basin includes most of the Conejo Valley. The primary water-bearing

units in the basin are Quaternary alluvium and the Modelo, Topanga, and Conejo Formations. Groundwater in the basin is generally unconfined and flows westward. Recharge to the basin is provided by percolation of rainfall to the valley floor, percolation of surface water from Conejo Creek and its tributaries, and irrigation return. Depth to groundwater averages about 50 feet (VCWPD, 2013a).

Flooding

Flooding within the Proposed Project area (e.g., near the cities of Moorpark and Thousand Oaks) is controlled primarily by Arroyo Las Posas/Arroyo Simi and Conejo Creek. Historically, flood flows in the Calleguas Creek watershed were able to leave the highlands and spread across the Oxnard Plain, lose energy, and deposit sediment, which in turn created the rich agricultural lands in that area. Presently, much of the Oxnard floodplain is used for year-round agricultural activities and significant portions of Calleguas Creek have been channelized to convey larger flows more efficiently and rapidly. Flood management in the Calleguas Creek watershed is administered by the VCWPD. Activities administered by the VCWPD include land use planning and channel maintenance (County of Ventura, 2008). Development in the Calleguas Creek watershed has increased peak flows in these channels, resulting in semi-regular flood events. The Federal Emergency Management Agency (FEMA) is responsible for mapping areas subject to flooding during a 100-year flood event (i.e., one percent chance of occurring in a given year). The Ventura County flood zones mapped by FEMA in the Proposed Project area are illustrated in Figure 5.10-1. Proposed Project Segments 1 and 2 would traverse a 500-year flood hazard zone in the Moorpark area and Segment 2 would cross a 100-year flood hazard zone south of Santa Rosa Road.

Regulatory Setting

Federal

The statutes that govern the activities of the Proposed Project that may affect water quality are the federal Clean Water Act (CWA) (33 U.S.C. §1251) and the Porter-Cologne Water Quality Control Act (Porter-Cologne) (Water Code, §13000 et seq.). These acts provide the basis for water quality regulation in the Proposed Project area.

The California Legislature has assigned the primary responsibility to administer and enforce statutes for the protection and enhancement of water quality to the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs). The SWRCB provides state-level coordination of the water quality control program by establishing statewide policies and plans for the implementation of state and federal regulations. The nine RWQCBs throughout California adopt and implement water quality control plans that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems. The RWQCB adopts and implements a Water Quality Control Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed

through the plan (California Water Code, §13240-13247). The Proposed Project area is located within the jurisdiction of the LARWQCB.

Beneficial Use and Water Quality Objectives (CWA §303)

The LARWQCB is responsible for the protection of the beneficial uses of waters within the coastal watersheds of Ventura County and Los Angeles County. The LARWQCB uses its planning, permitting, and enforcement authority to meet this responsibility and has adopted the Basin Plan to implement plans, policies, and provisions for water quality management.

In accordance with state policy for water quality control, the LARWQCB employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Basin Plan has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. The existing and beneficial uses designated in the Basin Plan for the surface water bodies in or adjacent to the Proposed Project area are identified in **Table 5.10-1**. The existing uses of groundwater in the vicinity of the Proposed Project area (i.e., Las Posas Valley, Arroyo Santa Rosa Valley, and Conejo Valley groundwater basins) include: municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PROC) (LARWQCB, 1995). The Basin Plan also includes water quality objectives that are protective of the identified beneficial uses; the beneficial uses and water quality objectives collectively make-up the water quality standards for the region. **Table 5.10-2**, *Selected Water Quality Objectives***,** presents selected, quantitative surface water and groundwater quality objectives relevant to the Proposed Project area.

TABLE 5.10-1
BENEFICIAL USES OF WATER BODIES AT THE PROPOSED PROJECT SITES AND SURROUNDING AREAS

Surface Water Body	Existing Beneficial Uses
Arroyo Simi	IND*, GWR*, FRSH*, REC1*, REC2*, WARM*, WILD, RARE
Arroyo Las Posas	GWR, FRSH, REC1, REC2, WARM, WILD
Arroyo Conejo	GWR*, FRSH*, REC1*, REC2*, WARM*, WILD, RARE
Conejo Creek	IND, PROC, AGR, GWR, REC1, REC2, WARM, WILD

NOTES:

Beneficial Uses Key:
IND (Industrial Service Supply); AGR (Agricultural Supply); REC-1 (Body Contact Recreation); REC-2 (Noncontact Recreation); WARM (Warm Freshwater Habitat); WILD (Wildlife Habitat); GWR (Groundwater Recharge); RARE (Preservation of Rare and Endangered Species); PROC (Industrial Process Water Supply); FRSH (Freshwater Replenishment).

* intermittent beneficial use.

SOURCE: LARWQCB, 1995

TABLE 5.10-2
SELECTED WATER QUALITY OBJECTIVES

Watershed/Water Body	Water Quality Objectives (mg/L)				
	TDS	Sulfate	Chloride	Boron[b]	Nitrogen[c]
Calleguas Creek above Potrero Rd	850	250	150	1.0	10, 45
Groundwater Basins					
Las Posas Valley[a]	2500	1200	400	3.0	10,45
Arroyo Santa Rosa Valley	900	300	150	1.0	10, 45
Conejo Valley	800	250	150	1.0	10, 45

NOTES: mg/L = milligrams per liter; TDS = total dissolved solids;

[a] South Las Posas area (aast of Grimes Canyon Road and Hitch Blvd).
[b] Where naturally occurring boron results in concentrations higher than the stated objective, a site-specific objective may be determined.
[c] The 10 mg/L objective is for nitrate-nitrogen plus nitrite-nitrogen (NO_3-N + NO_2-N), the 45 mg/L objective is for NO_3. The groundwater and surface water objectives are the same.

SOURCE: LARWQCB, 1995

The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the nation's waters." Under CWA Section 303(d), the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. The state has listed Arroyo Santa Rosa and Conejo Creek as impaired water bodies. **Table 5.10-3,** *Water Quality Limited Segments in the Proposed Project Area***,** presents the 2006 CWA Section 303(d) list of water quality limited segments in the Proposed Project area and the applicable pollutants/stressors. California is required to establish TMDL for each pollutant/stressor. A TMDL defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. TMDLs have already been approved and are being implemented for a number of the pollutants/stressors listed in **Table 5.10-3**, *Water Quality Limited Segments in the Proposed Project Area.*

TABLE 5.10-3
WATER QUALITY LIMITED SEGMENTS IN THE PROPOSED PROJECT AREA

Water Body	Pollutant/Stressor
Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and 2 on 1998 303d list)	*Ammonia, *chlordane, chloride, *chlorpyrifos, *DDT (sediment), *diazinon, *dieldrin, fecal coliform, *nitrate, sedimentation, sulfates, total dissolved solids, *toxicity.
Calleguas Creek Reach 11 (Arroyo Santa Rosa, was part of Conejo Creek Reach 3 on 1998 303d list)	*Ammonia, ChemA, *chlordane, *DDT (tissue), *dieldrin, endosulfan (tissue), algae growth, fecal coliform, *PCBs, sedimentation, sulfates, total dissolved solids, *toxaphene (tissue and sediment), *toxicity.

* Being addressed by an approved TMDL.

SOURCE: LARWQCB, 2006

Water Quality Certification (CWA §401)

Section 401 of the CWA requires that an applicant for any federal permit (e.g., a United States Army Corps of Engineers [USACE] §404 permit) obtain certification from the state that the discharge would comply with other provisions of the CWA and with state water quality standards. For example, an applicant for a permit under Section 404 of the CWA must also obtain water quality certification per Section 401 of the CWA. Section 404 of the CWA requires a permit from the USACE prior to discharging dredged or fill material into waters of the United States, unless such a discharge is exempt from CWA Section 404.[1] For the Proposed Project area, the LARWQCB must provide the water quality certification required under Section 401 of the CWA. Water quality certification under Section 401 of the CWA, and the associated requirements and terms, is required in order to minimize or eliminate the potential water quality impacts associated with the action(s) requiring a federal permit. There were no wetlands identified in the study area and it is unlikely that the Proposed Project would need a federal permit related to jurisdictional channels or wetlands (see Section 5.4, *Biological Resources*).

National Pollutant Discharge Elimination System (NPDES) Program (CWA §402)

The CWA was amended in 1972 to make the discharge of pollutants to waters of the United States from any point source unlawful unless the discharge is in compliance with a National NPDES permit. The 1987 amendments to the CWA added Section 402(p), which establishes a framework for regulating municipal and industrial *storm water* discharges under the NPDES Program. In November 1990, the United States Environmental Protection Agency (USEPA) published final regulations that also establish storm water permit application requirements for discharges of storm water to waters of the United States from construction projects that encompass 5 or more acres of soil disturbance. Regulations (Phase II Rule) that became final on December 8, 1999, expanded the existing NPDES Program to address storm water discharges from construction sites that disturb land equal to or greater than 1.0 acre and less than 5.0 acres (small construction activity). The regulations also require that storm water discharges from small municipal separate storm sewer systems (MS4s) be regulated by an NPDES permit.

Ventura County MS4 Permit (LARWQCB Order R4-2010-0108). Within the purview of the MS4 permit requirements, the VCWPD, County of Ventura, and the cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, San Buenaventura, Santa Paula, Simi Valley, and Thousand Oaks have formed the Ventura Countywide Stormwater Quality Management Program and are named as co-permittees under a revised municipal NPDES permit for storm water discharges issued by the LARWQCB (Order R4-2010-0108; Ventura County MS4 Permit).[2] Under the Ventura County MS4 Permit, the co-permittees are required to administer, implement, and enforce a Storm Water Quality Management Program (SQMP) to reduce pollutants in urban runoff. The *Ventura County Technical Guidance Manual for Stormwater Quality Control Measures* (Ventura County TGM; 2011) provides guidance for the implementation of storm water

[1] The term "waters of the United States" as defined in the Code of Federal Regulations (40 CFR 230.3[s]) includes all navigable waters and their tributaries.

[2] LARWQCB Order R4-2010-0108, NPDES Permit No. CAS004002, Waste Discharge Requirements for Storm Water (Wet Weather) and Non-Storm Water (Dry Weather) Discharges from the Municipal Separate Storm Sewer Systems within the VCWPD, County of Ventura, and the Incorporated Cities Therein.

management control measures. The Ventura County TGM has been developed to meet the Planning and Land Development requirements contained in the Ventura County MS4 Permit for new development and redevelopment projects and to facilitate successful implementation of the SQMP.

According to the definition of new development projects, the Proposed Project is unlikely to be subject to the requirements and standards set forth in the Ventura County MS4 Permit and within the guidelines (County of Ventura, 2011). According to the Ventura County MS4 Permit, new development projects include all development projects equal to 1.0 acre or greater of disturbed area that add more than 10,000 square feet of impervious surface area. The Proposed Project would add a negligible amount of impervious surface from the installation of 14 tubular steel pole (TSP) foundations.

Construction General Permit (SWRCB Order 2009-09-DWQ). For storm water discharges associated with construction activity in the State of California, the SWRCB has adopted the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (SWRCB Order 2009-0009-DWQ; Construction General Permit) in order to avoid and minimize water quality impacts attributable to such activities.[3] The Construction General Permit applies to all projects where construction activity disturbs 1.0 or more acre of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which would include and specify best management practices (BMPs) designed to prevent pollutants from contacting storm water and keep all products of erosion from moving off-site into receiving waters. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. In addition, the SWPPP must contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

For the Proposed Project area, the Construction General Permit would be implemented and enforced by the LARWQCB. Dischargers are required to submit a Notice of Intent (NOI) in order to, at the discretion of the SWRCB and the LARWQCB, obtain coverage under the Construction General Permit. Dischargers are responsible for notifying the relevant RWQCB of violations or incidents of non-compliance, as well as for submitting annual reports identifying deficiencies of the BMPs and how the deficiencies were corrected.

The Construction General Permit requires a risk-based permitting approach, dependent upon the likely level of risk imparted by a project. To ensure compliance and protection of water quality, the permit implements monitoring, reporting, and training requirements for management of potential storm water pollutants. The permit contains several compliance items, including: (1) mandatory BMPs to reduce erosion and sedimentation, which may include incorporation of

[3] SWRCB Order 2009-0009-DWQ (as amended by SWRCB Order 2010-0014-DWQ), NPDES Permit No. CAS000002, General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities.

vegetated swales, setbacks and buffers, rooftop and impervious surface disconnection, bioretention cells, rain gardens, rain cisterns, implementation of pollution/sediment/spill control plans, training, and other structural and non-structural actions; (2) sampling and monitoring for non-visible pollutants; (3) effluent monitoring and annual compliance reports; (4) development and adherence to a Rain Event Action Plan; (5) requirements for the post-construction period; (6) numeric action levels and effluent limits for pH and turbidity; (7) monitoring of soil characteristics on-site; and (8) mandatory training under a specific curriculum.

The Proposed Project would disturb more than 1.0 acre of soil and would thus be subject to the provisions and requirements of the General Construction Permit. Southern California Edison (SCE) would submit an NOI to the SWRCB and obtain coverage under, and comply with, the General Construction Permit. As summarized previously, the preparation of a SWPPP would be required in accordance with the General Construction Permit. The SWPPP would include, but not be limited to, relevant measures, conditions, and obligations which would reduce or eliminate the impacts of construction activities on storm water and receiving water quality and quantity. Further, a sediment monitoring plan would be required as part of the SWPPP for the Proposed Project because of the relevant, sediment-impaired reaches (LARWQCB, 2006) described above.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act (codified in the California Water Code, §13000 *et seq*.) is the basic water quality control law for California. As mentioned above, it is implemented by the SWRCB and the nine RWQCBs. The SWRCB establishes statewide policy for water quality control and provides oversight of the RWQCBs' operations. In addition to other regulatory responsibilities, the RWQCBs have the authority to conduct, order, and oversee investigation and cleanup where discharges or threatened discharges of waste to waters of the state[4] could cause pollution or nuisance, including impacts to public health and the environment. Evident from the preceding regulatory discussion, the Porter-Cologne Act and the CWA overlap in many respects, as the entities established by the Porter-Cologne Act are in many cases enforcing and implementing federal laws and policies. However, there are some regulatory tools that are unique to the Porter-Cologne Act.

Dredge/Fill Activities and Waste Discharge Requirements

Actions that involve, or are expected to involve, discharge of waste are subject to water quality certification under Section 401 of the CWA (e.g., if a federal permit is being sought or granted) and/or waste discharge requirements (WDRs) under the Porter-Cologne Act. Chapter 4, Article 4 of the Porter-Cologne Act (California Water Code, §13260-13274), states that persons discharging or proposing to discharge waste that could affect the quality of waters of the state (other than into a community sewer system) shall file a Report of Waste Discharge with the applicable RWQCB. For discharges directly to surface water (waters of the United States) an NPDES permit is required, which is issued under both state and federal law. For other types of discharges, such as waste discharges to land (e.g., spoils disposal and storage), erosion from soil disturbance, or discharges to waters of the state (such as isolated wetlands), WDRs are required and are issued exclusively

[4] "Waters of the state" are defined in the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code, § 13050 (e).)

under state law. WDRs typically require many of the same BMPs and pollution control technologies as required by NPDES-derived permits. Further, the WDR application process is generally the same as for CWA Section 401 water quality certification, though in this case it does not matter whether the particular project is subject to federal regulation.

General WDRs for Discharges to Land with a Low Threat to Water Quality. In SWRCB Order 2003-0003-DWQ, the SWRCB adopted General Waste Discharge Requirements (General WDRs) for discharges to land that are considered to be a low threat to water quality and are of low volume with minimal pollutant concentrations (SWRCB, 2003). All WDRs must implement the Basin Plan and require dischargers (e.g., SCE) to comply with all applicable Basin Plan provisions and water quality objectives. The General WDRs establish minimum standards and monitoring requirements with respect to a few specific categories of discharge, including boring waste discharge, small dewatering projects (e.g., temporary dewatering during construction excavation activity), and miscellaneous discharges such as small, inert solid waste disposal operations.

The Proposed Project may require temporary dewatering during TSP foundation installation. Any dewatering activity that would discharge to the land surface would need to comply with the provisions of these General WDRs (or, alternatively, SCE or its contractor would need to obtain an individual WDR). Accordingly, to obtain coverage under these General WDRs and ensure compliance with the Basin Plan, SCE or its contractor would submit the following to the LARWQCB: an NOI to comply with these General WDRs, a Proposed Project map, evidence of California Environmental Quality Act (CEQA) compliance, the requisite fee, a discharge monitoring plan (DMP), and any additional information requested by the LARWQCB.[5] As described above, locally high concentrations of TDS and nitrate within groundwater are likely to preclude the option of directing dewatering discharges to surface waters. RWQCB staff would determine whether or not coverage under the General WDRs is appropriate and, if so, would notify SCE by letter of coverage. In the event of any conflict between the provisions of the General WDRs and the Basin Plan, the more stringent provision would prevail.

WDRs for Construction Dewatering Discharges to Surface Water. In June of 2008, the LARWQCB adopted Order R4-2008-0032, which regulates discharges to surface waters of treated or untreated groundwater from dewatering operations, including those related to construction excavation, and other waste waters (LARWQCB, 2008). As stated previously, the Proposed Project may require dewatering during TSP installation, and any dewatering activity that would discharge to surface waters would need to comply with the provisions of these WDRs (or, alternatively, SCE or its contractor would need to obtain individual WDRs).

To be covered under this order, a discharger must demonstrate that pollutant concentrations in the discharge would not violate any applicable water quality objectives or exceed water quality criteria for specific toxic pollutants (and that there would be no reasonable potential to cause or

[5] Further details concerning the requirements for coverage under these General WDRs, such as the necessary contents of a DMP, can be found in the SWRCB Order implementing these General WDRs (SWRCB Order 2003-0003-DWQ; see LARWQCB, 2008).

contribute to an excursion above the criteria),[6] perform a reasonable potential analysis using a representative sample of the groundwater to be discharged, and, if necessary, design and implement a treatment system for the water to be discharged. To obtain discharge authorization under this order, SCE or its contractor would submit an NOI to the Executive Officer of the LARWQCB (Executive Officer), obtain and analyze a representative sample of the groundwater to be discharged, and, upon request, submit any additional information deemed necessary by the Executive Officer. Among other things as described in the order, the NOI should include a demonstration of direct hydrologic connection and similar water chemistry between the groundwater and the receiving surface water(s), a description of BMPs for preventing degradation of water quality, and a description of the treatment system (if necessary).

Upon receipt of a completed application (e.g., NOI, requisite sampling and assessment), the Executive Officer would determine the applicability of this order to the Proposed Project and the intended discharge. If the discharge is eligible, the Executive Officer would notify SCE or its contractor that the proposed discharge is authorized under the terms and conditions of this order and prescribe an appropriate monitoring and reporting program.

Executive Order 11988

Under Executive Order 11988, FEMA is responsible for management of floodplain areas defined as the lowland and relatively flat areas adjoining inland and coastal waters subject to a 100-year floodplain. FEMA requires that local governments covered by federal flood insurance pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year floodplain.

County and Local Plans, Policies, and Regulations

Per California Public Utilities Commission (CPUC)-adopted General Order (GO) 131-D, local jurisdictions are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to CPUC's jurisdiction, but in locating such projects, the public utilities shall consult with local agencies regarding land use matters. As such, the following local regulations are included for informational purposes only.

Ventura County General Plan

For information purposes, the following goals and policies identified in the Ventura County General Plan were considered to inform the significance determination related to the protection of water resources and minimization of flood hazards in the study area (County of Ventura, 2013):

> **Water Resources**
>
> *Goal 1*: Inventory and monitor the quantity and quality of the County's water resources.
>
> *Goal 2*: Effectively manage the water resources of the County by adequately planning for the development, conservation and protection of water resources for present and future generations.

[6] Specific toxic pollutants are identified in Attachment A, Attachment B, and Part V of LARWQCB Order R4-2008-0032 (LARWQCB, 2008).

Goal 3: Maintain and, where feasible, restore the chemical, physical and biological integrity of surface and groundwater resources.

Goal 4: Ensure that the demand for water does not exceed available water resources.

Goal 5: Protect and, where feasible, enhance watersheds and aquifer recharge areas.

Policy 1: Discretionary development which is inconsistent with the goals and policies of the County's Water Management Plan (WMP) shall be prohibited, unless overriding considerations are cited by the decision-making body.

Policy 2: Discretionary development shall comply with all applicable County and State water regulations.

Policy 3: The installation of on-site septic systems shall meet all applicable State and County regulations.

Policy 4: Discretionary development shall not significantly impact the quantity or quality of water resources within watersheds, groundwater recharge areas or groundwater basins.

Flood Hazards

Goal 1: Minimize the risk of loss of life, injury, damage to property, and economic and social dislocations resulting from flood hazards.

Goal 2: Design and construct appropriate surface drainage and flood control facilities as funding permits.

Goal 3: Prevent incompatible land uses and development within floodplains.

Goal 4: Prohibit residential development within the regulatory floodway.

Policy 1: Land use in the regulatory floodway should be limited to open space, agriculture, or passive to low intensity recreational uses, subject to the approval of the County Public Works Agency. The floodway's principal use is for safely conveying floodwater away from people and property.

Policy 2: Within areas subject to flooding as determined by the Federal Emergency Management Agency on the latest available Digital Flood Insurance Rate Maps (DFIRMs), the County shall require the recordation of a Notice of Flood Hazard or dedication of a flowage easement with the County Recorder for all divisions of land and discretionary permits.

Policy 3: Development proposed within the floodplain shall be designed and built to standards intended to mitigate to the extent possible the impacts from the one percent annual chance storm.

Policy 4: The design of any structures which are constructed in floodplain areas as depicted on the County Hazards Protection Maps, shall be governed by Federal regulations, specifically Title 44 Code of Federal Regulations Sections 59 through 70, as well as the County Floodplain Management Ordinance (discussed below) and shall incorporate measures to reduce flood damage to the structure and to eliminate any increased potential flood hazard in the general area due to such construction.

Ventura County Watershed Protection District

The Proposed Project is located within the VCWPD jurisdiction. The VCWPD was formed in 1944 to provide for the "control and conservation of flood and storm waters and for the protection of watercourses, watersheds, public highways, life, and property in the district from damage or destruction from these waters" (VCWPD, 2014).

The VCWPD's authority over its jurisdictional channels is established through a number of ordinances and policies passed by its Board of Supervisors. The primary ordinance establishing VCWPD authority and the requirement to obtain permits for any encroachment into VCWPD jurisdictional channels, including rights-of-way (ROWs), is Ventura County Watershed Protection Ordinance WP-2, *An Ordinance Relating to the Protection and Regulation of Flood Control Facilities and Watercourses* (VCWPD, 2014). Specifically, without first obtaining a permit, ordinance WP-2 (VCWPD, 2013b) states that no person shall:

- Impair, divert, impede, or alter the characteristics of the flow of water running in any jurisdictional red line channel, or establish any new drainage connection to a VCWPD jurisdictional channel (where applicable, watercourse or Encroachment Permit applications must be submitted to the District for any proposed work); or

- Construct or place any structure in, upon, or across a watercourse.

Segments of the Proposed Project would cross a few delineated watercourses (see Figure 5.10-1 *FEMA Flood Zones and Surface Hydrology in the Proposed Project Vicinity*); however, only the subtransmission conductor would actually cross or span the watercourses, and these are unlikely to be considered "structures" in the context of this ordinance.

The VCWPD also implements flood hazard and flood management ordinances. The primary ordinance establishing the VCWPD's authority and requirements to obtain permits for encroachments in jurisdictional waters and ROWs is Ventura County Ordinance FC-18. Ordinance FC-18 relates to protection and regulation of flood control facilities and watercourses. This ordinance has been amended by FC-19 through FC-23 and FC-27. Additionally, the VCWPD implements the Flood Plain Management Ordinance 3841 on behalf of the County of Ventura to ensure compliance with FEMA regulations. This includes all proposed residential and non-residential development within the 1 percent annual chance base flood area (100-year floodplain). The Proposed Project includes routing subtransmission source lines through parts of 100-year floodplain areas; therefore, some of the FEMA regulations would be applicable.

City of Thousand Oaks General Plan

For information purposes, the following Conservation Element policies and implementation measures identified in the City of Thousand Oaks General Plan were considered to inform the significance determination related to the protection of water resources and water quality in the study area (City of Thousand Oaks, 2013):

Streams and Creeks Policies

- Streams and creeks should be protected as open space and maintained in as natural a state as possible, and appropriate measures taken to manage urban runoff, in order to protect the City's and other downstream communities' water quality, wildlife diversity, native vegetation, and aesthetic value. This will contribute to the regional effort to improve the quality of Calleguas Creek, Malibu Creek and Mugu Lagoon.

- Use of concrete for flood control improvements in natural drainage courses should occur only when no reasonable alternatives can be found that would maintain natural hydrological and ecological functions.

Streams and Creeks Implementation Measures

- All development projects should be reviewed to ensure protection of streams and creeks onsite, as long as there is no threat to public safety.

- All new developments and redevelopment of built areas shall comply with standards adopted by the City for minimizing storm water pollution, excess runoff, and siltation.

- Erosion and pollution from construction sites will be reduced as the City implements NPDES standards for construction sites.

- Continue monitoring and enforcement of pollution standards for existing commercial and industrial uses, pursuant to the countywide NPDES permit, to reduce storm water pollution.

- Continue public outreach and education programs to help reduce stormwater pollution.

- Any development proposed over, under, adjacent, or within the boundaries of a VCWPD jurisdictional red line channel shall obtain a permit from the District prior to any site disturbance.

Floodplains Policy

- Protect remaining floodplains in order to help retain stormwater runoff from tributary watersheds and reduce the potential for erosion and periodic flooding within downstream reaches of the Arroyo Conejo and Calleguas Creek.

Floodplains Implementation Measures

- Natural floodplains have been acquired and conserved as open space with limited recreational uses that are compatible with public safety considerations. Any remaining undeveloped areas within a 100-year flood plain should also be considered for open space or recreational use.

- Existing developed floodplains located immediately adjacent to floodplains in the unincorporated areas of Ventura County should be coordinated with the Ventura County Floodplain Manager to ensure no adverse or cumulative impacts within the unincorporated area.

City of Thousand Oaks Municipal Code

For information purposes, the following provisions contained in the City of Thousand Oaks municipal code pertain to flood damage prevention (City of Thousand Oaks, 1988):

> ***Title 4, Public Safety, Chapter 7 – Flood Damage Prevention***
>
> Provisions for flood hazard reduction are established in §4.7.05. This section includes standards for construction for residential, non-residential, and utilities development. Section 4.7.06 outlines variance procedures for floodplain regulations. Sections 4.7.10, 4.7-11, and 4.7-12 establish additional standards.

City of Moorpark General Plan

For information purposes, the following goal and policy identified in the City of Moorpark General Plan were considered to inform the significance determination related to the protection of water resources and water quality in the study area (City of Moorpark, 1986):

> *Goal 4:* Preserve and maintain the physical and biological environment from future growth-related degradation. In those areas where degradation is inevitable, ensure the restoration of affected areas.
>
> *Policy 4.2:* Conserve and protect water quality supplies through cooperative efforts with the Ventura County Water Conservation Plan and any future regional water quality and water supply plans and programs that may be instrumental in reducing water quality-related problems.

5.10.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant hydrology and water quality effects on the environment if it would:

a) Violate any water quality standards or waste discharge requirements;

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);

c) Substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;

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

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

f) Otherwise substantially degrade water quality;

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or

j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

5.10.3 Applicant Proposed Measures

No applicant proposed measures (APMs) have been identified by SCE to reduce Proposed Project impacts on hydrology and water quality.

5.10.4 Impacts and Mitigation Measures

Approach to Analysis

Reconnaissance field investigations were conducted and regional and site-specific technical documents were reviewed to identify hydrology and water quality resources that could be affected by the Proposed Project. Potential impacts on hydrologic resources and water quality during construction, operations, and maintenance were determined and evaluated with respect to identified hydrologic features.

a) Violate any water quality standards or waste discharge requirements.

f) Otherwise substantially degrade water quality.

Impact 5.10-1: Construction, operation, and maintenance activities could result in increased erosion and sedimentation and/or pollutant (e.g., fuels and lubricants) loading to surface waters, which could increase turbidity, suspended solids, settleable solids, or otherwise degrade water quality. *Less than significant with mitigation* (Class II)

Construction activities associated with the Proposed Project could increase the turbidity or otherwise degrade the water quality of receiving stream channels or other surface waterways. Activities that disturb the ground near or within a stream channel (e.g., clearing and grading) could make soils and sediments more susceptible to erosion by altering their existing structure or state. Depending on the distance and ground slope, some portion of the eroded material could eventually be delivered to a receiving stream channel or other type of waterway over a relatively short time period (e.g., during the next rain event). In this case, increased erosion rates would likely lead to increased sediment concentrations and turbidity levels in the receiving stream channel and have a potentially adverse impact on the beneficial uses identified by the LARWQCB (1995). Further, moderate increases in surface runoff from construction areas could initiate or exacerbate an erosion and sediment delivery problem. An increase in the runoff rate

from a construction area may result from temporarily decreasing ground surface resistance to overland flow (e.g., clearing of native vegetation or slope grading), decreasing the infiltration capacity of the soil by means of compaction (e.g., with heavy equipment), or by increasing the velocity of runoff (e.g., concentrating flow into manmade features or into existing rills or gullies). In addition, if construction equipment or workers inadvertently release pollutants (e.g., hydraulic fluid or petroleum) on-site, these compounds could be entrained by runoff and discharged into receiving channel(s) causing water quality degradation. The extent of erosion or pollution that could occur at any given construction site varies depending on soil type, vegetation/cover, and weather conditions.

Construction of the Proposed Project would require only short-term (i.e., within a single season) construction activities, and thus the associated potential impacts would be short-lived in nature. Actions associated with the Proposed Project that would include notable construction and land-disturbing components include trenching; surface modifications to rehabilitate existing access and spur roads; the rehabilitation of conductor stringing sites; and the installation of guard locations (all other Proposed Project components would utilize previously disturbed areas). Specific construction activities referenced under this potential impact include, but are not limited to, clearing and grading, excavation work, and the stockpiling of soil and/or sediments.

The Proposed Project would be required to adhere to a number of federal and state water quality provisions. These provisions would serve to minimize or eliminate the potential water quality impacts associated with the construction activities, and some of the operational activities and features, described above. As summarized in Chapter 3, *Project Description*, SCE would need to acquire the Construction General Permit from the LARWQCB in order to carry out the proposed construction activities. SCE would be required to submit an NOI to the SWRCB in order to obtain approval to carry-out construction activities under the General Construction Permit. This permit would include a number of design, management, and monitoring requirements for the protection of water quality and the reduction of construction and phase impacts related to storm water (and some non-storm water) discharges. Permit requirements would include the preparation of a SWPPP, implementation and monitoring of BMPs, implementation of best available technology for toxic and non-conventional pollutants, implementation of best conventional technology for conventional pollutants, and periodic submittal of performance summaries and reports to the LARWQCB. The SWPPP would apply to the Proposed Project as a whole and would include reference to major construction areas as appropriate. Also, SCE would contact the LARWQCB and file a Report of Waste Discharge; the LARWQCB would then determine whether an issuance or a waiver of WDRs is necessary considering the permits already required for the Proposed Project.

Construction, operation, and maintenance of the Proposed Project would require the limited use of hazardous materials; all hazardous materials would be stored, handled, and used in accordance with the applicable regulations. The SWPPP would provide detail on locations where hazardous materials may be stored during construction, and the protective measures, notifications, and cleanup requirements for any accidental spills or other releases of hazardous materials that could occur.

Throughout the construction and operation phases of the Proposed Project, access to the 66 kV subtransmission lines would be achieved through the use of approximately 21 miles of existing dirt access roads and existing spur roads that are accessible from paved public and private roads. Prior to construction, some segments of the existing access and spur roads would require improvement or rehabilitation, such as light grading and vegetation removal, to facilitate the safe movement of construction vehicles and personnel. In general, unpaved roads commonly lead to increases in the volume of surface runoff as well as increases in erosion and sediment delivery. This is attributable to the fact that roads tend to intercept and elongate overland flow paths, substantially reduce the infiltration capacity of soils, and disturb the existing soil structure, making the soil more susceptible to erosion and entrainment by runoff. Further, as discussed in Section 5.7*, Geology and Soils*, some of the soils within the Proposed Project area have a moderate to severe erosion hazard associated with them, according to classifications by the Natural Resources Conservation Service (NRCS). The beneficial uses of the surface water channels within the Proposed Project area could be adversely affected by temporary increases in erosion and delivery of sediment from the improvement or rehabilitation (e.g., clearing) of existing roads that may currently have notable vegetation coverage and/or have developed gullies.

The existing measures required of SCE (e.g., the Construction General Permit, water quality certification, and/or WDR) would reduce potential construction-related water quality impacts, but are not necessarily sufficient to reduce potential impacts from improving or rehabilitating roads for access purposes to a less-than-significant level. Mitigation Measure 4.10-1 would be required to specifically address the potential water quality impacts associated with proposed road work. [7]

> **Mitigation Measure 5.10-1:** For all improved or rehabilitated access roads that would be within 300 feet of an existing surface water channel (i.e., one that has a distinct bed and banks, including irrigation ditches where no berm/levee is currently in place) and traverse a ground slope greater than two percent, the following protective measures shall be adhered to and/or installed:
>
> - All access roads shall be out-sloped;
> - Cross-drains (road surface drainage, e.g., waterbars, rolling dips, or channel drains) shall be installed at intervals based upon the finished road slope: road slope 5 percent or less, cross-drain spacing shall be 150 feet; road slope 6 to 15 percent, cross-drain spacing shall be 100 feet; 16 to 20 percent, cross-drain spacing shall be 75 feet; and 21 to 25 percent, cross-drain spacing shall be 50 feet; and
> - Energy dissipation features (e.g., rock rip-rap, rock-filled containers) shall be installed at all cross-drain outlets.

Significance after mitigation: Less than significant.

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[7] The mitigation measures for roads are based on measures and recommendations contained in the *Handbook for Forest and Ranch Roads – A Guide for Planning, Designing, Constructing, Reconstructing, Maintaining, and Closing Wildland Roads* (Weaver and Hagans, 1994).

Impact 5.10-2: Dewatering during construction activities could release previously contaminated groundwater to surface water bodies and/or increase sediment loading to local surface water channels through overland discharge and subsequent erosion, degrading water quality in receiving surface waters. *Less than significant with mitigation* (Class II)

The proposed excavations for the TSPs would be up to 46 feet deep and could encounter groundwater in select locations, in which case dewatering would be necessary. No TSP installations or excavations are proposed within the Las Posas Valley Groundwater Basin, which generally has the shallowest depths to groundwater. However, the southern portion of Segment 2 would traverses the Arroyo Santa Rosa Valley Groundwater Basin, where spring groundwater depths can range from approximately 29 to 39 feet based on measurements made over the 2011-2013 time frame (VCWPD, 2013a). Further, Segment 4 would be within the Conejo Valley Groundwater Basin, where the average depth to water is approximately 50 feet (based on all measurements, i.e., in the fall and spring; VCWPD, 2013a), though spring groundwater levels may be slightly shallower. Where the groundwater table is relatively shallow, some groundwater seepage may occur into pole excavation or auger holes, requiring dewatering on a one-time basis immediately prior to pole foundation placement and installation.

For the Proposed Project, if dewatering is required for pole placement, the water may be discharged to a sediment tank and, after adequate residence time for settling of sediments and other solids, subsequently discharged into the local storm drain or sewer system. However, as described above, locally high concentrations of TDS and nitrate within groundwater are likely within the Proposed Project area. Concentrations of TDS and nitrate in groundwater within the Proposed Project area groundwater basins have been measured at levels that exceed the water quality objectives in the Basin Plan. If not treated, discharging such water directly to a storm drain and/or surface channel would likely result in a violation of existing water quality standards contained within the Basin Plan. Thus, this would preclude the option of directing dewatering discharges to surface waters (including storm drains that discharge to surface waters).

Groundwater within the Proposed Project area could exceed surface water quality standards for some constituents (e.g., TDS), and thus all dewatering activities, when necessary, should ultimately discharge to the land surface in the vicinity of the particular installation or construction site. These discharges should be contained, such that the water is allowed to infiltrate back into the soil and the potential for inducing erosion and subsequent sediment delivery to nearby surface waterways is eliminated. Concerning such activities, SCE shall apply and comply with the provisions of SWRCB Order 2003-0003-DWQ, including development and submittal of a discharge monitoring plan.

Though the dewatering process would be temporary, yielding only a small volume of groundwater, the potential exists for such water or saturated soils to already be contaminated. Discharge (i.e., through dewatering) or displacement of contaminated water or soil, as a result of excavation related to the Proposed Project, could potentially impact the beneficial uses of surface water or groundwater identified in the Basin Plan. Mitigation Measure 5.10-2 would be required to specifically address the potential water quality impacts associated with dewatering discharge of

previously contaminated groundwater, or of groundwater which exceeds existing surface water quality criteria or objectives for one or more constituents.

Mitigation Measure 5.10-2: Regarding dewatering activities and discharges, the following measures shall be implemented as part of Proposed Project construction:

- If degraded soil or groundwater is encountered during excavation (e.g., there is an obvious sheen, odor, or unnatural color to the soil or groundwater), SCE and/or its contractor shall excavate, segregate, test, and dispose of degraded soil or groundwater in accordance with state hazardous waste disposal requirements.

- All dewatering activities shall, where feasible, discharge to the land surface in the vicinity of the particular installation or construction site. The discharges shall be contained, such that the water is allowed to infiltrate back into the soil, and eventually to the groundwater table, and the potential for inducing erosion and subsequent sediment delivery to nearby surface waterways is eliminated. Further, the holding tank or structure shall be protected from the introduction of pollutants including but not limited to oil or fuel contamination from nearby equipment. Concerning such activities, SCE shall apply and comply with the provisions of SWRCB Order 2003-0003-DWQ, including development and submittal of a discharge monitoring plan.

- If discharging to a community sewer system is feasible or necessary, SCE shall discharge to a community sewer system that flows to a wastewater treatment plant. Prior to discharging, SCE shall inform the responsible organization or municipality and present them with a description of and plan for the anticipated discharge. SCE shall comply with any specific requirements that the responsible organization or municipality may have.

- If discharging to surface waters, including to storm drains, would be necessary, SCE shall obtain and comply with the provisions of the LARWQCB Dewatering General Permit. SCE shall perform a reasonable analysis using a representative sample(s) of the groundwater to be discharged; this shall include analyzing the sample(s) for the constituents listed in the LARWQCB Dewatering General Permit, including TDS and nitrate. Further, the sample(s) shall be compared to the screening criteria listed in the LARWQCB Dewatering General Permit and the Basin Plan, and it shall be demonstrated that the discharge would not exceed any of the applicable water quality criteria or objectives. If necessary, SCE shall develop and submit to the LARWQCB a treatment plan and design.

- SCE shall provide to the CPUC proof of compliance with LARWQCB plans and permits prior to the commencement of construction activities.

Significance after mitigation: Less than significant.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). (No Impact)

During installation of subsurface structures, there is a possibility that shallow groundwater would be encountered. If dewatering should occur, it would be for a short period of time and would not affect groundwater levels in the region. The impermeable surfaces associated with the Proposed Project would be very minimal (i.e., limited to construction of 14 TSP foundations approximately 6 to 8 feet in diameter) and would not substantially interfere with groundwater recharge. As a result, construction, operation, and maintenance of the Proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (No Impact).

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

Impact 5.10-3: Construction activities could impact local drainage patterns, or the course of a given stream, resulting in substantial on- or off-site erosion or sedimentation. *Less than significant with mitigation* (Class II)

The Proposed Project, in disturbing the ground and hillsides during construction activities, may alter existing drainage pathways so as to make surface soils more susceptible to erosive forces (i.e., overland flow) and/or generate enough increased runoff through removal/clearing of existing vegetation to increase surface erosion. This potential impact is synonymous with the potential impact of construction activities upon erosion processes, sediment delivery, and water quality, and it is fully addressed in Impact 5.10-1 (above).

Mitigation: Implement Mitigation Measure 5.10-1.

Significance after mitigation: Less than significant.

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d) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. (No Impact)

The Proposed Project would not alter drainage patterns or otherwise substantially increase runoff (e.g., through installation of impervious surfaces) to the extent that a substantial increase in on- or off-site flooding would occur (No Impact).

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e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. (No Impact)

There is no potential for the Proposed Project or alternatives to impact stormwater drainage systems or provide additional sources of polluted runoff not addressed in the context of the other criteria. All potential impacts concerning runoff and erosion resulting from implementation of the Proposed Project are addressed under criteria a), c), and f) (No Impact).

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g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. (No Impact)

The Proposed Project does not involve housing within a 100-year floodplain; therefore, there are no impacts associated with placing housing within a 100-year floodplain (No Impact).

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h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows. (No Impact)

Installation of some of the Proposed Project components would occur in a 100-year flood zone; however, the poles and foundations would not alter drainage patterns and do not have a large cross section that would significantly impede flood flows. Therefore, there would be no effect related to impeding or redirecting flood flows from placing structures within a 100-year flood plain (No Impact).

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i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. (No Impact)

The Proposed Project is not located down gradient of a levee or dam. The closest dam or levee is Bard Reservoir, located in an adjacent drainage basin, and its failure would not expose people or structures associated with the Proposed Project to any risk of loss, injury, or death from flooding. Therefore, there is no impact to people or structures associated with construction, operation, or maintenance of the Proposed Project from the risk from dam or levee failure (No Impact).

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j) Expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow. (No Impact)

The Proposed Project area is not subject to seiches, tsunamis, or mudflows, and would have no impact regarding people's exposure to risk with respect to these phenomena (No Impact).

5.10.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the construction, operation, and maintenance related impacts that would result under the Proposed Project, as discussed in Section 5.10.4, would not occur. There would be no impact under No Project Alternative 1 (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. No Project Alternative 2 has the same hydrology and water quality setting as described above for the Proposed Project. Though the ground-disturbing and construction activities under the No Project Alternative 2 would be related to the removal of previously installed infrastructure, the potential construction-related impacts pertaining to ground disturbance, erosion, and/or access road rehabilitation would likely be similar to the Proposed Project (see Impacts 5.10-1 and 5.10-3, above). However, under No Project Alternative 2, there would likely be no potential impacts related to construction dewatering (see Impact 5.10-2, above). Aside from the dewatering potential impact, implementation of No Project Alternative 2 would likely warrant the same mitigation measures as those required for the Proposed Project. Therefore, depending on the condition of the access roads needed for infrastructure removal, Mitigation Measure 5.10-1 would also be required for No Project Alternative 2 and the potential impacts of this alternative to hydrologic resources and water quality would be less than significant with mitigation (Class II).

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5.11 Land Use and Planning

This section addresses potential impacts to land uses in the study area. The analysis considers potential impacts resulting from the construction, operation, and maintenance of the Proposed Project and alternatives. Land use issues include compatibility of the Proposed Project and alternatives with adjacent land uses, and potential conflicts with applicable plans and policies. This evaluation is based on review of local and regional land use plans and policies.

5.11.1 Setting

Environmental Setting

Proposed Project

The Proposed Project would be located within unincorporated Ventura County and the cities of Moorpark and Thousand Oaks. The Proposed Project would be built entirely within existing Southern California Edison (SCE) rights-of-way (ROWs), easements, and "fee-owned" property (i.e., property which is currently legally owned by SCE), and on public ROWs. Existing land uses that would occur within and adjacent to the Proposed Project area are described below, for each of the four Proposed Project segments.

Segment 1

Segment 1 is located entirely within the fence line of the Moorpark Substation at the intersection of Gabbert Road and Los Angeles Avenue in the City of Moorpark. The site is currently developed with infrastructure typical of a 220/66/16 kilovolt (kV) substation such as switchracks, foundations, duct banks, circuit breakers, transformers, a Mechanical Electrical Equipment Room (MEER), driveways, and a perimeter fence. Development surrounds the Moorpark Substation to the east and south including residences to the south, and light industrial buildings to the east. The land to the north and west of the substation is undeveloped open space.

Segment 2

Segment 2 begins at the fence line of the Moorpark Substation and terminates near the City of Thousand Oaks boundary. Segment 2 is located entirely within SCE's existing Moorpark-Ormond Beach 220 kV ROW. From the northwest corner of the Moorpark Substation, the proposed 66 kV subtransmission line would exit the substation, proceed southwest across open space and agricultural land for approximately 3,400 feet with the City of Moorpark, then would assume a southerly route near Montair Drive. The route would cross State Route (SR) 118 (Los Angeles Avenue), and continue south and west across unincorporated Ventura County traversing land used for agriculture, open space, and streambeds associated with Arroyo Simi, an unnamed tributary to Arroyo Simi, and Arroyo Santa Rosa. The agricultural uses in Segment 2 include citrus orchards, avocado orchards, and commercial plant nurseries, which are prevalent between SR 118 and Santa Rosa Road. The alignment is also located adjacent to the west of several residential communities.

Segment 3

Segment 3 extends approximately 3 miles from the southern end of Segment 2 (north of the boundary of the City of Thousand Oaks and at the northern base of the Calleguas hills), and then south and east to the northern terminus of Segment 4, approximately 0.3 mile west of the intersection of Conejo Center Drive and Rancho Conejo Boulevard. With the exception of approximately 400 feet at its northern end, all of Segment 3 is located in open space lands managed by Conejo Open Space Conservation Agency (COSCA). Segment 3 is within existing SCE ROW and traverses mountainous terrain, which support a rich diversity of vegetation communities (see Section 5.4, *Biological Resources*, for characteristic vegetation).

Segment 4

Segment 4 extends approximately 1 mile from the southern terminus of Segment 3 in the Calleguas hills to the Newbury Substation located off of Lawrence Drive in the City of Thousand Oaks. Segment 4 would be constructed entirely within the existing SCE ROW. Before Segment 4 enters the Newbury Substation it traverses undeveloped open space land. The Newbury Substation site is currently developed with infrastructure typical of a 66/16 kV substation such as buses, foundations, circuit breakers, disconnect switches, a MEER, a security fence around the substation, and a second perimeter fence at the property boundary. The substation is surrounded by light industrial buildings to the east and north east, and open space to the north, west, south.

Regulatory Setting

Federal

No federal regulations pertaining to land use and planning apply to the Proposed Project or alternatives.

State

California Public Utilities Commission General Order No. 131-D

The California Public Utilities Commission (CPUC) has sole and exclusive jurisdiction over the siting and design of the Proposed Project or an alternative because it authorizes the construction, operation, and maintenance of investor-owned public utility facilities. Although such projects are exempt from local land use and zoning regulations and discretionary permitting (i.e., would not require approval from a local decision-making body such as a planning commission or city council), General Order No. 131-D, Section XIV.B requires that in locating a project “the public utility shall consult with local agencies regarding land use matters.” The public utility is required to obtain any required non-discretionary local permit.

Local

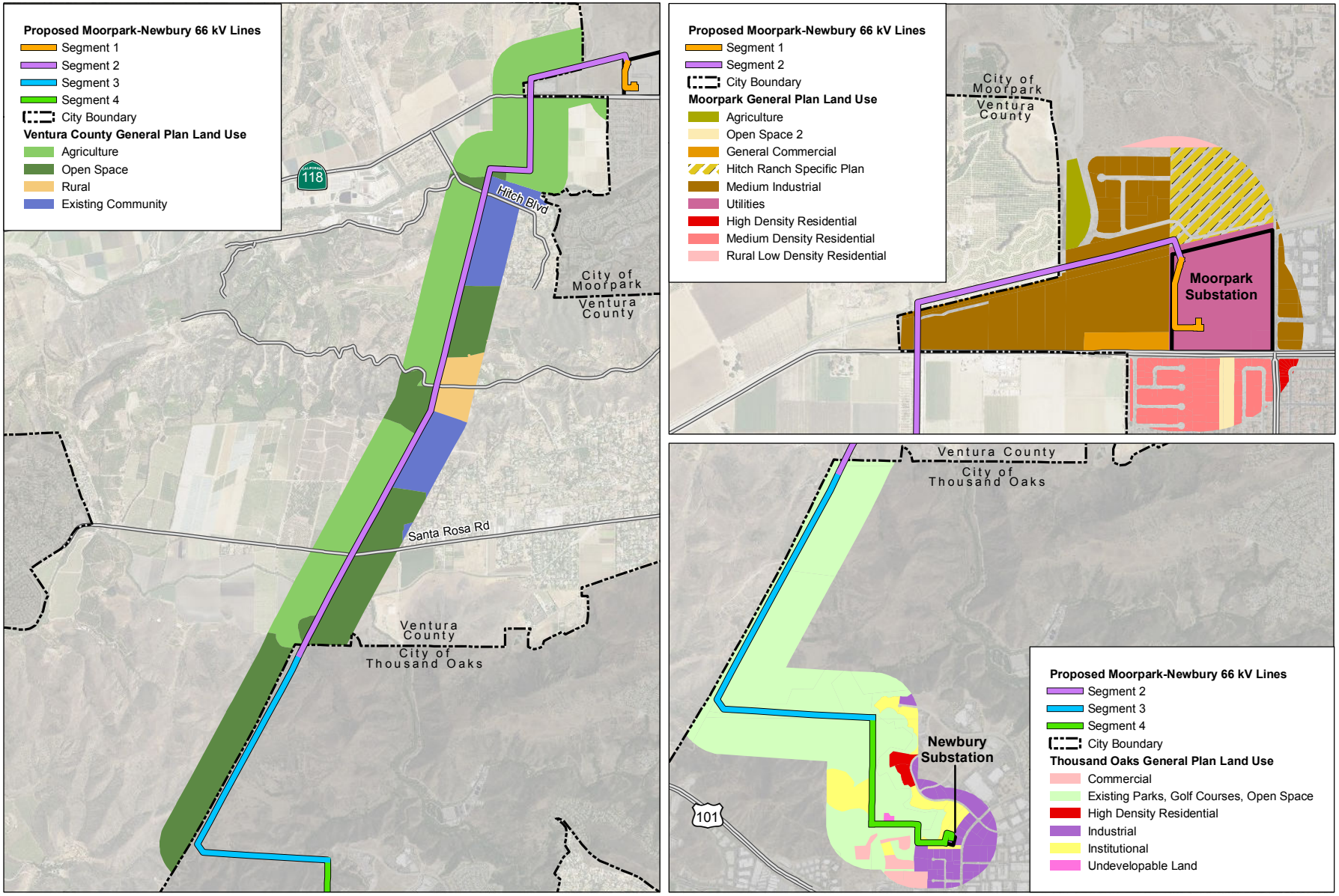
As stated above, CPUC General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project or alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to land use that would otherwise be relevant to the Proposed Project and alternatives are described below.

Ventura County General Plan

The Ventura County General Plan (various dates), is the County's long-range planning document. It consists of the following four topical chapters: Resources, Hazards, Land Use, and Public Facilities and Services. The purpose of the Land Use Chapter is to set goals, policies, and programs to guide future growth and development in the unincorporated area of Ventura County in a manner consistent with state legal mandates and requirements and the goals and quality of life desired by Ventura County citizens.

As shown in **Figure 5.11-1**, *General Plan Land Uses in the Proposed Project Area*, in unincorporated Ventura County the Proposed Project and alternatives would traverse parcels with *Agriculture*, *Existing Community*, *Rural,* and *Open Space* designations (Ventura County, 2013). Below are brief descriptions of these General Plan land use designations:

- The *Agriculture* designation applies to irrigated lands that are suitable for the cultivation of crops and the raising of livestock.
- The *Existing Community* designation identifies existing urban residential, commercial, or industrial enclaves located outside of urban designated areas. The *Existing Community* designation recognizes existing land uses in unincorporated areas that have been developed with urban building intensities and urban land uses; to contain these enclaves within specific areas so as to prevent further expansion; and to limit the building intensity and land use to previously established levels.
- The *Rural* designation identifies areas suitable for low-density and low-intensity land uses such as residential estates of 2 or more acres and other rural uses that are maintained in conjunction with agricultural and horticultural uses or in conjunction with the keeping of farm animals for recreational purposes.
- The *Open Space* designation identifies parcels or areas of land or water that are essentially unimproved and devoted to an open-space use as defined as any of the following:
  - Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.
  - Open space used for the managed production of resources, including but not limited to, forest lands, rangeland, agricultural lands not designated agricultural; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers and streams that are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.
  - Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas that serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.
  - Open space for public health and safety, including, but not limited to, areas that require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.



SOURCE: Ventura County, 2014; City of Moorpark, 2014; City of Thousand Oaks, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.11-1
General Plan Land Uses
in the Proposed Project Area

The CPUC General Order described above explains that local land use regulations do not apply. However, for information purposes, the following goals and policies identified in the County of Ventura General Plan would otherwise be relevant to the Proposed Project and alternatives:

Land Use Chapter

Goal 3.1.1-1: Ensure that the County can accommodate anticipated future growth and development while maintaining a safe and healthful environment by preserving valuable natural resources, guiding development away from hazardous areas, and planning for adequate public facilities and services. Promote planned, well-ordered and efficient land use and *development* patterns.

Goal 3.2.1-5-1: Preserve for the benefit of all County's residents the continue wise use of the County's renewable and nonrenewable resources by limiting the encroachment into such areas of uses which would unduly and prematurely hamper or preclude the use or appreciation of such resources.

Public Facilities and Services Chapter

Goal 4.5.1: Promote the efficient distribution of public utility facilities and transmission lines to assure that public utilities are adequate to service existing and projected land uses, avoid hazards and are compatible with the natural and human resources.

Policy 4.5.2.1: New gas, electric, cable television and telephone utility transmission lines shall use or parallel existing utility rights-of-way where feasible and avoid scenic areas when not in conflict with the rules and regulations of the California Public Utilities Commission. When such areas cannot be avoided, transmission lines should be designed and located in a manner to minimize their visual impact.

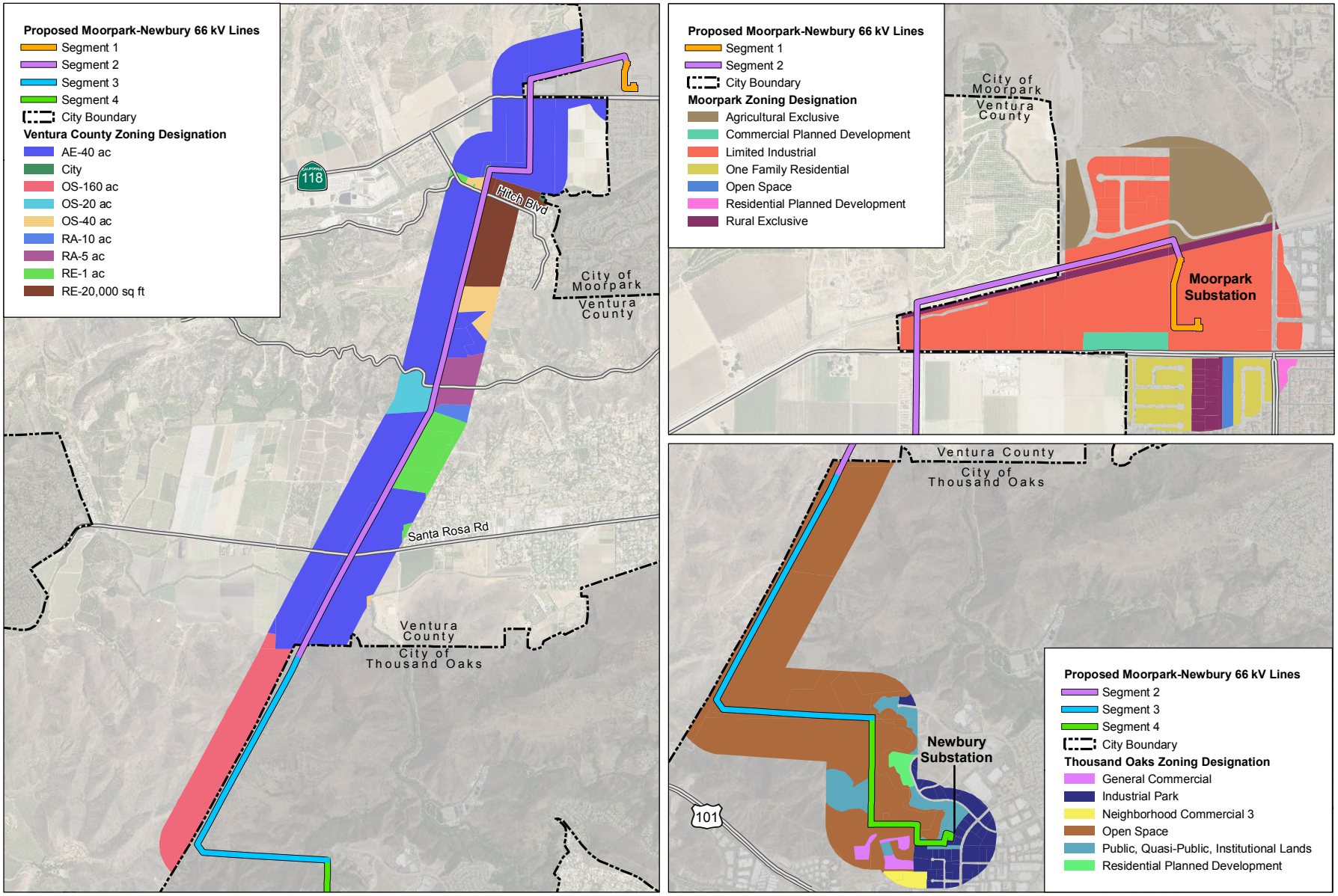
Policy 4.5.2.2: All transmission lines should be located and constructed in a manner which minimizes disruption of natural vegetation and agricultural activities and avoids unnecessary grading of slopes when not in conflict with the rules and regulations of the California Public Utilities Commission.

Policy 4.5.2.3: Discretionary development shall be conditioned to place utility service lines underground wherever feasible.

Ventura County Non-Coastal Zoning Ordinance

The Proposed Project and alternatives would fall under the jurisdiction of the Ventura County Non-Coastal Zoning Ordinance, Division 8, Chapter 1, which constitutes the comprehensive zoning regulations for the unincorporated area of the County of Ventura, excluding the Coastal Zone. The Zoning Ordinance was adopted to: protect and promote the public health, safety, and general welfare; to provide the environmental, economic, and social advantages that result from an orderly, planned use of resources; to establish the most beneficial and convenient relationships among land uses; and to implement Ventura County's General Plan.

As shown in **Figure 5.11-2**, *Zoning Designations in the Proposed Project Vicinity*, the Proposed Project and alternatives would traverse parcels with *Open Space*, *Agricultural Exclusive*, *Rural Exclusive, and Rural Agricultural* zoning designations (Ventura County, 2012). The purpose of the *Open Space* zone is to provide for the conservation of renewable and nonrenewable natural



SOURCE: Ventura County, 2014; City of Moorpark, 2014;
City of Thousand Oaks, 2014

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.11-2
Zoning Designations
in the Proposed Project Vicinity

resources, to preserve and enhance environmental quality, and to provide for the retention of the maximum number of future land use options while allowing reasonable and compatible uses on open lands in the County that have not been altered to any great extent by human activities. The purpose of the *Agricultural Exclusive* zone is to preserve and protect commercial agricultural lands as a limited and irreplaceable resource, to preserve and maintain agriculture as a major industry in Ventura County, and to protect these areas from the encroachment of nonrelated uses which, by their nature, would have detrimental effects upon the agriculture industry. The purpose of the *Rural Exclusive* zone is to provide for single family dwellings and farming uses. The purpose of the *Rural Agricultural* zone is to provide for and maintain a rural setting where a wide range of agricultural uses are permitted and surrounding residential land uses are protected (Ventura County, 2014a).

Per Section 8105-4, *Permitted Uses in Open Space, Agricultural, Residential* and *Special Purpose Zones,* transmission lines are permitted uses requiring a Planning Director-Approved conditional Use Permit (Ventura County, 2014b).

City of Moorpark General Plan

The City of Moorpark General Plan, adopted in 1992, is a long-range policy document that establishes broad goals and objectives for the growth and development of the City of Moorpark. The General Plan consists of six topical elements: Land Use; Circulation; Housing; Noise; Open Space, Conservation, and Recreation (OSCAR); and Safety. The Land Use Element and General Plan map identity the classifications of land uses and compatible land uses. The City of Moorpark General Plan does not contain any goals, policies, or objectives that would be applicable to the Proposed Project or alternatives (City of Moorpark, Various dates).

Portions of the Proposed Project and alternatives would be within the City of Moorpark, and would traverse parcels with *Utilities, Open Space 2,* and *Medium Industrial* designations (see Figure 5.11-1,*General Plan Land Uses in the Proposed Project Area*) (City of Moorpark, 2008a; City of Moorpark, 2014). The *Utilities* designation identifies major public utility facilities. The *Open Space 2* designation identifies permanent open space areas that function to preserve visual resources and natural areas, buffer communities, provide relief from noise and crowding of urban development, and maintain environmentally hazardous areas. The *Medium Industrial* designation is intended to provide for intensive industrial uses including light manufacturing, processing, fabrication, and other non-hazardous industrial uses (City of Moorpark, 2009).

City of Moorpark Municipal Code, Zoning Ordinance

The City of Moorpark's Zoning Ordinance is in Chapter 17 of the Moorpark Municipal Code. The Zoning Ordinance and zoning map constitute the comprehensive zoning regulations for the City of Moorpark and were adopted to: protect and promote the public health, safety, and general welfare; provide the environmental, economic, and social advantages that result from an orderly, planned use of resources; establish the most beneficial and convenient relationships among land uses; and implement the City of Moorpark's General Plan (City of Moorpark, 2014).

The Proposed Project and alternatives would traverse parcels with *Limited Industrial, Rural Exclusive*, and *Agricultural Exclusive* zoning designations (see Figure 5.11-2, *Zoning Designations in the Proposed Project Vicinity*) (City of Moorpark, 2008b; City of Moorpark, 2014). The purpose of the *Limited Industrial* zoning designation is to provide suitable areas for the development of a broad range of industrial and quasi-industrial activities of a light manufacturing, processing, or fabrication nature, while providing appropriate safeguards for adjoining industrial sites, nearby nonindustrial properties, and the surrounding community. The purpose of the *Rural Exclusive* zoning designation is to provide for and maintain rural residential areas in conjunction with horticultural activities, and to provide for a limited range of service and institutional uses that are compatible with and complementary to rural residential communities. The purpose of the *Agricultural Exclusive* zone is to preserve and protect commercial agricultural lands as a limited and irreplaceable resource, to preserve and maintain agriculture as a major industry in the city, and to protect these areas from the encroachment of nonrelated uses that, by their nature, would have detrimental effects upon the agriculture industry. In addition, per Sections 17.20.060 and 17.20.050, and Tables 17.20.060 and 17.20.050, utility structures are permitted in the *Limited Industrial, Rural Exclusive,* and *Agricultural Exclusive* zoning designations upon receipt of an administrative permit (City of Moorpark, 2014).

City of Thousand Oaks General Plan

The City of Thousand Oaks General Plan provides a long-range comprehensive guide for the physical development of the City's Planning Area. The General Plan comprises a statement of goals and policies related to the community's development and the following eight topical elements: Conservation, Forestry, Housing, Noise, Open Space, Safety, Scenic Highways, and Land Use/Circulation.

The Circulation and Land Use Element is a map that defines a plan for the distribution, type, and density of land uses in the City. Segments 3 and 4 would be located within the jurisdiction of the City of Thousand Oaks on land designated as: *Existing Parks, Golf Courses, Open Space; Institutional; Industrial,* and *Undevelopable Land* (see Figure 5.11-1, *General Plan Land Uses in the Proposed Project Area*) (City of Thousand Oaks, 2013).

The CPUC General Order described above explains that local land use regulations do not apply. However, for information purposes, the following goals identified in the City of Thousand Oaks General Plan would otherwise be relevant to the Proposed Project and alternatives (City of Thousand Oaks, 2001):

> *Goal:* To enhance and preserve the spaciousness and attractiveness of the Conejo Valley.
>
> *Goal:* To provide and maintain a system of natural open space and trails.
>
> *Goal:* To provide and maintain a permanent park and recreational system of sufficient size and quality to serve current and future needs, consistent with community expectations.
>
> *Goal:* Wildlife corridors and sensitive ecological systems within the City's Planning Area, should be protected.

City of Thousand Oaks Municipal Code, Zoning Ordinance

The Zoning Regulations Chapter of the City of Thousand Oaks Municipal Code constitutes the comprehensive zoning plan and regulations for the City. These regulations have been adopted to protect and promote the public health, safety, morals, and welfare and to provide the economic and social advantages that result from an orderly, planned use of land resources.

The portions of the Proposed Project and alternatives within the jurisdiction of the City of Thousand Oaks would traverse land zoned as *Open Space – Protected Ridgeline Overlay Zone, Industrial Park,* and *Public, Quasi-Public, and Institutional Lands and Facilities* (Figure 5.11-2, *Zoning Designations in the Proposed Project Vicinity*) (City of Thousand Oaks, 2011). The *Industrial Park* designation is established to provide areas for the development of planned manufacturing uses. The *Open Space* zoning designation ensures that any proposed structures and improvements in the zoning district will be compatible with surrounding zones and uses and will have minimal impact on the natural undisturbed character of the land. The *Public, Quasi-Public, and Institutional Lands and Facilities* zoning designation is intended to apply to publicly owned property, property owned by quasi-public or public service entities, such as utility companies, property planned to be used for certain institutional facilities, and certain private recreational facilities (City of Thousand Oaks, 2009).

Segments 2, 3, and 4 traverse land within the Thousand Oaks *Protected Ridgeline Overlay Zone*. As further discussed in Section 5.1, *Aesthetics,* the City of Thousand Oaks is bounded by prominent natural land forms and knolls including, but not limited to, the Santa Monica Mountains, the Conejo Mountain, the Mount Clef Ridge, and the Conejo Ridge. The *Protected Ridgeline Overlay Zone* promotes the preservation of natural views and open space with regulations to preserve natural lands forms, maintenance and preserve open space, and protect the scenic backdrop to the City's major roadways (City of Thousand Oaks, 2009).

Section 9-4.3602 states that in the *Open Space* zoning designation a special use permit is required for public utility facilities, including but not limited to electric power substations, water reservoirs and transmission lines, sewage treatment plants, natural gas pipelines, and ROW property for electric transmission lines in excess of 66 kV. Section 9-4.3201 states that in the *Public, Quasi-Public, and Institutional Lands and Facilities* zoning designation a development permit is required for public utility facilities, except that electric transmission lines shall be developed in locations approved by the CPUC. Section 9-4.3202 states that in the *Public, Quasi-Public, and Institutional Lands and Facilities* zoning designation special use permits are required for public utility facilities, including easement property for transmission lines in excess of 16 kV. The zoning regulations do not discuss the allowance or disallowance of transmission line facilities within the other zoning designations that the proposed subtransmission alignment would traverse (City of Thousand Oaks, 2009).

Conejo Canyons Open Space Management Plan

The Conejo Canyons Open Space Management Plan (Management Plan) was prepared by the COSCA to provide a comprehensive guide for the long-term management of the Conejo Canyons natural, cultural, and scenic resources while providing for compatible passive multi-use, trail-

based recreational activities. COSCA is a joint powers agency that was formed between the City of Thousand Oaks and the Conejo Recreation and Park District in 1977 in order to implement the adopted goals of the Open Space and Conservation Elements of the Thousand Oaks General Plan. The Conejo Canyons area is located in the northwestern corner of the City of Thousand Oaks.

Section 2.4 of the Management Plan identifies a number of ROWs held by a variety of public utilities that traverse the Conejo Canyons area, including the following for SCE:

> "Southern California Edison (SCE) electrical transmission lines and towers are located just beyond and parallel to the western boundary of the plan area. Portions of the access road ROW for the transmission lines traverse the western boundary of the Canyons West OSU [Open Space Unit]. SCE also has local transmission lines and access easements along the southern portion of the Canyons West OSU (Figure 2-8: SCE Easements). Dirt roads provide access through these easements, and some also serve as multipurpose trails. Two minor transmission lines serve the Hill Canyon Treatment Plant. The first runs from the Western Canyon area through the lower Conejo Creek to the plant. The second line runs from the Rancho Conejo Industrial Park down the canyon to the plant."

5.11.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant land use effects on the environment if it would:

a) Physically divide an established community;

b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or

c) Conflict with any applicable habitat conservation plan or natural community conservation plan.

5.11.3 Applicant Proposed Measures

No applicant proposed measures have been identified by SCE to reduce project impacts on land use, planning, and/or policies.

5.11.4 Impacts and Mitigation Measures

Approach to Analysis

The approach used to analyze potential impacts of the Proposed Project and alternatives related to land use and planning involved the following four steps:

1. Summarize existing land uses in areas where the various components of the Proposed Project would be developed (see Section 5.11.1, *Environmental Setting*);

2. Identify and review relevant provisions of state and local land use plans and policies (see Section 5.11.1, *Regulatory Setting*);

3. Determine whether construction, operation, and maintenance of the Proposed Project and alternatives would cause an adverse impact relative to identified significance criteria (see Section 5.11.2, *Significance Criteria*) and analyze whether any such impact would be less than significant, less than significant with mitigation incorporated, or potentially significant (see this section for analysis of impacts caused by the Proposed Project; impacts of alternatives are analyzed in Section 5.11.5); and

4. Analyze whether any incremental impact of the Proposed Project would be cumulatively considerable (see Chapter 7, *Cumulative Effects*).

a) Physically divide an established community. (No Impact)

The Proposed Project would be located entirely within existing ROWs, easements, public ROWs, and on existing SCE fee-owned property, alongside existing transmission and/or subtransmission lines and within existing substation boundaries. As discussed in the Section 5.11.1, *Setting*, the Proposed Project would be within the cities of Moorpark and Thousand Oaks, and in unincorporated Ventura County and would traverse several established land uses. Furthermore, in areas adjacent to neighborhoods, the Proposed Project would be located overhead and in existing ROW. Therefore, the Proposed Project would not create a new physical barrier (division) between any existing communities, or restrict access to any community. The Proposed Project would cause no impact related to the physical division of an established community (No Impact).

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b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (No Impact)

To determine the Proposed Project's consistency with applicable plans and polices, the following land use consistency analysis is provided. Pursuant to General Order No. 131-D, the CPUC has sole and exclusive jurisdiction over the siting and design of the Proposed Project. As discussed in Section 5.11.1, *Setting*, although the Proposed Project would be exempt from local land use and zoning regulations and discretionary permitting, General Order No. 131-D, Section XIV.B requires that in locating a project "the public utility shall consult with local agencies regarding land use matters." Therefore, because SCE is exempt from local land use zoning regulations and discretionary permitting, this land use consistency analysis is provided for informational purposes only.

Ventura County General Plan. SCE proposes to construct and operate a new subtransmission line and reconductor a segment of an existing subtransmission line through lands within the jurisdiction of Ventura County. As discussed in Section 5.11.1, *Setting*, the Proposed Project would cross areas that are designated as *Agriculture, Existing Community, Rural*, and *Open Space* (Ventura County, 2014a). The Ventura County General Plan does not discuss the allowance or disallowance of subtransmission line facilities within these land use designations. Furthermore, transmission lines are established features within the existing landscape, and the Proposed Project would not change the land use within the Proposed Project area. Accordingly, the Proposed Project would not conflict with the Ventura County General Plan land use designation (No Impact).

Ventura County Non-Coastal Zoning Ordinance. As discussed in the Setting, the Proposed Project would traverse land zoned by the Ventura County Non-Coastal Zoning Ordinance as *Open Space, Agricultural Exclusive,* and *Rural Exclusive* (Ventura County, 2012). Aboveground transmission lines are allowed in *Open Space, Agricultural Exclusive,* and *Rural* zoning designations with a Conditional Use Permit (Ventura County, 2014b). However, a use permit is a discretionary land use instrument, and so not required for the Proposed Project (No Impact).

City of Moorpark General Plan. As discussed in Section 5.11.1, *Setting*, the Proposed Project would traverse land designated by the City of Moorpark General Plan as *Utilities, Open Space 2,* and *Medium Industrial* (City of Moorpark, 2008a). The General Plan does not discuss the allowance or disallowance of subtransmission line facilities within these land use designation (City of Moorpark, 2009). Accordingly, locating the Proposed Project within these designations would not conflict with the City of Moorpark General Plan (No Impact).

City of Moorpark Zoning Ordinance. The Proposed Project would traverse land designated by the City of Moorpark Zoning Ordinance as *Limited Industrial, Rural Exclusive,* and *Agricultural Exclusive* (City of Moorpark, 2008b). Utility structures are permitted in the *Limited Industrial, Rural Exclusive,* and *Agricultural Exclusive* zoning designations upon receipt of an administrative permit (City of Moorpark, 2014) (No Impact).

City of Thousand Oaks General Plan. As discussed in Section 5.11.1, *Setting*, the Proposed Project would traverse land designated by the City of Thousand Oaks General Plan as *Existing Parks, Golf Courses, Open Space; Institutional;* and *Industrial.* The General Plan does not discuss the allowance or disallowance of subtransmission lines within these land use designations (City of Thousand Oaks, 2013). Accordingly, locating the Proposed Project within these designations would not conflict with the City of Thousand Oaks General Plan (No Impact).

City of Thousand Oaks Zoning Ordinance. The Proposed Project would traverse land designated by the City of Thousand Oaks Zoning Ordinance as *Open Space – Protected Ridgeline Overlay Zone, Industrial Park,* and *Public, Quasi-Public, and Institutional Lands and Facilities* (City of Thousand Oaks, 2011). Electric transmission lines are recognized as exempted from the zoning ordinance (No Impact).

For informational purposes, the City of Thousand Oaks *Protected Ridgeline Overlay Zone*, as set forth in Article 35 of the City's Zoning Ordinance, provides certain development standards within 300 feet horizontally or 100 feet vertically of the crest of a protected ridgeline. These standards can be modified with an approved request for a Special Use Permit. The significance of adverse impacts on the scenic vistas and natural features intended to be protected by the *Protected Ridgeline Overlay Zone* zoning designation would be considered by the City in evaluating such a request. As analyzed in Section 5.1, *Aesthetics*, under criterion c), the Proposed Project may be inconsistent with Section 9-4.3502. *Protected ridgeline development standards,* as it would construct new structures (i.e., TSPs), grade areas for TSP installation and road rehabilitation, and remove native vegetation within 300 feet horizontally or 100 feet vertically of the crest of a protected ridgeline. The removal of vegetation and grading related to the installation of new TSPs would not alter the contours of or change the elevation of the crest of the ridgeline, however, nor

would they substantially obstruct natural views and open space. Moreover, as analyzed under Impacts 5.1-2 through 5.1-5, with mitigation the Proposed Project would result in a less-than-significant impact on visual resources pertaining to substantially degrading the existing visual character or quality of the Proposed Project area and its surroundings from public views. Consequently, construction, operation, and maintenance of the subtransmission line would not conflict with the City of Thousand Oaks' *Protected Ridgeline Overlay Zone*.

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c) Conflict with any applicable habitat conservation plan or natural community conservation plan. (No Impact)

As discussed in Section 5.4, *Biological Resources*, no habitat conservation plans or natural community conservation plans apply to areas that would be traversed by the Proposed Project. However, Segments 3 and 4 traverse lands managed under COSCA's Management Plan. Although the Management Plan is not defined as a habitat conservation plan or a conservation plan, as discussed in Section 5.4, *Biological Resources*, it is intended to inventory the resources in the plan area, identify challenges and opportunities in managing resources, and suggest action for the long-tern management and environmental sustainability of land and resources within the Conejo Canyons area. The Management Plan acknowledges the presence of a number of utility ROWs held by a variety of agencies including SCE's ROWs. Construction in SCE's ROWs in the Conejo Canyons area is permitted under the Management Plan. Therefore, the Proposed Project would not result in any conflicts with an adopted habitat conservation plan or natural community conservation plan (No Impact).

5.11.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the Proposed Project would not be implemented; therefore, there would be no impact related to land use and planning. None of the Project Objectives would be met and future demand in the electric needs area (ENA) would not be adequately met. SCE forecast indicates a projected voltage drop that would exceed the acceptable 5 percent limit on the 66 kV bus at Newbury Substation under abnormal system conditions and a projected overload on the Moorpark-Newbury tap of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line under a normal system configuration. While these conditions would jeopardize SCE's ability to provide safe and reliable electric service to customers within the ENA, they would not result in physical impacts related to land use and planning (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed,

with the exception of the previously installed LWS poles and energized conductor. Construction activities required to remove the existing infrastructure would occur within the same jurisdictions and designations as the Proposed Project. Therefore, implementation of this alternative would not physically divide an established community; conflict with any applicable land use plan, policy, or regulation; or conflict with an applicable habitat conservation plan or an approved habitat plan. No Project Alternative 2 would result in no impact related to land use and planning (No Impact).

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5.12 Mineral Resources

This section describes the existing sources of mineral and energy resources in the Proposed Project area and evaluates the potential for construction, operation, and maintenance of the Proposed Project and alternatives to result in the loss of availability of known or locally important mineral resources.

5.12.1 Setting

Minerals are naturally occurring chemical elements or compounds, or groups of elements or compounds, formed from inorganic processes and from organic substances. Naturally occurring concentrations of minerals in the earth's crust are known as mineral deposits. Mineral resources are mineral deposits of which the economic extraction of a commodity (such as gold or copper) from the deposit is currently potentially feasible. In addition to metallic minerals, materials used for construction (e.g., sand and aggregate), industrial and chemical processes (e.g., salt), and fuel (e.g., crude oil) can be considered mineral resources in California. Locations of past and current mining activity as well as the presence of geologic materials that can be mined both can be used to assess the potential mineral resources at a site.

The primary mineral resources of Ventura County are petroleum (oil and gas) and aggregates (sand and gravel) (Ventura County, 2011). Other minerals of commercial value found in the County include asphalt, clay, decorative stone, expansible shale, gypsum, limestone, and phosphate (Ventura County, 2011). As described in Section 5.7, *Geology and Soils*, geologic materials in the vicinity of the Proposed Project sites generally consist of poorly consolidated to unconsolidated alluvium in Little Simi Valley and Santa Rosa Valley, highly folded and faulted sedimentary rocks in the Las Posas Hills, and volcanic rocks in the Calleguas Hills.

Thousands of oil and gas wells have been drilled in Ventura County since exploration and production began in the mid-1800s. In Ventura County, petroleum production accounts for approximately 75 percent of the total mineral extraction (Ventura County, 2011). Oil fields closest to the Proposed Project alignment are the Moorpark West, Moorpark, and Conejo fields (approximately 1 mile northwest, northeast, and southwest, respectively. These fields are largely abandoned, with the exception of one producing well in the Moorpark West field. Multiple dry exploration wells are present in the Calleguas Hills near the Proposed Project. There are no producing, idle, or abandoned oil or gas wells within the rights-of-way (ROW) in which the Proposed Project would be constructed and operated (California Department of Conservation Division of Oil, Gas, and Geothermal Resources [DOGGR], 2014).

Aggregates are another significant mineral resource in Ventura County. Sand, gravel, and rock used for fill, concrete, and riprap are extracted in the county. Aggregate resource areas identified by the county are based upon the Mineral Resource Zone maps created by California Division of Mines and Geology (now California Geological Survey [CGS]) (Ventura County, 2013). In accordance with the Surface Mining and Reclamation Act of 1975, the California Department of Conservation, Division of Mines and Geology, mapped nonfuel mineral resources of the state to

show where economically significant mineral deposits are either present or likely to occur based on the best available scientific data. The Proposed Project traverses lands where either (1) adequate information indicates that no significant mineral deposits are present or are likely to exist, or (2) mineral deposits exist but are of undetermined significance (MRZ-1 and MRZ-3, respectively, as described in greater detail below) (CDMG, 1981). The Proposed Project does not intersect lands designated by Ventura County as Mineral Resource Areas (Ventura County, 2010). The U.S. Geological Survey (USGS) Mineral Resource Data System indicates the nearest mineral resources to the Proposed Project are aggregate resources (sand and gravel) currently mined at the Blue Star Pit near Moorpark, approximately 1 mile east of Moorpark Substation (USGS, 2005).

Regulatory Setting

Federal

No federal mineral resource-related regulations would apply to the Proposed Project or alternatives because they would not traverse any federal lands or require federal approvals.

State

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act of 1975 (SMARA) (Public Resources Code [PRC] §§2710-2796) and its implementing regulations (14 California Code of Regulations [CCR] §3500 et seq.) establish a comprehensive state policy for the conduct of surface mining operations and for the reclamation of mined lands to a usable condition that is readily adaptable for alternative land uses. SMARA encourages the production, conservation, and protection of the state's mineral resources and recognizes that "the state's mineral resources are vital, finite, and important natural resources and the responsible protection and development of these mineral resources is vital to a sustainable California" (PRC §2711). Under SMARA, the term "minerals" includes "any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances, including, but not limited to, coal, peat, and bituminous rock, but excluding geothermal resources, natural gas, and petroleum" (14 CCR §3501).

The CGS maps and regulates the locations of potential mineral resources in California consistent with SMARA. In order to protect these potential mineral resources, the CGS has classified the regional significance of mineral resources into Mineral Resource Zones (MRZs) and mapped them. Descriptions of the MRZ categories are provided in **Table 5.12-1** *California Mineral Land Classification System Category Descriptions.*

Local

Local governments generally regulate mineral resources and mining within their jurisdictions pursuant to their General Plan and local surface mining ordinances. California Public Utilities Commission (CPUC) General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project. However, for informational purposes, the goals and policies of

TABLE 5.12-1
CALIFORNIA MINERAL LAND CLASSIFICATION SYSTEM CATEGORY DESCRIPTIONS

Mineral Resource Zone Category	Category Description	
MRZ-1	*Areas of No Mineral Resource Significance*	
MRZ-2a	*Areas of Identified Mineral Resource Significance*	Demonstrated Reserves
MRZ-2b		Inferred Resources
MRZ-3a	*Areas of Undetermined Mineral Resource Significance*	Known Mineral Occurrence
MRZ-3b		Inferred Mineral Occurrence
MRZ-4	*Areas of Unknown Mineral Resource Significance*	No Known Mineral Occurrence

SOURCE: CDMG, nd.

local general plans and other planning documents pertaining to mineral resources that would otherwise be relevant to the Proposed Project and alternatives are described below.

Ventura County General Plan

Ventura County safeguards access to mineral resources by designating appropriate areas as Mineral Resource Areas and then applying zoning requirements known as the Mineral Resource Protection Overlay Zone to those areas (Ventura County, 2011). The Proposed Project is not within areas designated as Mineral Resource Areas. The only policy relevant to the Proposed Project is Policy 1.4.2.6, which states that all discretionary developments shall be evaluated for their individual and cumulative impacts on access to and extraction of recognized mineral resources in compliance with CEQA.

City of Moorpark General Plan

The Conservation, Open Space, and Recreation element of the Moorpark General Plan includes policies designed to maintain the overall quality of life for Moorpark residents through rational management of natural resources and open space lands (City of Moorpark, 1986). A mineral resource overlay designation is included in the land use map of the General Plan and applies to areas outside of the City limits but within the Moorpark Area of Interest. The overlay designation indicates areas containing significant mineral resource deposits as identified by CGS. The Proposed Project does not traverse areas of regional mineral resource significance as identified in the Moorpark General Plan (City of Moorpark, 1986).

City of Thousand Oaks General Plan

No significant mineral resources exist within the Thousand Oaks planning area; mineral resources are not inventoried in the General Plan and it contains no policies related to mineral resources (City of Thousand Oaks, 2013).

5.12.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant mineral resources effects on the environment if it 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.

5.12.3 Applicant Proposed Measures

No applicant proposed measures are proposed related to mineral resources.

5.12.4 Impacts and Mitigation Measures

Approach to Analysis

To evaluate potential impacts of the Proposed Project on mineral resources, the locations of Proposed Project components were compared with maps of known mineral resources of value to the state, region, and local jurisdictions to determine whether components would occur on or otherwise limit access to these resources. The outcomes of this analysis are described below.

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. (No Impact)

The Proposed Project would traverse areas that have been classified as either having no mineral resources of value to the region and state or as having an unknown value. The significance of the minerals in the Las Posas Hills and the Calleguas Hills has not been determined, but minerals are known to occur in those areas. However, the Proposed Project would not impact access to mineral resources, or result in the loss of availability of a known mineral resource, and thus would have no impact pertaining to criterion a) (No Impact).

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b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. (No Impact)

As noted in Section 5.12.1, *Setting*, none of the relevant municipalities identify mineral resources of local importance along the Proposed Project alignment. The Proposed Project would not impact the availability of locally important mineral resource recovery sites (No Impact).

5.12.5 Alternatives

No Project Alternative 1

No Project Alternative 1 would result in no new 66 kV subtransmission line in the proposed location. Under this alternative structures would not be built and conditions in the area would not change; thus, this alternative would have no impact on access to mineral resources of statewide or local value (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. There would be no change related to access to mineral resources of statewide or local value after infrastructure removal. There would be no impact on access to mineral resources under this alternative (No Impact).

References – Mineral Resources

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5.13 Noise

This section evaluates potential impacts associated with noise levels from construction, operation, and maintenance of the Proposed Project and alternatives.

5.13.1 Setting

Noise Background

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise can be defined as unwanted sound. Sound is characterized by various parameters that include 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 has become the most common descriptor used to characterize the loudness of an ambient sound level. Sound pressure level is measured in decibels (dB), with 0 dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). All sound pressure levels and sound power levels reported below are A-weighted.

Noise Exposure and Community Noise

An individual's noise exposure is a measure of the noise experienced by the individual over a period of time. A noise level is a measure of noise at a given instant in time. However, noise levels rarely persist consistently over a long period of time. In fact, community noise varies continuously with time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. Background noise levels change throughout a typical day, but do so gradually, corresponding with the addition and subtraction of distant noise sources and atmospheric conditions. The addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens) makes community noise constantly variable throughout a day.

These successive additions of sound to the community noise environment vary the community noise level from instant to instant requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The noise descriptors used in this analysis are summarized below:

L_{eq}: The equivalent sound level is used to describe noise over a specified period of time, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

CNEL: The Community Noise Equivalent Level (CNEL) is a 24-hour L_{eq} that adds a five dBA penalty to noise occurring during evening hours from 7:00 p.m. to 10:00 p.m., and a 10 dBA penalty to sounds occurring between the hours of 10:00 p.m. to 7:00 a.m. to account for the increased sensitivity to noise events that occur during the quiet late evening and nighttime periods.

L_{max}: The instantaneous maximum noise level measured during the measurement period of interest.

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- subjective effects of annoyance, nuisance, dissatisfaction;
- interference with activities such as speech, sleep, learning; and
- physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers at industrial plants often experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation exists in the individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way the new noise compares to the existing noise levels that one has adapted, which is referred to as the "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference when the change in noise is perceived but does not cause a human response;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. A ruler is a *linear* scale; it has marks on it corresponding to equal quantities of distance. One way of expressing this is to say that the ratio of successive intervals is equal to one. A *logarithmic* scale is different in that the ratio of successive intervals is not equal to one. Each interval on a logarithmic scale is some common factor larger than the previous interval. A typical ratio is 10, so that the marks on the scale read: 1; 10; 100; 1,000; 10,000; etc., doubling the variable plotted on the x-axis. The human ear perceives sound in a non-linear fashion; hence, the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather they combine logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Sound level naturally decreases with more distance from the source. This basic attenuation rate is referred to as the *geometric spreading loss*. The basic rate of geometric spreading loss depends on whether a given noise source can be characterized as a point source or a line source. Point sources of noise, including stationary mobile sources such as idling vehicles or on-site construction equipment, attenuate (lessen) at a rate of 6.0 dBA per doubling of distance from the source. In many cases, noise attenuation from a point source increases to 7.5 dBA for each doubling of distance due to ground absorption and reflective wave canceling. These factors are collectively referred to as *excess ground attenuation*. The basic geometric spreading loss rate is used where the ground surface between a noise source and a receiver is reflective, such as parking lots or a smooth body of water. The excess ground attenuation rate (7.5 dBA per doubling of distance) is used where the ground surface is absorptive, such as soft dirt, grass, or scattered bushes and trees.

Widely distributed noises such as a street with moving vehicles (a “line” source) would typically attenuate at a lower rate of approximately 3.0 dBA for each doubling of distance between the source and the receiver. If the ground surface between source and receiver is absorptive rather than reflective, the nominal rate increases to 4.5 dBA for each doubling of distance. Atmospheric effects, such as wind and temperature gradients, can also influence noise attenuation rates from both line and point sources of noise. However, unlike ground attenuation, atmospheric effects are constantly changing and difficult to predict.

Trees and vegetation, buildings, and barriers reduce the noise level that would otherwise occur at a given receptor distance. However, for a vegetative strip to have a noticeable effect on noise levels, it must be dense and wide. For example, a stand of trees must be at least 100 feet wide and dense enough to completely obstruct a visual path to the roadway to attenuate traffic noise by 5 dBA (Caltrans, 1998). A row of structures can shield more distant receivers depending upon the size and spacing of the intervening structures and site geometry. Similar to vegetative strips discussed above, noise barriers, which include natural topography and soundwalls, reduce noise by blocking the line of sight between the source and receiver. Generally, a noise barrier that breaks the line of sight between source and receiver will provide at least a 5-dBA reduction in noise.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal and is typically expressed in units of inches per second (in/sec). The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration (FTA, 2006). Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration.

Existing Ambient Noise Environment

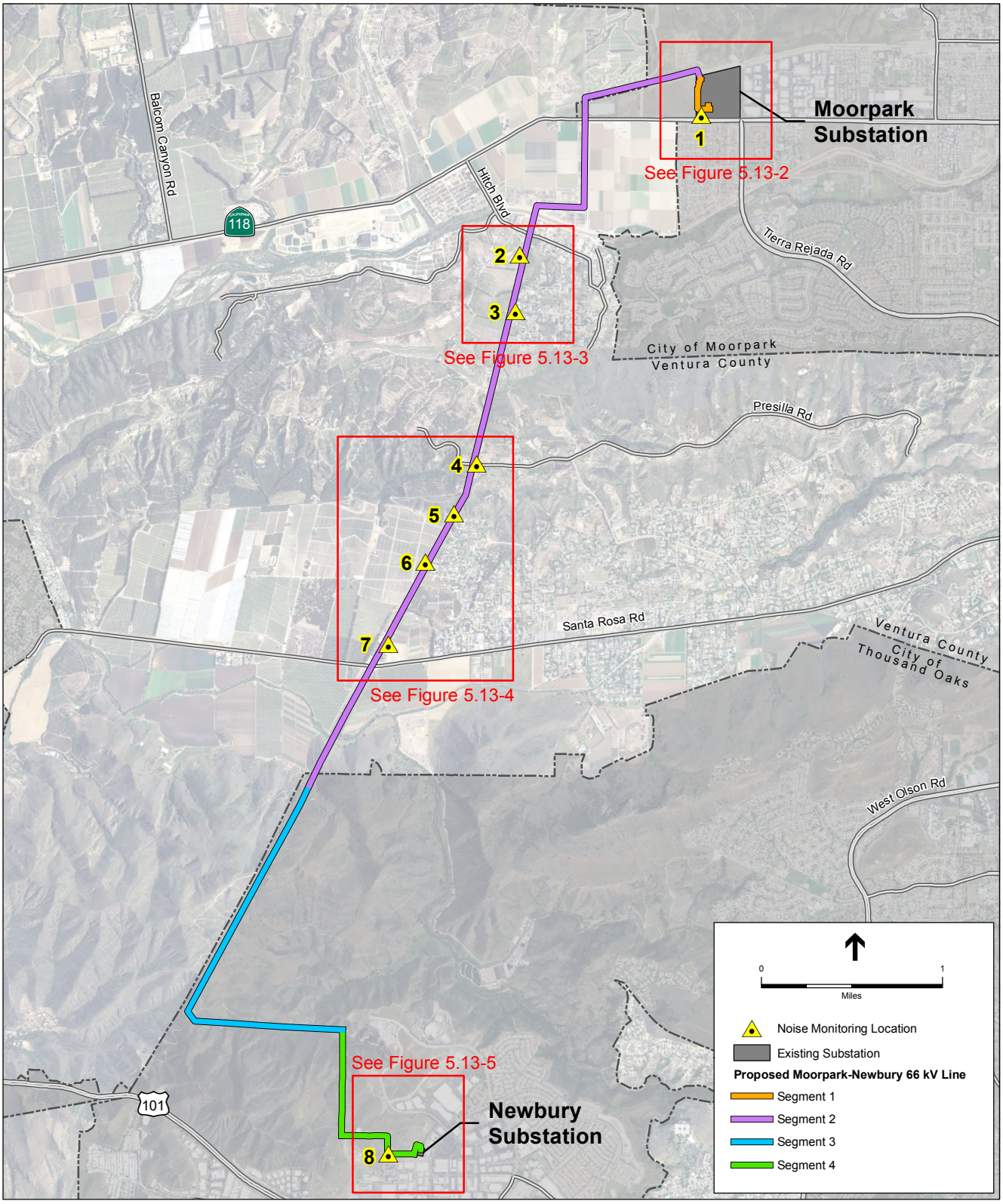
The Proposed Project would be constructed in rural agricultural areas, open space, and adjacent to several residential areas. Existing noise sources in the area are community-related (e.g., lawn mowers, power equipment, air conditioners), vehicles on roadways and trains on a railroad, aircraft overflights, and the operation of agricultural equipment. In order to evaluate existing ambient noise in the Proposed Project area, Southern California Edison (SCE) had noise measurements collected at eight locations along the proposed alignment in noise-sensitive areas (see **Figures 5.13-1,** *Noise Monitoring Locations-Index,* through **5.13-5**, *Noise Monitoring Locations-Segment 4,*for illustrations of the noise monitoring locations). Existing ambient noise levels were measured in a series of 1-hour equivalent sound level measurements (L_{eq}, A-weighted). The results of SCE's noise monitoring are shown in **Table 5.13-1,** *Measured Ambient 1-Hour Average Noise Levels At Sensitive Receptors***,** below. As indicated in the table, 1-hour L_{eq} noise levels in the majority of the Proposed Project area were in the low to high 40-dBA range, with the exception of near the residences south of Moorpark Substation (location no. 1), which was measured to be approximately 74 dBA. The dominant noise source at this location is moderate to heavy traffic along Los Angeles Avenue (also called State Route 118), which is immediately north of the measurement location.

TABLE 5.13-1
MEASURED AMBIENT 1-HOUR AVERAGE NOISE LEVELS AT SENSITIVE RECEPTORS

Measurement Location No.	Proposed Project Segment	Noise Measurement Location	1-hour L_{eq} (dBA)
1	Segments 1 and 2	Residential area south of Moorpark Substation	74.2
2	Segment 2	Southeast of intersection of Hitch Boulevard and Ventavo Road	47.4
3	Segment 2	End of Ternez Drive west of Citrus Drive	48.3
4	Segment 2	Western terminus of Presilla Road	44.8
5	Segment 2	Northwest of terminus of Yucca Drive	49.8
6	Segment 2	North of terminus of Churchman Lane	42.4
7	Segment 2	North of Intersection of Santa Rosa Road and Rosita Road	46.4
8	Segment 4	Residences west of Newbury Substation	44.4

NOTE: Noise measurements at locations 1 through 5 were collected in the morning and early afternoon on November 2, 2012, and measurements at locations 6 through 8 were collected in the afternoon on November 1, 2012.

SOURCE: SCE, 2013.



SOURCE: SCE, 2013

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 5.13-1

Noise Monitoring Locations - Index

SOURCE: SCE, 2013

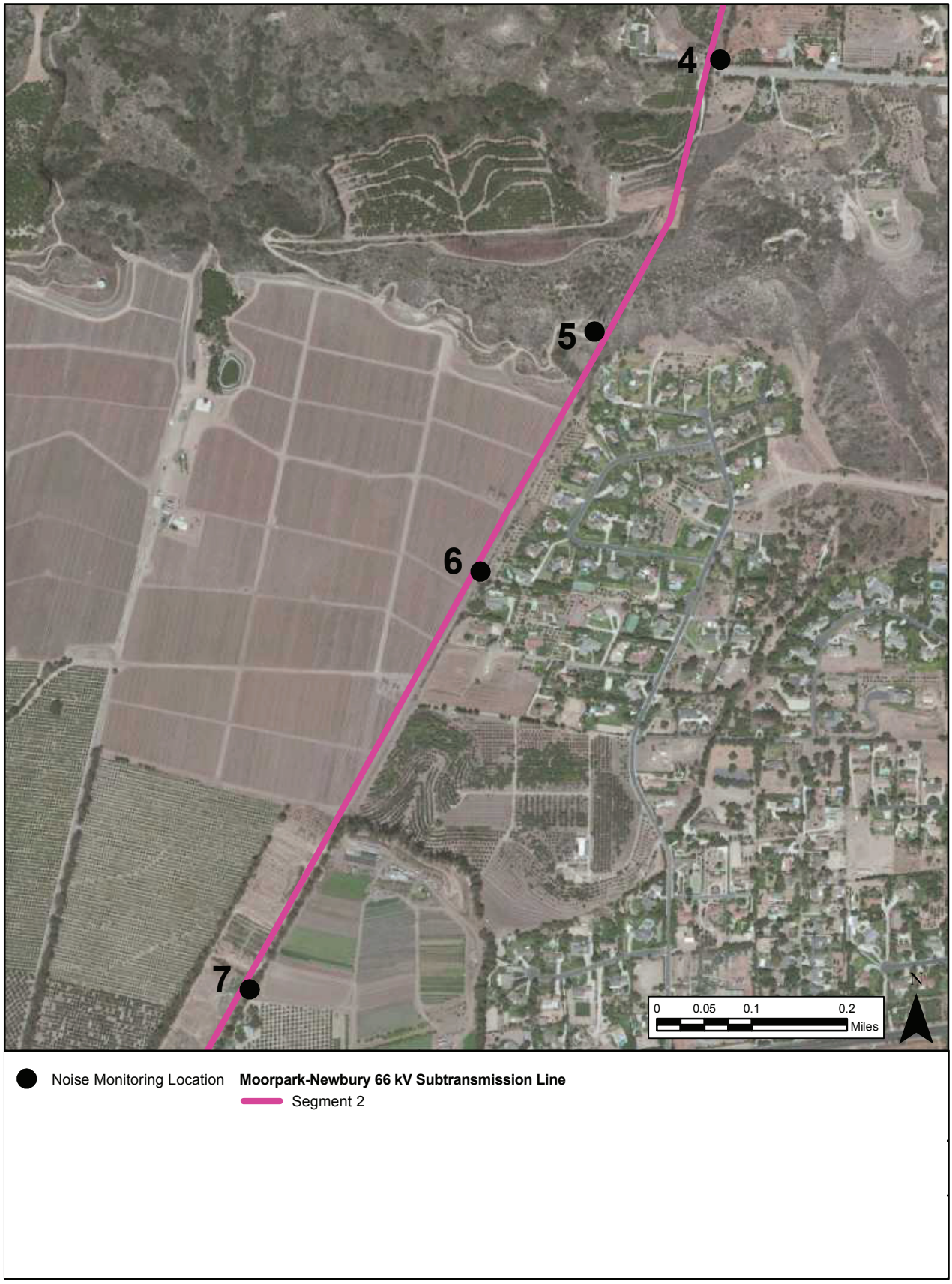
Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

Figure 5.13-2
Noise Monitoring Locations - Segment 1

Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

SOURCE: SCE,2013

Figure 5.13-3
Noise Monitoring Locations - Segment 2



Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

SOURCE: SCE, 2013

Figure 5.13-4
Noise Monitoring Locations - Segment 2

Moorpark-Newbury 66 kV Subtransmission Line Project . 207584.15

SOURCE: SCE, 2013

Figure 5.13-5
Noise Monitoring Locations - Segment 4

Sensitive Receptors

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication, and can cause physiological and psychological stress and hearing loss. Given these effects, some land uses are considered more sensitive to ambient noise levels than others. In general, residences, schools, hotels, hospitals, and nursing homes are considered to be the most sensitive to noise. Places such as churches, libraries, and cemeteries, where people tend to pray, study, and/or contemplate are also sensitive to noise. Commercial and industrial uses are considered the least noise-sensitive.

There are numerous residences along the proposed alignment. In Segment 1, there are about three dozen residences between 150 feet to 500 feet south of Staging Yard 1 at Moorpark Substation, in the City of Moorpark. In Segment 2, in the vicinity of Hitch Road and west of Citrus Drive (unincorporated Ventura County), there are approximately 30 homes between 80 feet and 500 feet of the proposed alignment. Within Santa Rosa Valley (unincorporated Ventura County), there are approximately 20 residences between 130 feet and 500 feet of the proposed alignment. One residence, located off Santa Rosa Road, would be located approximately 350 feet west of the proposed helipad located 800 feet west of the alignment near where Segment 2 ends and Segment 3 begins. In the City of Thousand Oaks, there are 12 residences off Marion Street between 70 feet and 500 feet south of the proposed alignment in Segment 4. In addition, the Newbury Park Adventist Academy is approximately 500 feet south of the proposed alignment in Segment 4, off North Wendy Drive.

Regulatory Setting

Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general plans tend to identify general principles intended to guide and influence development plans; local noise ordinances establish standards and procedures for addressing specific noise sources and activities.

Ventura County

General Plan

California Public Utilities Commission (CPUC) General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project. However, for the purpose of assessing the significance of noise-related impacts of the Proposed Project, the following policies identified in the Ventura County General Plan are otherwise be relevant to the Proposed Project (Ventura County, 2013):

Policy 2.16.2-1(4)[1]: Noise generators, proposed to be located near any *noise sensitive use*, shall incorporate noise control measures so that ongoing outdoor noise levels received by the noise sensitive receptor, measured at the exterior wall of the building, does not exceed any of the following standards:

a. 1-hour L_{eq} of 55 dB(A) or ambient noise level plus 3 dB(A), whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.

b. 1-hour L_{eq} of 50 dB(A) or ambient noise level plus 3 dB(A), whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.

c. 1-hour L_{eq} of 45 dB(A) or ambient noise level plus 3 dB(A), whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.

Policy 2.16.2-1(5): Construction noise shall be evaluated and, if necessary, mitigated in accordance with the County *Construction Noise Threshold Criteria and Control Plan.*

Construction Noise Threshold Criteria and Control Plan

The Ventura County *Construction Noise Threshold Criteria and Control Plan* establishes construction noise thresholds and standard noise monitoring and control measures for construction projects located in Ventura County (Ventura County, 2010). **Table 5.13-2,** *Ventura County Construction Activity Noise Threshold Criteria,* displays daytime, evening, and nighttime construction noise threshold criteria for projects in Ventura County. The criteria presented in the table are expressed in hourly average noise levels not to be exceeded. In addition to hourly average noise levels, the L_{max} shall not exceed the noise threshold criteria presented in the table by 20 dBA more than eight times per daytime-hour, more than six times per evening-hour, or more than four times per nighttime-hour. If construction projects exceed the noise threshold criteria at sensitive receptor sites, the County requires contractors to implement effective noise mitigation measures recommended by equipment manufacturers (Ventura County, 2010).

While compliance with the thresholds set forth in Table 5.13-2 would reduce the likelihood of strong adverse community reaction, the plan notes that noise complaints are still possible. Therefore, the plan recommends that a "complaint log" noting date, time, complainant's name, nature of the complaint, and any corrective action be maintained throughout construction of a project. To ensure that complaints are registered effectively, the plan recommends that a "hot line" telephone or pager number that is attended to during active construction working hours be published and distributed to the potentially affected community (Ventura County, 2010).

[1] Policy 2.16.2-1(4) is not applicable to increased traffic noise along any of the roads identified within the 2020 Regional Roadway Network Public Facilities Appendix of the Ventura County General Plan. In addition, state and federal highways, all railroad line operations, aircraft in flight, and public utility facilities are noise generators having federal and state regulations that preempt local regulations.

TABLE 5.13-2
VENTURA COUNTY CONSTRUCTION ACTIVITY NOISE THRESHOLD CRITERIA

Construction Duration Affecting Noise-Sensitive Receptors	Noise Threshold Criteria[a]	
	Fixed L_{eq} (1-hour), dBA	Hourly Equivalent Noise Level (L_{eq}), dBA[b,c]
Daytime (Mon-Fri 7:00 a.m. to 7:00 p.m.; Sat, Sun and holidays 9:00 a.m. to 7:00 p.m.)		
0 to 3 days	75	Ambient L_{eq} (1-hour) + 3 dB
4 to 7 days	70	Ambient L_{eq} (1-hour) + 3 dB
1 to 2 weeks	65	Ambient L_{eq} (1-hour) + 3 dB
2 to 8 weeks	60	Ambient L_{eq} (1-hour) + 3 dB
Longer than 8 weeks	55	Ambient L_{eq} (1-hour) + 3 dB
Evening (7:00 p.m. to 10:00 p.m.)		
Any duration	50	Ambient L_{eq} (1-hour) + 3 dB
Nighttime (Mon-Fri 10:00 p.m. to 7:00 a.m.; Sat, Sun and holidays 10:00 p.m. to 9:00 a.m.)		
Any duration	45	Ambient L_{eq} (1-hour) + 3 dB

[a] The applicable noise threshold criteria shall be the greater of the noise levels presented in the table at the nearest receptor area or 10 feet from the nearest noise sensitive building.

[b] The instantaneous L_{max} shall not exceed the noise threshold criteria by 20 dBA more than eight times per daytime-hour, six times per evening-hour, or four times per nighttime-hour.

[b] Local ambient L_{eq} measurements shall be made on any mid-week day during applicable hours prior to project work.

SOURCE: Ventura County, 2010

Noise Ordinance

Ventura County Ordinance No. 4124 regulates nighttime noise in residential zones. According to the ordinance, no person shall create within any residential zone of Ventura County, any loud or raucous noise which is audible to the human ear during the hours of 9:00 p.m. to 7:00 a.m. the following day, at a distance of 50 feet from the property line of the noise source or 50 feet from any such noise source if the noise source is in a public right-of-way (ROW) (Ventura County, 1996).

City of Thousand Oaks

General Plan

The General Plan Noise Element includes a program to help the city achieve its noise goals and objectives. As part of this program, the City of Thousand Oaks has defined thresholds for determining significance of noise impacts under CEQA. According to the city, if the annual average CNEL that considers a proposed project, cumulative projects, and General Plan buildout in an area currently designated in the General Plan for noise-sensitive land use is expected to be less than 55 dB, then impacts would be considered less than significant. If the CNEL is expected to be 55 to 60 dB, then a project would be considered to have an individually significant impact if it would increase noise levels by greater than 1 dB. When the CNEL would be expected to be 60 dB or greater, then a project would be considered significant if noise levels increase by 0.5 dB or more (City of Thousand Oaks, 2000).

Municipal Code

Title 5, Chapter 21 of the City of Thousand Oaks Municipal Code regulates noise levels throughout the city. This chapter prohibits any person from causing any loud, unnecessary, and unusual noise that disturbs the peace or quiet of any neighborhood, or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area (City of Thousand Oaks, 1990).

Acceptable hours for construction activities are set forth in Title 8, Chapter 11 of the city's Municipal Code. According to the code, construction hours are limited to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday, unless a permit for work during different hours or days has been issued by the Public Works Director (City of Thousand Oaks, 1970).

City of Moorpark

General Plan

The City of Moorpark General Plan Noise Element contains the following policies that would be relevant to the Proposed Project (City of Moorpark, 1998a):

> *Policy N-1.3:* Provide for reduction in noise impacts from non-transportation sources through adoption of a Noise Ordinance, which is intended to protect people from noise generated on adjacent properties.
>
> *Policy N-1.4:* Require stationary noise sources to limit noise to levels that do not interfere with adjacent uses.
>
> *Implementation N-1.4.1:* The City shall enforce the Municipal Code provisions relating to the time limitations that construction activity in or adjacent to residential areas may occur in order to reduce the intrusion of noise in the early morning and late evening hours, on weekends and holidays. At the time of development project approval, the City shall ensure, through conditions of approval, that adequate noise control measures at all construction sites are provided through the provision of mufflers and the physical separation of machinery maintenance areas from adjacent residential uses.

Municipal Code

The City of Moorpark Municipal Code, Section 17.53.070 regulates noise in the city. In general, noise generated from construction activities are exempt from the noise limits, provided that the construction activities occur between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. Operational noise generated by the Proposed Project would be limited to 55 dBA during the hours of 10:00 p.m. to 7:00 a.m. and 60 dBA between the hours of 7:00 a.m. and 10:00 p.m. (City of Moorpark, 1998b).

5.13.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant noise effects on the environment if it would:

a) Expose people to or generate noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies;

b) Expose people to or generate excessive groundborne vibration or groundborne noise levels;

c) Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

d) Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, expose people residing or working in the area to excessive noise levels; or

f) For a project located in the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

5.13.3 Applicant Proposed Measures

SCE has proposed the following applicant proposed measure (APM) to minimize impacts of noise from the Proposed Project. The impact analysis assumes that the APM would be implemented (i.e., part of the Proposed Project) to reduce noise-related impacts as discussed below.

> **APM NOI-1: Noise Reduction.** Noise-generating construction activities were, and would be, conducted generally only during daytime hours (7:00 a.m. to 7:00 p.m.), Monday through Saturday. Construction activities were, and would be, conducted or staggered to ensure that the noise generated during construction would not exceed significance thresholds or durations identified by the County of Ventura noise regulations set forth in the County's Construction Noise Threshold Criteria and Control Plan (2010).

5.13.4 Impacts and Mitigation Measures

Approach to Analysis

Equipment noise during construction of the Proposed Project is the primary concern in evaluating short-term noise impacts. During operation, noise from corona discharge along the subtransmission lines and general operation and maintenance activities would be the primary concerns associated with long-term noise impacts.

Evaluation of potential noise impacts from construction, operation, and maintenance of the Proposed Project included a review of relevant Ventura County, City of Moorpark, and City of Thousand Oaks noise standards and policies, as well as a comparison of the existing noise environment with estimated construction, operation, and maintenance noise levels associated with the Proposed Project. Because there are no noise level standards or thresholds applicable to construction activities in the cities of Moorpark and Thousand Oaks, short-term construction impacts that would occur in these jurisdictions were assessed relative to recommendations of the Federal Transit Administration (FTA).

a) Expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact 5.13-1: Construction activities would generate noise levels in unincorporated Ventura County that would exceed Ventura County construction noise threshold criteria. *Significant and unavoidable* (Class I)

Construction of the Proposed Project would result in temporary increases in ambient noise levels associated with the operation of heavy-duty construction equipment. Ventura County General Plan Policy 2.16.2-1(5), states that construction noise shall be evaluated and, if necessary, mitigated in accordance with the *Ventura County Construction Noise Threshold Criteria and Control Plan*. Several components of the Proposed Project would be constructed within unincorporated Ventura County. For the purposes of evaluating construction noise per the County's construction noise plan, Proposed Project construction noise levels at the nearest sensitive receptors were estimated using methods identified by the County and compared to the County construction noise threshold criteria (Ventura County, 2010).

As part of the CPUC's Permit to Construct application process, SCE provided noise level contour estimates for certain construction activities that would be associated with the Proposed Project (SCE, 2013; 2015). SCE's construction noise contour distance estimates are disclosed in **Table 5.13-3**. The table also includes the approximate distance from the proposed construction activity site to the closest sensitive receptor, as well as the local jurisdiction where the activity would occur. The noise contour distance estimates were independently reviewed by the CPUC's consultant, Environmental Science Associates (ESA) and were found to be adequate. The estimates are based on reference sound pressure levels at 50 feet, incorporate standard spherical spreading attenuation with ground and atmospheric absorption (no topography was assumed between the source and receiver), and account for equipment operating time factors. The percent of time that each piece of equipment would operate over the 10-hour work-day also represents the percent of time the equipment would operate over a 1-hour period (Arcadis, 2014). Therefore, SCE's estimated construction noise level contour distances represent noise levels in terms of both daily and 1-hour L_{eq} values.

As indicated in the table, the 75 dBA L_{eq} noise contour would occur at distances that range from 132 feet associated with tubular steel pole (TSP) erection, to 204 feet associated with conductor installation at stringing sites. In other words, the noise level associated with those construction activities would be at least 75 dBA L_{eq} within those contour distances. At the closest residences to TSP erection and stringing site activities at distances of approximately 450 feet and 550 feet, respectively, the L_{eq} noise level would be expected to range between 60 dBA and 65 dBA, and 65 dBA to 70 dBA, respectively.

TABLE 5.13-3
CONSTRUCTION ACTIVITY NOISE CONTOUR DISTANCES

Construction Activity (Local Jurisdiction)	Distance to Closest Sensitive Receptor*	dBA L_{eq} Contour Distance (feet)				
		75	70	65	60	55
Conductor Removal (Ventura County)	1,500 feet	183	327	572	975	1,610
Wood Pole Removal (Thousand Oaks)	550 feet	171	307	537	916	1,517
TSP Foundation Installation (Ventura County)	1,300 feet	173	309	539	924	1,534
TSP Foundation Installation (Thousand Oaks)	560 feet	173	309	539	924	1,534
TSP Erection (Ventura County)	450 feet	132	239	420	726	1,219
TSP Erection (Thousand Oaks)	450 feet	132	239	420	726	1,219
Conductor Installation at Stringing Site (Ventura County)	550 feet	204	364	630	1,067	1,757
Conductor Installation at Stringing Site (Thousand Oaks)	500 feet	204	364	630	1,067	1,757

* Distances estimated by ESA using Google Earth mapping software.
Source: Based on SCE, 2013 and 2014.

The construction noise contours data describe the construction noise levels that would be associated with the proposed conductor removal, wood pole removal, TSP foundation installation, TSP erection, and conductor installation at stringing sites. However, noise levels associated with other construction activities that would be associated with the Proposed Project, including stringing at TSP sites using a helicopter, stringing at TSP sites using bucket truck, activities at the helicopter land zones, and road rehabilitation work that would involve a backhoe, were not included in SCE's estimates. Therefore, to more completely disclose the noise-related effects of the Proposed Project, ESA estimated the 1-hour L_{eq} values that would be associated with each of these construction-related sources at the closest sensitive receptor locations, using the excess ground attenuation rate (7.5 dBA per doubling of distance) and the same reference noise levels and operating time factors for bucket trucks and backhoes as used for the SCE estimates (SCE, 2014).

For light-duty helicopter noise levels, a reference noise level of 83 dBA L_{max} for a Phillips 500 D helicopter hovering at 200 feet was obtained from the U.S. Department of Transportation's Integrated Noise Model, Version 7.0d. This maximum noise level was used to estimate noise levels associated with helicopter construction activity, under the assumption that helicopter operating time would be approximately 15 minutes per hour at TSP sites during sock line stringing and 15 minutes per hour at the helicopter landing zones related to helicopter landing and takeoff. At TSP sites it is assumed that the helicopter would hover approximately 250 feet above the ground surface during line sock stringing. As shown in **Table 5.13-4**, *Construction Noise Levels at Sensitive Receptor Locations,* construction noise levels associated with these construction activities at the closest sensitive receptor locations would range from 41 dBA for road rehabilitation work in the City of Thousand Oaks, to 71 dBA for helicopter landings and takeoffs at the helicopter landing zone in unincorporated Ventura County.

TABLE 5.13-4
CONSTRUCTION NOISE LEVELS AT SENSITIVE RECEPTOR LOCATIONS

Construction Noise Source (Local Jurisdiction)	Distance to Closest Sensitive Receptor[a]	1-hour L_{eq} at Closest Sensitive Receptor
Helicopter – Sock Line Installation at TSP Sites (Ventura County)[b]	200 feet	70 dBA
Bucket Truck - Conductor Installation at TSP Sites (Ventura County)[b]	200 feet	69 dBA
Bucket Truck - Conductor Installation at TSP Sites (Thousand Oaks)[b]	550 feet	58 dBA
Helicopter Landing Zone (Ventura County)[c]	350 feet	71 dBA
Helicopter Landing Zones (Moorpark)[c]	1,100 feet	59 dBA
Helicopter Landing Zones (Thousand Oaks)[c]	2,500 feet	50 dBA
Backhoe - Road Rehabilitation Work (Ventura County)[d]	200 feet	63 dBA
Backhoe - Road Rehabilitation Work (Thousand Oaks)[d]	1,500 feet	41 dBA

[a] Distances estimated by ESA using Google Earth mapping software. For helicopters at TSP sites, it is assumed that the helicopter would hover at 250 feet above the ground surface. Pythagorean theorem was used to estimate distance from the helicopter to the receptor with a 250-foot height and the lateral distance from the TSP site to the receptor.

[b] Helicopter 1-hour L_{eq} values near TSP locations are calculated assuming the helicopter would hover above the site at an elevation of approximately 250 feet above the ground surface for up to 15 minutes per pole.

[c] Helicopter 1-hour L_{eq} values are calculated assuming the helicopter would operate in the immediate vicinity of the helicopter landing zone for up to 15 minutes per hour.

[d] Backhoe 1-hour L_{eq} values are calculating assuming it would operate up to 36 minutes per hour.

SOURCE: ESA, 2015 based on SCE, 2013, 2014, and 2015.

The construction activities described in Tables 5.13-3, *Construction Activity Noise Contour Distances***,** and 5.13-4,*Construction Noise Levels at Sensitive Receptor Locations,* would take less than 3 days to complete at any given location, with the exception of activities at the helicopter landing zones and conductor installation at stringing sites, where construction-related activities are estimated to occur for periods of up to 2 weeks per site (SCE, 2015). Using the methods identified by the county (see Table 5.13-2, *Ventura County Construction Activity Noise Threshold Criteria*), it is anticipated that conductor installation activities at the stringing site north-northeast of the intersection of Hitch Boulevard and Ventavo Road, and helicopter landings and takeoffs at the helicopter landing zone near the end of Proposed Project Segment 2, would result in noise levels that would exceed the county's construction noise threshold criteria. Therefore, pursuant to Ventura County General Plan Policy 2.16.2-1(5), the Proposed Project would result in a significant, albeit temporary, impact.

As discussed in Chapter 3, *Project Description*, construction activities would normally occur between 7:00 a.m. to 7:00 p.m., Monday through Saturday. If SCE determines that different hours or work on Sunday is necessary, it would obtain variances from local noise ordinances, as necessary. Therefore, no impact would occur related to a potential noise ordinance violation. Although nighttime construction activities would not violate local ordinances if variances are obtained, nighttime construction activities in unincorporated Ventura County would likely exceed the *Construction Activity Noise Threshold Criteria* for nighttime construction sources depending

on the proximity of the nighttime construction activities to the closest unincorporated sensitive receptors, resulting in a significant impact.

Per APM NOI-1, SCE has committed to conducting or staggering construction activities to ensure that the noise generated during construction would not exceed the significance thresholds identified by the County; however, it is not clear how this would be achieved because SCE has identified no specific noise reduction measures as part of APM NOI-1. Therefore, implementation of Mitigation Measures 5.13-1a and 5.13-1b is recommended to require SCE and/or its construction contractors to reduce noise levels and the associated nuisance at sensitive receptor locations to the extent practical.

Mitigation Measure 5.13-1a: SCE and/or its contractors shall develop a Construction Noise Reduction Plan. The Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities. The Plan shall include, but not be limited to, the following measures for daytime construction activities:

- Distribute to the potentially affected community within 650 feet of the Stringing Site north-northeast of Hitch Boulevard and Ventavo Road, and the residence near the Helicopter Land Zone in unincorporated Ventura County, a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. All complaints shall be logged noting date, time, complainants' name, nature of complaint, and any corrective action taken.

- All construction equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof, to meet relevant noise limitations.

- Maintain maximize physical separation, as far as practicable, between noise sources (construction equipment) and noise receptors. Separation may be achieved by providing enclosures for stationary items of equipment and noise barriers around particularly noisy areas at the construction sites, and by locating stationary equipment to minimize noise impacts on the community.

- Use construction noise barriers such as paneled noise shields, barriers, or enclosures adjacent to or around noisy equipment associated with conductor stringing north-northeast of Hitch Boulevard and Ventavo Road. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield.

Mitigation Measure 5.13-1b: SCE and/or its contractors shall develop a Nighttime Noise and Nuisance Reduction Strategy plan in the event that nighttime construction activity is determined to be necessary within 1,000 feet of sensitive receptors. The plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities. The strategy shall include a set of site-specific noise attenuation measures that apply state-of-the-art noise reduction technology to ensure that nighttime construction noise levels and associated nuisances are reduced to the extent feasible.

The attenuation measures may include, but not be limited to, the control strategies and methods for implementation that are listed below. If any of the following strategies are determined by SCE to not be feasible, an explanation as to why the specific strategy is not feasible shall be included in the plan.

- Plan construction activities to minimize the amount of nighttime construction.
- Offer temporary relocation of residents within 200 feet of nighttime construction activities.
- Temporary noise barriers, such as shields and blankets, shall be installed immediately adjacent to all nighttime stationary noise sources (e.g., auger rigs, generators, compressors, etc.).
- Install temporary noise barriers that block the line of sight between nighttime activities and the closest residences within 1,000 feet.
- The notification requirements identified in Mitigation Measure 5.13-1a shall be extended to include residences within 1,000 feet of pending nighttime construction activities.

Although several components of Mitigation Measures 5.13-1a and 5.13-1b would likely reduce the annoyance that would be associated with loud construction activities, it is not possible to firmly substantiate that implementation of Mitigation Measures 5.13-1a and 5.13-1b would achieve the noise level reductions needed to mitigate the impact to a less-than-significant level. Therefore, even with these mitigation measures, daytime construction activities associated with at least one conductor stringing site and one helicopter landing zone would likely exceed the Ventura County construction noise threshold criteria, and nearly all nighttime construction activities within 1,000 feet of Ventura County sensitive receptors would continue to exceed the Ventura County construction noise threshold criteria. Therefore, the impact would be significant and unavoidable.

Significance after mitigation: Significant and unavoidable.

Construction Noise Municipal Codes

Local municipal codes restrict construction activities in unincorporated Ventura County to between the hours of 7:00 a.m. and 9:00 p.m., and in the City of Thousand Oaks and City of Moorpark to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. As discussed in Chapter 3, *Project Description*, construction activities would normally occur between 7:00 a.m. and 7:00 p.m. Monday through Saturday. There is a possibility that construction would be required during different hours or days; however, if SCE determines that different construction hours or days are necessary, it has committed to obtaining variances from local noise ordinances, as necessary. Therefore, no impact related to a violation of a local noise ordinance would occur (No Impact).

Operation

As explained in more detail under the Impact 5.13-2 discussion, there would be no operational impact in this regard because the Proposed Project's operational noise levels would be within the acceptable noise levels for residential uses as identified by the Ventura County General Plan, Thousand Oaks General Plan land use compatibility standards, and City of Moorpark noise limits for operational noise levels (No Impact).

b) Expose people to or generate excessive groundborne vibration or groundborne noise levels. (No Impact)

Construction

Temporary sources of groundborne vibration and noise during construction would result from operation of conventional heavy construction equipment such as drill rigs, bulldozers, and loaded haul trucks. These pieces of equipment can generate vibration levels of up to 0.09 inches per second (in/sec) at a distance of 25 feet. However, vibration levels attenuate rapidly from the source. Construction activities would occur as close as 200 feet from residences. At a distance of 200 feet, the vibration level would be up to 0.004 in/sec.

The PPV threshold of 0.20 in/sec identified by Caltrans (2004) is used in this analysis to determine the significance of vibration impacts related to adverse human reaction, and the FTA PPV threshold of 0.12 in/sec for buildings extremely susceptible to vibration damage is used to determine the significance of vibration impacts related to risk of architectural damage to buildings (FTA, 2006). Vibration levels at the closest residence locations would be well below these PPV thresholds. These groundborne vibration levels would not have the potential to cause structural damage to nearby buildings and would not be perceptible at residences or other sensitive uses in the immediate vicinity of construction activities.

Groundborne noise is the rumbling sound of structure surfaces caused by high vibration levels. Because construction of the Proposed Project would not result in exposure of persons to or generation of excessive groundborne vibration, it also would not expose them to or generate excessive groundborne noise levels. Consequently, there would be no groundborne noise-related impact associated with construction of the Proposed Project (No Impact).

Operation and Maintenance

Operation and maintenance of the Proposed Project would not introduce any new sources of perceivable groundborne vibration to the Proposed Project area. Therefore, there would be no operation-related vibration impacts. Because implementation of the Proposed Project would not result in exposure of persons to or generation of excessive groundborne vibration, it also would not expose them to or generate excessive groundborne noise levels. Consequently, there would be no groundborne noise-related impact associated with operation and maintenance of the Proposed Project (No Impact).

c) Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact 5.13-2: Operation and maintenance-related noise levels would contribute to ambient noise levels. *Less than significant* (Class III)

The primary noise sources from operation of the Proposed Project would be associated with corona discharge along the subtransmission line and general maintenance-related activities.

Corona Noise

The term corona is used to describe the breakdown of air into charged particles caused by the electrical field at the surface of a conductor. Audible noise levels generated by corona discharge vary depending on weather conditions as well as on the voltage of the line. Wet weather conditions often increase corona discharge due to accumulation of raindrops, fog, frost, or condensation on the conductor surface, which causes surface irregularities that promote corona discharge.

According to the Electric Power Research Institute (EPRI), noise levels 25 feet directly below 138 kV transmission lines under wet conditions tend to be approximately 37 dBA (EPRI, 1978). Noise levels under the Proposed Project conductors would be expected to be lower as the voltage would be 66 kV rather than 138 kV and the proposed conductors would likely sag to a minimum height that would be higher than 25 feet; nevertheless, for the purpose of this analysis the noise level of 37 dBA is used to represent worst case corona noise levels that would occur directly below the subtransmission line conductors. At the closest residences that would be approximately 70 feet from the subtransmission line, this maximum noise level would be approximately 31 dBA. Assuming an L_{eq} noise level of 31 dBA during all hours of the day, again a worst case assumption, the CNEL of the subtransmission line corona noise would be up to 38 dBA. These noise levels would be below the County's nighttime exterior L_{eq} standard of 45 dBA, the City of Thousand Oaks CNEL threshold of 55 dBA, and the City of Moorpark 55 dBA standard for the hours of 10:00 p.m. to 7:00 a.m.

The lowest ambient noise level measured along the Proposed Project alignment was approximately 44 dBA (see Table 5.13-2, *Ventura County Construction Activity Noise Threshold Criteria*); therefore, corona noise from the proposed subtransmission line would not be expected to increase ambient levels at sensitive receptor locations. Given that the proposed subtransmission line corona noise would not exceed noise standards established by the local jurisdictions and would not result in an increase to ambient noise levels in the vicinity of sensitive receptors, corona noise that could be associated with the Proposed Project would be less than significant (Class III).

Substation Noise

Transformer banks account for the majority of noise generated by substation operations. Transformer noise is caused, in part, by a phenomenon call magnetostriction, which causes the transformer to be magnetically excited and vibrate, producing a "humming" type sound. The Proposed Project would not require installation of new transformer banks or transformer bank

replacements, and the new equipment that would be installed at Moorpark and Newbury substations would not generate noise. Because the Proposed Project would not replace or install any noise-generating components within the substations, and because the transformer banks within the substations would not be replaced or upgraded, there would be no change in existing operational noise levels at the substations. Therefore, there would be no impact related to substation noise (No Impact).

Maintenance Noise

Maintenance activities would include annual visual inspections of the subtransmission line constructed as part of the Proposed Project as well as the access/spur roads that provide access to the TSPs and LWS pole sites. These activities would require use of a light duty truck and/or a helicopter, which would temporarily increase noise levels in the immediate vicinity of the Proposed Project area. These activities occur infrequently and are already occurring in the Proposed Project area related to inspections of the existing transmission and subtransmission lines. There would be no long-term notable maintenance-related noise level increases, and maintenance activities would not conflict with applicable noise ordinances or plans (No Impact).

Mitigation: None required.

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d) Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact 5.13-3: Construction-related nighttime noise levels would substantially increase ambient noise levels in the cities of Moorpark and Thousand Oaks. *Significant and unavoidable* (Class I)

As described under the Impact 5.13-1 discussion, construction of the Proposed Project would result in temporary increases to ambient noise levels associated with operation of heavy duty construction equipment. Tables 5.13-3,*Construction Activity Noise Contour Distances***,** and 5.13-4, *Construction Noise Levels at Sensitive Receptor Locations,* show that maximum construction-related noise levels at the closest sensitive receptor locations in the cities of Moorpark and Thousand Oaks would be less than 70 dBA L_{eq}, whereas ambient noise levels in the City of Moorpark near Los Angeles Avenue were measured to be 74 dBA L_{eq} and ambient noise levels at various locations in the City of Thousand Oaks were measured to be in the low to high 40-dBA L_{eq} range (see Table 5.13-1**,** *Measured Ambient 1-Hour Average Noise Levels At Sensitive Receptors*). Therefore, Proposed Project construction activities would increase ambient noise levels in the vicinity of the Proposed Project in the City of Thousand Oaks, and would potentially be perceived as a nuisance by the closest sensitive receptors. Proposed Project construction activities would not be expected to increase ambient noise levels at sensitive receptor locations in the City of Moorpark, given the already elevated ambient noise levels in the area.

Construction-related noise impacts that would occur in unincorporated Ventura County are presented in the Impact 5.13-1 discussion, above. Although there are no applicable local policies or standards available to judge the significance of short-term daytime construction noise levels in the

cities of Moorpark and Thousand Oaks, the FTA has identified a daytime hourly L_{eq} level of 90 dBA as a noise level where adverse community reaction could occur (FTA, 2006). This noise level is used here to assess whether daytime construction-related noise levels would cause a substantial temporary or periodic increase in ambient noise levels at sensitive receptor locations in the cities of Moorpark and Thousand Oaks. Although construction noise could result in a short-term nuisance to the closest sensitive receptors, given that the associated L_{eq} noise levels in the cities of Moorpark and Thousand Oaks would be less than 70 dBA L_{eq} and would not exceed the 90 dBA L_{eq} threshold, Proposed Project-related daytime construction activities in the cities of Moorpark and Thousand Oaks would result in less-than-significant impacts (Class III).

As discussed in Chapter 3, *Project Description*, construction activities would normally occur between 7:00 a.m. to 7:00 p.m., Monday through Saturday. If SCE determines that different hours or days are necessary, it would obtain variances from local noise ordinances, as necessary to avoid conflict with the City of Moorpark and City of Thousand Oaks noise ordinances. Although the ordinances would not be violated if variances are obtained, Proposed Project related nighttime construction noise levels could result in a substantial increase in nighttime ambient noise levels, causing a significant impact on nearby residences.

Mitigation: Implement Mitigation Measure 5.13-1b.

Significance after mitigation: Significant and unavoidable. Implementation of Mitigation Measure 5.13-1b would reduce the annoyance that would be associated with loud construction activities at night; however, the nighttime construction-related noise impact would continue to be significant.

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e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, expose people residing or working in the area to excessive noise levels. (No Impact)

The Proposed Project would not be located within an airport land use plan area nor would it be located within 2 miles of any public airport; therefore, no impact would occur (No Impact).

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f) For a project located in the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels. (No Impact)

The Proposed Project would not be located in the vicinity of a private airstrip; therefore, no impact would occur (No Impact).

5.13.5 Alternatives

No Project Alternative No. 1

Under No Project Alternative No. 1, the Proposed Project would not be implemented and all infrastructure previous installed for the project would remain in place; therefore, no noise or vibration impacts would occur (No Impact).

No Project Alternative No. 2

No Project Alternative No. 2 would generate no noise levels associated with helicopter activities or conductor stringing; however, noise levels would be generated from removal of previously installed TSPs and removal of TSP foundations in Segment 2. It is assumed that noise levels associated with these activities would occur over a period of 2 to 4 days at each TSP location and the noise levels would be similar to those described in Table 5.13-3, *Construction Activity Noise Contour Distances***,** for TSP erection. The closest residence to any of the TSP poles and foundations that would be removed would be at a distance of approximately 200 feet. At 200 feet, TSP and foundation removal noise levels would be expected to exceed 70 dBA L_{eq}, which would be the applicable Ventura County threshold given that activities at each pole site would be expected to occur for a period of up to 4 days. Therefore, this alternative would result in significant unavoidable impacts to sensitive receptors in unincorporated Ventura County for Impact 5.13-1, even with incorporation of Mitigation Measures 5.13-1a and 5.13-1b (Class I). Daytime construction-related impacts in the cities of Moorpark and Thousand Oaks would be less than significant (Class III). Although it is unlikely that No Project Alternative 2 would require nighttime construction (Impact 5.13-3), if it did, it would increase ambient noise levels in the cities of Moorpark and Thousand Oaks, and would potentially be perceived as a nuisance by the closest sensitive receptors, even after incorporation of Mitigation Measure 5.13-1b (Class I).

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5.14 Population and Housing

This section provides a description of population and housing for the Proposed Project area, and evaluates potential impacts associated with implementation of the Proposed Project and alternatives. Population and housing data and projections were obtained from the California Department of Finance (CDOF) and Southern California Association of Governments (SCAG).

5.14.1 Setting

Population

The Proposed Project and alternatives would be located within unincorporated Ventura County (the county) and the cities of Moorpark and Thousand Oaks. Ventura County is located in southern California, west of Los Angeles County. Over the past three decades, Ventura County has experienced steady growth. The county's population increased by approximately 21 percent in the 1980's, from 529,174 in 1980 to 669,016 in 1990 (CDOF, 2013). The 2000 population estimate was 753,197 persons, which further increased the population by approximately 11 percent. The county grew an additional 8 percent between 2000 and 2010, reaching an estimated 823,318 residents (CDOF, 2013). The incorporated cities of Moorpark and Thousand Oaks followed similar or greater population growth trends within the same time period. **Table 5.14-1,** *2014 Population Estimates in the Proposed Project Area***,** shows 2014 population estimates for Ventura County and the cities of Moorpark and Thousand Oaks.

TABLE 5.14-1
2014 POPULATION ESTIMATES IN THE PROPOSED PROJECT AREA

Population	Ventura County	City of Moorpark	City of Thousand Oaks
Total Population in 2014	842,967	35,172	129,039

SOURCE: CDOF, 2014.

Table 5.14-2, *Historic and Projected Population Growth in the Proposed Project Area*, shows historic and projected population growth in the Proposed Project area from 1980 to 2035; as demonstrated in the table, the populations in Ventura County and the cities of Moorpark and Thousand Oaks are expected to increase over the next 20 years.

Housing

According to the CDOF, at the beginning of 2014, Ventura County had an estimated 284,489 total housing units with a vacancy rate of approximately 5.1 percent and the vacancy rates in the cities of Moorpark and Thousand Oaks were 2.4 percent and 3.5 percent, respectively (CDOF, 2014). 2014 housing data for Ventura County and the cities of Moorpark and Thousand Oaks are shown in **Table 5.14-3**, *2014 Housing Data Estimates in the Proposed Project Area*.

TABLE 5.14-2
HISTORIC AND PROJECTED POPULATION GROWTH IN THE PROPOSED PROJECT AREA

Area	1980	1990	% Change 1980–1990	2000	% Change 1990–2000	2010	% Change 2000–2010	2020	% Change 2010–2020	2035	% Change 2015–2035
Ventura County	529,174	669,016	21	753,197	11	823,318	8	889,000	7	954,000	9
Moorpark	n.a.	25,494	n.a.	31,415	18	34,421	9	39,300	12	41,500	5
Thousand Oaks	77,072	104,352	26	117,005	11	126,683	7	129,700	2	130,900	.9

NOTES: n.a. = information not available. (The City of Moorpark was incorporated in 1983.)

SOURCES: CDOF, 2013; SCAG, 2012.

TABLE 5.14-3
2014 HOUSING DATA ESTIMATES IN THE PROPOSED PROJECT AREA

Area	Total Housing Units	Occupied Housing Units	Vacant Housing Units	Vacancy Rate (percent)
Ventura County	284,489	269,896	14,593	5.1
Moorpark	10,835	10,578	257	2.4
Thousand Oaks	47,788	46,117	1,671	3.5

SOURCE: CDOF, 2014,

As demonstrated in **Table 5.14-4**, *Household Estimates: 2008 to 2035*, the number of households in the cities of Moorpark and Thousand Oaks and in Ventura County is forecast to increase between 2008 and 2035 (SCAG, 2012).

TABLE 5.14-4
HOUSEHOLD ESTIMATES: 2008 TO 2035

Year	Ventura County	Moorpark	Thousand Oaks
2008	266,000	10,400	45,600
2020	292,000	12,000	46,100
2035	318,000	12,700	46,600

SOURCE: SCAG, 2012.

Regulatory Setting

Federal

No federal regulations pertaining to population and housing apply to the Proposed Project or alternatives.

State

Southern California Association of Governments

SCAG is a Joint Powers Agency established under California Government Code Section 6502 et seq. SCAG is designated as a Council of Governments, a Regional Transportation Planning Agency, and a Metropolitan Planning Organization for a six-county region that includes Ventura County. SCAG prepares a Regional Housing Needs Assessment (RHNA) for the region, which defines the housing need allocation for each member local government in Southern California. The most recently published RHNA covered the planning period of January 1, 2006, to June 30, 2014. The RHNA is a key tool for SCAG and its member governments to plan for growth (SCAG, 2014).

Local

California Public Utilities Commission (CPUC) General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to population and housing that would otherwise be relevant to the Proposed Project and alternatives are described below.

Ventura County General Plan

The following goals and policies identified in the Public Facilities and Services Element of the Ventura County General Plan would be relevant to the Proposed Project and alternatives (Ventura County, 2007):

> *Goal 4.1.1.1:* Plan for public facilities and services which will adequately serve the existing and future residents of the County.
>
> *Goal 4.5.1:* Promote the efficient distribution of public utility facilities and transmission lines to assure that public utilities are adequate to service existing and projected land uses, avoid hazards and are compatible with the natural and human resources.

City of Moorpark General Plan

The City of Moorpark General Plan does not include any applicable goals, objectives, or policies related to population and housing that would be relevant to the Proposed Project or alternatives (City of Moorpark, Various Dates).

City of Thousand Oaks General Plan

The City of Thousand Oaks General Plan does not include any applicable goals, objectives, or policies related to population and housing that would be relevant to the Proposed Project or alternatives (City of Thousand Oaks, 2001).

5.14.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant population and housing-related effects on the environment if it would:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

5.14.3 Applicant Proposed Measures

No applicant proposed measures have been identified by Southern California Edison (SCE) to reduce Proposed Project impacts associated with population and housing.

5.14.4 Impact Analysis

a) Induce substantial population growth in an area, either directly or indirectly.

Impact 5.14-1: Construction could indirectly induce population growth. ***Less than significant*** **(Class III)**

The Proposed Project does not include new homes or businesses, and so would not directly induce substantial temporary or permanent population growth in the area. Accordingly, the Proposed Project would have no direct impact on population growth inducement.

The Proposed Project could have an indirect impact on population growth in the area if it encouraged people to move to the area to obtain construction employment. During the approximately 10-month construction period, up to 217 construction workers per day could be employed during the peak of construction. Construction would be performed by either SCE construction crews or contractors. It is anticipated that all temporary positions would be filled from the local labor pool available in Ventura County, with workers expected to commute to the site rather than relocate. This could result in some need for temporary accommodation during construction, for instance, if workers were to engage in “weekly commuting” (staying in the local area during the work week and returning home on weekends). However, there are numerous hotels and motels near the Proposed Project alignment to accommodate the need. Proposed Project operation and maintenance would be handled by current SCE employees. No new permanent jobs would be created. Therefore, overall, employment generated by the Proposed Project would have a less-than-significant impact on population growth because any short-term lodging demand created during construction could be accommodated by existing units and no long-term growth would result from operation of the Proposed Project. Therefore,

implementation of the Proposed Project would not be expected to result in any significant increase to the local population or adverse effect on the housing market.

The Proposed Project also could have an indirect impact on population growth if it would extend infrastructure into the area that could accommodate growth. The Proposed Project is designed to allow SCE to continue to provide reliable electrical service in its electric needs area (ENA) (see Figure 3-2, *Electrical Needs Area*, in Chapter 3, *Project Description*, for an illustration of the ENA), and to meet forecasted demand. The Proposed Project's improvement in the reliability of electrical services is consistent with development anticipated by local plans and expected population growth. Furthermore, the availability of electrical capacity by itself does not normally induce growth within a particular area. Other factors such as economic conditions, land availability, population trends, availability of water supply or sewer services, and local planning policies have a more direct effect on growth. Accordingly, the Proposed Project would have a less-than-significant indirect impact on population growth associated with extension of infrastructure.

Mitigation: None required.

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b) Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere. (No Impact)

The Proposed Project would be constructed within existing rights-of-way (ROWs), easements, public ROWs, and on existing SCE "fee-owned" property (i.e., property which is currently legally owned by SCE) (SCE, 2014). The Proposed Project alignment generally traverses open space and agricultural areas. Other improvements would occur at the Moorpark and Newbury substations. Implementation of the Proposed Project would not displace any residential housing units. Therefore, the Proposed Project would have no impact with regard to the displacement of existing housing units, nor would it necessitate the construction of replacement housing elsewhere.

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c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. (No Impact)

As noted above, the Proposed Project would not displace any housing; it also would not displace people or any other structures that are occupied by people. Therefore, the Proposed Project would have no impact associated with the displacement of people or the construction of replacement housing.

5.14.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the Proposed Project would not be constructed; therefore, there would be no impact related to population and housing. Future demand in the ENA would not be adequately met. While this would jeopardize SCE's ability to provide reliable electric service to customers within the ENA, it would not result in impacts associated with population and housing (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and all of the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. Impacts associated with construction-period employment under No Project Alternative 2 would be similar to those of the Proposed Project because this alternative would require a similar construction workforce to remove previously constructed infrastructure. All removal of infrastructure would occur within the same existing SCE ROW, easements, fee-owned property, and public ROW as the Proposed Project. Future demand in the ENA would not be adequately met. Accordingly, No Project Alternative 2 would have a less-than-significant indirect impact on population growth related to temporary construction employment (Class III) and no impact related to directly inducing population growth, indirectly inducing population growth through the extension of electrical infrastructure, and the displacement of existing housing or people (No Impact).

References – Population and Housing

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5.15 Public Services

This section analyzes the impact of the Proposed Project and alternatives on the provision of public services within southeastern Ventura County, including unincorporated areas and the cities of Thousand Oaks and Moorpark. This section also identifies adverse physical impacts on the environment that could result from a need to provide new or physically altered public facilities, resulting from the Proposed Project and alternatives.

5.15.1 Setting

Fire Protection and Emergency Medical Services

State

The California Department of Forestry and Fire Protection (CAL FIRE) is responsible for fire protection within State Responsibility Areas (SRAs), including 31 million acres throughout California. In most cases, SRAs are protected directly by CAL FIRE. However, in some counties, such as Ventura County, fire protection within the SRA is provided by the county under contract with CAL FIRE. Contract counties are responsible for providing initial response to fires in the SRA. Depending on the scale and circumstances of the fire, CAL FIRE responds with firefighting resources to assist the county (CAL FIRE, 2012).

Local

The Ventura County Fire Department (VCFD) provides fire protection and medical services over 848 square miles and serves more than 480,000 residents and visitors including the unincorporated areas of Ventura County, as well as the cities of Moorpark and Thousand Oaks. Comprising 32 fire stations and 1,202 department employees, the VCFD responds to over 35,500 incidents a year providing fire protection, medical aid, rescue, hazardous materials response, and a variety of other services to the public. VCFD assets include 141 vehicles ranging from light patrol vehicles and fire engines to heavy equipment and specialized vehicles such as paramedic squads and search and rescue watercrafts. In 2013, VCFD responded to 25,653 emergency medical calls, 1,297 fires, 2,368 rescue calls, 3,921 public service calls, 1,515 alarms, and 737 calls involving hazardous materials, averaging 97 calls a day (VCFD, 2014a).

The nearest fire stations to the Proposed Project area include: Fire Station 42, located at 295 E. High Street in the City of Moorpark, approximately 1.5 miles northeast of Moorpark Substation; Fire Station 40, located at 4185 Cedar Springs Street in the City of Moorpark, approximately 1 mile southeast of Moorpark Substation; and Fire Station 35, located at 2500 W. Hillcrest Drive in the community of Newbury Park, approximately 0.7 mile south of Newbury Substation (VCFD, 2014b).

Police Protection

The Ventura County Sheriff's Department (VCSD) provides law enforcement services to unincorporated Ventura County and five contract cities including Moorpark and Thousand Oaks. Staffed by approximately 1,200 personnel, including 700 sworn positions, the VCSD comprises four primary divisions, including Patrol, Detention, Special Services, and Support Services (VCSO, 2014a). The Patrol Division includes a Mounted Unit, K-9 Unit, Sheriff's Communications Center, and the Office of Emergency Services. Service areas are patrolled by deputies 24 hours a day, 7 days a week. An additional overlapping patrol deputy is provided during peak hours (11:00 a.m. to 3:00 a.m.) 7 days a week (VCSO, 2014b).

The Proposed Project area would be served by three VCSD police stations. Segments 1 and 2 would be served by the Moorpark Police Station located at 610 Spring Road in the City of Moorpark, approximately 1.7 miles east of the Moorpark Substation. The City is divided into two primary beats which are patrolled by deputies 24 hours a day, 7 days a week. In addition to providing police services to the City of Moorpark, the Moorpark Police Station also provides police services to the unincorporated areas of Santa Rosa Valley, Moorpark Home Acres, Happy Camp, Fruitvale, Santa Susanna Knolls, Box Canyon, Tapo Canyon, Balcom Canyon, Bradley, Stockton, and Grimes Canyon. Segments 3 and 4 would be served by the East County Patrol Station and the City of Thousand Oaks Police Department, both located at 2101 East Olsen Road in the City of Thousand Oaks, approximately 6.5 miles northeast of Newbury Substation. While the City of Thousand Oaks Police Department is responsible for providing services within the city (VCSO, 2014b), the East County Police Station provides police services to unincorporated areas such as Lynn Ranch, Casa Conejo, Kelley Estates, Hidden Valley, Oak Park, and Bell Canyon (VCSO, 2014b and 2014c).

Parks

Parks and other recreational facilities within the Proposed Project area are managed by the Ventura County Parks Department; the Conejo Recreation and Park District; the Moorpark Parks, Recreation & Community Services Department; the Conejo Open Space Conservation Agency (COSCA); and the Pleasant Valley Park Department. See Section 5.16, *Recreation*, for additional discussion of recreational facilities, including parks in the vicinity of the Proposed Project.

Schools

According to the Ventura County Office of Education (VCOE), Ventura County's 21 public school districts provide education to a pre-kindergarten through 12th grade student population that currently exceeds 140,000 (VCOE, 2014). Public schools in the vicinity of the Proposed Project are operated by the Conejo Valley Unified School District (CVUSD) and the Moorpark Unified School District (MUSD). There are also a number of private schools in the area, including the following three within 0.25-mile of the Proposed Project:

- Conejo Adventist Elementary School, located at 12 Academy Drive in Thousand Oaks, approximately 0.19 mile southwest of Newbury Substation;

- Newbury Park Adventist Academy, a private high school located at 180 Academy Drive in Thousand Oaks, approximately 0.15 mile south of Segment 4, west of Newbury Substation; and,
- Passageway School, a special education school, located at 1153 Lawrence Drive in Thousand Oaks, approximately 0.08 mile south of Newbury Substation.

Moorpark Unified School District

The MUSD operates preschool programs, as well as five elementary schools, two middle schools, one comprehensive high school, and one alternative high school (MUSD, 2014). Segment 1 and portions of Segment 2 are located within the MUSD service area.

Conejo Valley Unified School District

The CVUSD operates several early childhood programs, as well as 17 elementary, five middle, three comprehensive high, and two alternative high schools (CVUSD, 2014). Segment 4, including Newbury Substation, and portions of Segment 3 are located within the CVUSD's service area.

Other Public Facilities

Libraries

The nearest libraries to the Proposed Project are the City of Thousand Oaks Newbury Park Branch Library, located at 331 Borchard Road in the community of Newbury Park, approximately 1 mile south of Newbury Substation, and the Moorpark City Library, located at 699 Moorpark Avenue in the City of Moorpark, approximately 1.3 miles east-northeast of Moorpark Substation.

Medical Facilities

There are two medical facilities serving the Proposed Project area that are located in the City of Thousand Oaks: the Los Robles Hospital and Medical Center is located at 215 West Janss Road, approximately 2.8 miles east of Newbury Substation; and the Newbury Park Urgent Care facility is located at 2080 Newbury Road in the City of Thousand Oaks, approximately 1 mile southeast of the Newbury Substation.

Regulatory Setting

Local

California Public Utilities Commission (CPUC) General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project. However, for informational purposes, the goals and policies of local general plans pertaining to public services that would otherwise be relevant to the Proposed Project and alternatives are described below.

Ventura County General Plan

The Ventura County General Plan identifies goals pertaining to protection of the public through effective law enforcement and emergency services, but does not contain goals or policies that set forth service ratios, response time goals, or other performance standards for public services that are relevant to this analysis (Ventura County, various dates).

City of Moorpark General Plan

The Moorpark General Plan does not include any goals or policies pertaining to public services that are relevant to the analysis of the Proposed Project or alternatives (City of Moorpark, various dates).

City of Thousand Oaks General Plan

The following policies identified in the Safety Element of the City of Thousand Oaks General Plan would be relevant to the analysis of public services (City of Thousand Oaks, 2014):

> *Policy D-2:* Continue to provide adequate fire protection and prevention services to meet the needs of the community and continue to support inter-jurisdictional fire protection agreements.
>
> *Policy D-6:* Continue to strive for 5-minute response time to all fire and life safety emergency responses.
>
> *Policy D-13:* Discourage the location of public facilities and above-ground utilities in extreme fire hazard areas. When unavoidable, special precautions should be taken to minimize potential impacts.

5.15.2 Significance Criteria

According to Appendix G of the California Environmental Quality Act Guidelines, a project would result in significant public services effects on the environment if it would:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new of 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 following public services:

   i. Fire protection;
   ii. Police protection;
   iii. Schools;
   iv. Parks; or
   v. Other public facilities.

5.15.3 Applicant Proposed Measures

Southern California Edison (SCE) has not identified any applicant proposed measures to reduce impacts on public services.

5.15.4 Impacts and Mitigation Measures

a) Result in substantial adverse physical impact 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:

i) *Fire protection. (No Impact)*

Proposed Project construction could result in emergency situations that require emergency response services, including fire protection. However, the Proposed Project would not introduce any new uses to the area that would generate long-term changes to or demand for fire protection services. SCE anticipates that construction of the Proposed Project would take approximately 10 months and require approximately 217 workers on any given day during peak construction activities. It is anticipated that all temporary positions would be filled from the local labor pool available in Ventura County, with workers expected to commute to the site rather than relocate. Since construction activities would be limited in duration and would require a small, local construction workforce, they would not increase long-term demand for fire protection services or impede the City of Thousand Oaks' general plan goal of achieving a 5-minute response time to calls for emergency service.

Once constructed, the subtransmission line would require routine maintenance, inspection, and vegetation management activities to be provided by SCE, but would not require additional personnel above existing staffing levels. As described in Chapter 3, *Project Description,* Section 3.7, vegetation would be maintained to facilitate emergency access and for fire prevention (e.g., maintenance for poles within wildland fire areas would include clearing of vegetation around the poles). Furthermore, the fire protection facilities and infrastructure required to protect the Proposed Project are already in place, and would not change as a result of the Proposed Project.

For the reasons described above, the Proposed Project would not require construction of new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times, or other performance standards (No Impact).

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ii) *Police protection. (No Impact)*

For the reasons described under criterion a) i), the Proposed Project would not introduce any new uses to the Proposed Project area that would generate long-term changes to, or demand for, police protection services.

Potential police protection service effects primarily would be limited to the construction period. If temporary lane closures are required for construction activities within public streets, police services may be necessary during closure periods. Temporary lane closures are discussed further in Section 5.17, *Transportation and Traffic*. Additionally, the subtransmission line and substations may require police response to potential trespassing. However, as described in Chapter 3, *Project Description*, exterior lighting and fencing at the construction staging areas at Moorpark Substation would reduce opportunities for trespassing, and the need for police services.

Although Proposed Project construction may result in increased demand for police services, such increase would not likely be substantial and would be temporary. Further, the Proposed Project would not or impede the City of Thousand Oaks' general plan goal of achieving a 5-minute response time to calls for emergency service. Therefore, the Proposed Project would not require construction of new or physically altered police protection facilities in order to maintain acceptable service ratios, response times, or other performance standards (No Impact).

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iii) *Schools. (No Impact)*

As previously described, Proposed Project construction is estimated to result in the employment of up to 217 workers, who are expected to commute to the Proposed Project sites from within Ventura County. Therefore, it is not expected that the Proposed Project construction workforce would relocate school-aged children into the service areas of the school districts near the Proposed Project. Also, as discussed in Section 5.14, *Population and Housing*, the Proposed Project would not result in substantial increases in the local population or demand for housing, which typically are associated with an increased demand for public school services. Therefore, the Proposed Project would not result in a substantial increase in demand for school facilities and would not require the construction of a new school or modification of an existing school, the construction of which could cause significant environmental effects (No Impact).

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iv) *Parks. (No Impact)*

For the reasons described in Section 5.16, *Recreation*, which describes the Proposed Project's potential impacts with respect to the accelerated deterioration of park facilities and the construction of new park facilities, the Proposed Project would not require the construction of new parks or modification of existing parks, the construction of which could cause significant environmental effects (No Impact).

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v) *Other public facilities. (No Impact)*

The Proposed Project would not result in substantial adverse impacts to other public facilities (e.g., public libraries, hospitals, or other civic uses) because, as discussed above, the Proposed

Project would not result in a significant increase in local population or housing, which would typically be associated with increased demand for such public facilities. Although unlikely, it is possible that Proposed Project construction could result in some increased use of other types of public services such as medical facilities and libraries. However, any such increase is not likely to be substantial and would not require the construction of new public facilities or modification of existing public facilities, the construction of which could cause significant environmental effects (No Impact).

5.15.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the Proposed Project would not be constructed and the demand for public services described in Section 5.15.1, *Setting*, would remain the same. Therefore, there would be no impact related to public services (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. Construction impacts associated with No Project Alternative 2 would be similar to those of the Proposed Project because this alternative would require construction activities within the same SCE right-of-way, and would require a similar, yet smaller, temporary construction workforce as the Proposed Project. Since construction activities would be temporary, lasting for a shorter duration than the Proposed Project, construction would not result in an increase in the local population, which would typically be associated with increased demand for public services and facilities. No Project Alternative 2 would not result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for any of the previously described public services (No Impact).

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5.16 Recreation

This section presents the environmental setting and potential impacts on parks, open space, and recreational resources that could result from construction, operation, and maintenance of the Proposed Project and alternatives.

5.16.1 Setting

Existing recreational and open space resources in the Proposed Project area are discussed below by managing agency.

National Parks

There are four national parks in Ventura County. The Santa Monica Mountains National Recreation Area is the closest to the Proposed Project area and is approximately 2.5 miles south of Newbury Substation (NPS, 2014).

State Parks

There are six state parks in Ventura County. Point Mugu State Park is the closest to the Proposed Project area and is approximately 10 miles southeast of Newbury Substation (CDPR, 2014).

Ventura County

The Ventura County Parks Department is responsible for the planning, development, maintenance, and operation of 20 recreational facilities throughout Ventura County (VCPD, 2014a). As identified in **Table 5.16-1**, *Parks within 1 Mile of the Proposed Project and Alternatives*, there is one county park near the Proposed Project area (VCPD, 2014b).

Conejo Recreation and Park District

The Conejo Recreation and Park District (CRPD) maintains over 50 parks covering over 1,000 acres with a variety of recreation amenities, including sports fields, picnic areas, and community centers in the City of Thousand Oaks and unincorporated Ventura County (CRPD, 2014a). As identified in Table 5.16-1, four of these parks are located in the vicinity of the Proposed Project (CRPD, 2014b).

Conejo Open Space Conservation Agency

The Conejo Open Space Conservation Agency (COSCA) is a joint powers agency that was formed between the City of Thousand Oaks and the Conejo Recreation and Park District. COSCA currently owns or manages over 11,300 acres of open space and maintains more than 140 miles of trails. COSCA's mission is to preserve, protect, and manage all of the natural resources that exist within the open space system (COSCA, 2014a). As identified in Table 5.16-1, there are five open space units in the vicinity of the Proposed Project (COSCA, 2014b).

TABLE 5.16-1
PARKS WITHIN 1 MILE OF THE PROPOSED PROJECT

Recreational Facility	Managing Agency	Distance From Proposed Project
Glenwood Park	City of Moorpark PRCSD	0.3 mile southeast of Moorpark Substation
Poindexter Park	City of Moorpark PRCSD	0.3 mile east of Moorpark Substation
Arroyo Vista Community Park	City of Moorpark PRCSD	0.5 mile southeast of Moorpark Substation
Tierra Rejada Park	City of Moorpark PRCSD	0.9 mile southeast of Moorpark Substation
Mountain Meadows Park	City of Moorpark PRCSD	0.8 mile south of Moorpark Substation
South Meadows Park	City of Moorpark PRCSD	0.8 mile south of Moorpark Substation
Villa Campesina Park	City of Moorpark PRCSD	0.8 mile southeast of Moorpark Substation
County Trail Park	City of Moorpark PRCSD	0.8 mile east of Segment 2
Peppertree Playfield	CRPD	1 mile southwest of Segments 3 and 4
Knoll Park	CRPD	0.8 mile southwest of Segment 3
Newbury Gateway Park	CRPD	1 mile southeast of Newbury Substation
Wildwood Regional Park	CRPD	1 mile east of Segments 2 and 3
Wildwood Open Space Unit	COSCA	1 mile east of Segments 2 and 3
Conejo Canyons West Open Space Unit	COSCA	Segments 3 and 4 traverse this unit
Vallecito Open Space Unit	COSCA	0.7 mile southwest of Segment 3
Old Conejo Open Space Unit	COSCA	0.6 mile southwest of Segment 3
Arroyo Conejo Open Space Unit	COSCA	0.9 mile northeast of Newbury Substation
Santa Rosa Valley Regional Park	VCPD	0.4 mile east of Segment 2
Camarillo Grove Park	PVRPD	1 mile west of Segment 3

NOTES: City of Moorpark Parks, Recreation & Community Services (City of Moorpark PRCSD); Conejo Recreation and Park District (CRPD); Conejo Open Space and Conservation Area (COSCA); Ventura County Parks Department (VCPD); Pleasant Valley Recreation and Park District (PVRPD).

SOURCES: CRPD, 2014b; COSCA, 2014b; VCPD, 2014b; City of Moorpark PRCSD, 2014b; and PVRPD, 2014.

The City of Moorpark

The City of Moorpark Parks, Recreation & Community Services Department (PRCSD) is responsible for the development, implementation, and promotion of all recreation activities in Moorpark, including 18 park sites totaling approximately 160 acres (City of Moorpark PRCSD, 2014a). As identified in Table 5.16-1, there are eight parks in the vicinity of the Proposed Project (City of Moorpark PRCSD, 2014b).

Pleasant Valley Recreation and Park District

The Pleasant Valley Recreation and Park District (PVRPD) maintains over 300 acres of parkland, open space, and recreation areas that provide a wide array of opportunities for residents within the City of Camarillo. As shown in Table 5.16-1, there is one PVRPD park near the Proposed Project area (PVRPD, 2014).

Regulatory Setting

Federal

No federal plans or policies concerning recreation apply to the Proposed Project or alternatives.

State

No state plans or policies concerning recreation apply to the Proposed Project or alternatives.

Local

California Public Utilities Commission General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project or alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to recreation that would otherwise be relevant to the Proposed Project and alternatives are described below.

Ventura County General Plan

The following goals and policies pertaining to recreation in the Ventura County General Plan are relevant to this analysis (Ventura County, 2013):

> *Goal 4.10.1-4.* Promote the multi-use of existing physical resources through coordination with other public and quasi-public agencies (i.e., utility easements, flood control easements, school district facilities, etc.).
>
> *Goal 4.10.1-7.* Ensure compatibility between recreation facilities and adjoining land uses.
>
> *Policy 4.10.2-1.* The County shall maintain and enforce the local parkland dedication requirements (Quimby Ordinance), to acquire and develop neighborhood and community recreation facilities. Parkland dedication shall be based on a standard of 5 acres of local parkland per 1,000 population, including neighborhood and community parks.
>
> *Policy 4.10.2-3.* Developers shall be encouraged to make unused open space available for recreation.

Conejo Canyons Open Space Management Plan

As discussed in Section 5.11, *Land Use and Planning*, the Conejo Canyons Open Space Management Plan (plan) is a comprehensive guide for the long-term management of the Conejo Canyons natural, cultural, and scenic resources while providing for compatible passive multi-use, trail-based recreational activities. The plan contains goals and policies for management of the area, but none that are relevant to the Proposed Project or alternatives (COSCA, 2009).

City of Moorpark General Plan

The City of Moorpark General Plan does not contain policies concerning recreation that would be relevant to the Proposed Project or alternatives (City of Moorpark, 1986).

City of Thousand Oaks

The City of Thousand Oaks General Plan does not contain policies concerning recreation that would be relevant to the Proposed Project or alternatives (City of Thousand Oaks, 2013).

5.16.2 Significance Criteria

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would result in significant recreation effects on the environment if it would:

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

5.16.3 Applicant Proposed Measures

Southern California Edison (SCE) has not identified any applicant proposed measures to reduce impacts on recreation.

5.16.4 Impacts and Mitigation Measures

Approach to Analysis

This impact analysis considers the potential recreation impacts associated with the construction, operation, and maintenance of the Proposed Project.

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Impact 5.16-1: Construction activities could result in adverse impacts to recreational areas. *Less than significant* (Class III)

In general, a project could increase the use of parks and other recreational facilities by increasing demand through inducing population growth, and/or by displacing use from one facility to another. As shown in Figure 5.1-1, approximately 1.4 miles of subtransmission line in Segment 3 would border the Conejo Canyons Open Space area, and approximately 0.9 mile in Segment 3 and 1 mile in Segment 4 would traverse the area, including portions of the Western Plateau and the Peninsula Loop Trails (COSCA, 2014c). However, these portions of the Proposed Project alignment would be located within SCE existing rights-of-way (ROW).

Direct effects would include construction equipment blocking access to trails for activities including tower removal, foundation and pole installation, and conductor stringing within the Proposed Project alignment. For example, the proposed construction laydown area located at poles 35 and 36, the stringing site near pole 40, and other construction activities in Segment 3 could impede access to the Western Plateau Trail and/or Peninsula Loop Trail. Indirect effects

would include visual impacts, exhaust emissions, and noise generated by construction equipment that could temporarily make the trails near the Proposed Project alignment less desirable and displace recreational users. As a result, the use of other trails in the park and other nearby recreational facilities could increase during the construction period as users are displaced from facilities along the Proposed Project alignment; however, the increase would be temporary. Construction generally would last several days near each pole location; conductor stringing activities would progress at a rate of approximately 3 days per mile of strung conductor. Therefore, the increased use of alternative recreational facilities due to the potential displacement of users would not be substantial, and so would not likely cause or accelerate any substantial physical deterioration of those facilities. Further, increases in demand for recreational facilities typically are associated with substantial increases in population. The Proposed Project would not include a residential component, nor would it induce population growth in the electrical needs area that would result in an increased use of existing recreational facilities. As discussed in Section 5.14, *Population and Housing*, approximately 217 construction workers would be required to construct the Proposed Project at its peak, and these workers are expected to commute from within Ventura County rather than relocate into the Proposed Project area. No new permanent staff would be needed. Impacts to recreational facilities from construction of the Proposed Project would be less than significant (Class III).

Operation and maintenance of the Proposed Project would be similar to operations and maintenance of existing facilities in SCE's ROW, and would require only a minor increase in activity above existing levels. Proposed Project operation and maintenance would not result in a measurable change in the existing level of use at neighborhood and regional parks or other recreational facilities, and so would not cause or accelerate any substantial physical deterioration of those facilities (No Impact).

Mitigation: None required.

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b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. (No Impact)

The Proposed Project does not include recreational facilities, nor would it require the construction or expansion of recreational facilities. As described under criterion a), the Proposed Project would not induce population growth, and so would not affect the County of Ventura's General Plan policy of providing 5 acres of local parkland per 1,000 people. Therefore, the Proposed Project would not result in any adverse physical effects on the environment from construction or expansion of additional recreational facilities (No Impact).

5.16.5 Alternatives

No Project Alternative 1

If No Project Alternative 1 is implemented, the Proposed Project would not be constructed, and the demand for recreational facilities described in subsection 5.16.1, *Setting*, would remain the same. Therefore, there would be no impact related to recreation (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. Construction impacts associated with No Project Alternative 2 would be similar to those of the Proposed Project because this alternative would require construction activities within the same SCE ROW, potentially requiring temporary trail closures, and could make adjacent recreational areas less appealing to users. However, No Project Alternative 2 would include less work in the Conejo Open Space area, and would result fewer trail closures in this location. No Project Alternative 2 would have a similar temporary construction workforce in the Conejo Open Space area as the Proposed Project and would last a slightly shorter amount of time than the Proposed Project. Therefore, construction would not result in an increase the local population, the need which would typically be associated with increased use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated. Impacts to recreational facilities from construction of No Project Alternative 2 would be less than significant (Class III). Furthermore, No Project Alternative 2 would not include construction or expansion of recreational facilities which might have an adverse physical effect on the environment (No Impact).

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5.17 Transportation and Traffic

This section presents the environmental setting and impact analysis for transportation facilities associated with the Proposed Project and alternatives. The purpose of this section is to assess the impacts of the Proposed Project and alternatives on traffic operations and other transportation modes in the surrounding area during construction, operation, and maintenance activities.

5.17.1 Setting

Environmental Setting

Streets and highways serve as the dominant system of transportation in Ventura County, and in the cities and communities within the county. Other transportation systems in the county and its communities include mass transit, bicycle routes, rail service, and air transportation. The discussions in the following sections are focused on geographical areas near components of the Proposed Project and alternatives (e.g., the City of Moorpark and City of Thousand Oaks) as well as areas through which Proposed Project- or alternative-related vehicles would travel (e.g., unincorporated portions of Ventura County).

Regional Roadways

The Proposed Project would be constructed and operated within two existing Southern California Edison (SCE) utility rights-of-way (ROWs) in the southeastern portion of Ventura County. The Proposed Project alignment is located between two incorporated cities (i.e., Moorpark and Thousand Oaks). Regional access to the study area is provided by State Route (SR) 23, U.S. Highway 101 (U.S. 101), and SR 118. Below are summary descriptions of each of these regional roadways. The northern portion of Proposed Project Segment 2 near Moorpark Substation would cross SR 118; the southern portion of Segment 2 would cross Santa Rosa Road. No other components of the Proposed Project cross a major street or highway.

SR 23 is a north-south state highway that connects the cities of Moorpark and Thousand Oaks. In the vicinity of the study area, SR 23 is a six-lane freeway (Moorpark Freeway) that changes to a four-lane (West Los Angeles Avenue), then a two-lane (Moorpark Avenue) surface highway. SR 23 between U.S. 101 and SR 118 has an annual average daily traffic (AADT) level that ranges from 65,000 to 107,000 vehicles (Caltrans, 2014). The AADT on four-lane SR 23 between Moorpark Freeway and Moorpark Avenue is about 30,500 vehicles (Caltrans, 2014).

U.S. 101 is a major west-east freeway that passes through the City of Thousand Oaks, with an interchange with SR 23. The AADT along U.S. 101 between Hampshire Road (east of SR 23) and North Wendy Drive (west of SR 23) ranges from 141,000 to 189,000 vehicles (Caltrans, 2014).

SR 118 is a west-east highway that passes through the City of Moorpark. It traverses the City of Moorpark (as West Los Angeles Avenue) and connects with SR 23 (as Ronald Reagan Freeway) near the west border of the City of Moorpark. From this connection, SR 118 overlaps with SR 23 and heads east towards the City of Simi Valley as Ronald Reagan Freeway. The AADT along

SR 118 (West Los Angeles Avenue) between Moorpark Substation and the SR 23 freeway ranges from 20,200 to 35,000 vehicles (Caltrans, 2014).

Santa Rosa Road is a west-east two-lane thoroughfare that bisects the Santa Rosa Valley. Santa Rosa Road connects the City of Camarillo with the City of Thousand Oaks. Santa Rosa Road is maintained by Ventura County and has an average weekday traffic level of 19,900 vehicles west of Moorpark Road (Ventura County, 2013).

Local Roadways

The local roadways that may be used to access the study area are generally two- to four-lane roads providing access to local and regional areas. Some of the roads would be affected during line stringing activities over the roads, while others would be used for access throughout the construction phase of the Proposed Project or an alternative.

Existing Levels of Service

The flow of vehicle traffic is frequently described using the level of service (LOS) scale, which is a measurement of operational characteristics of traffic flow on a roadway or at the intersection of roadways, based on traffic volumes and facility type. Traffic operations are assessed using grades ranging from LOS A to LOS F, with LOS A (free flow) representing the highest (best) level of service in terms of travel speed, delay, maneuverability, driver comfort, and convenience, and LOS F (forced or breakdown flow) representing the lowest (worst) level of service (Ventura County, 2009).

The 2009 Ventura County Congestion Management Plan (CMP) contains the following information regarding traffic on state, county, and local roadways in Ventura County (see **Table 5.17-1**, *Current Level of Service (LOS) At CMP-Monitored Intersections that May Be Used during Construction and Operations*, for current LOS conditions at CMP-monitored intersections in the Proposed Project area).

- **SR 23**. Traffic conditions on the freeway section have improved with the widening of the freeway in 2008. No LOS data is available; the CMP reports that the LOS is "likely OK" on the southern portion of SR 23.
- **U.S. 101**. From Westlake Boulevard / SR 23 (in the vicinity of the Thousand Oaks Service Center) to the North Wendy Drive exit (in the vicinity of Newbury Substation), U.S. 101 operates at LOS D, E, or F during both the a.m. and p.m. peak hours.
- **SR 118**. At its junction with SR 23, SR 118 operates at LOS D or E during both the a.m. and p.m. peak hours. West of its junction with SR 23 (in the vicinity of Moorpark Substation), SR 118 operates at LOS C (a.m. peak hours) and LOS E (p.m. peak hours).
- **County of Ventura**. All CMP-monitored intersections that may be traversed by vehicles that would be associated with the Proposed Project or an alternative operate at LOS D or better.
- **City of Moorpark**. All CMP-monitored intersections that may be used by vehicles that would be associated with the Proposed Project or an alternative operate at LOS D or better;

the intersection closest to Moorpark Substation (Tierra Rejada Road and SR 118) operates at LOS B throughout the day.

- **City of Thousand Oaks**. All CMP-monitored intersections that may be used by vehicles that would be associated with the Proposed Project or an alternative operate at LOS C or better; the intersections closest to Newbury Substation (Rancho Conejo Boulevard and West Hillcrest Drive) operate at LOS A or B throughout the day.

TABLE 5.17-1
CURRENT LEVEL OF SERVICE (LOS) AT CMP-MONITORED INTERSECTIONS THAT MAY BE USED DURING CONSTRUCTION AND OPERATIONS

Intersection	Vicinity of or enroute to…	A.M. Peak	P.M. Peak
Hampshire Road and U.S. 101	Thousand Oaks Service Center	A	C
Borchard Road and U.S. 101	Newbury Substation	C	B
Rancho Conejo Boulevard and West Hillcrest Drive	Newbury Substation	A	B
Tierra Rejada Road and SR 118	Moorpark Substation	B	B
Tierra Rejada Road and SR 23	Moorpark Substation	A-C*	D
Tierra Rejada Road and Moorpark Road	Moorpark Substation	D	D

* Northbound SR 23 ramps operate at LOS A; southbound SR 23 ramps operate at LOS C.

SOURCE: Ventura County, 2009

Commercial Traffic

Commercial transportation of goods and materials in the area of the Proposed Project is largely accomplished by truck. SR 23 and SR 118 are part of the California Department of Transportation's (Caltrans') truck network and designated for the passage of large trucks. SR 23 and SR 118 have been designated by Caltrans as Terminal Access routes, meaning that large trucks (semi-truck/trailer combinations and trucks with double trailers) can travel these roadways. U.S. 101, the primary west-east highway in the area of the Proposed Project, is a National Network highway designated for the movement of commercial vehicles. No truck routes are designated by the City of Moorpark or the City of Thousand Oaks.

Mass Transit

Public transit/bus service in the vicinity of the Proposed Project is found at the northern and southern ends of the Proposed Project in the cities of Moorpark and Thousand Oaks. The Ventura Intercity Service Transit Authority operates bus service between the cities of San Buenaventura (Ventura) and Thousand Oaks and Moorpark, Moorpark City Transit operates two routes within that city, and Thousand Oaks Transit operates four routes within that city. None of these routes runs adjacent to or across any Proposed Project Segment. Unscheduled bus services are provided by Thousand Oaks Dial-A-Ride and Moorpark American's with Disabilities Act (ADA) and Senior Dial-A-Ride. Private bus services also operate in the area (Ventura County, 2009).

Bicycle Routes

Bikeways are found throughout the cities of Moorpark and Thousand Oaks. Bicycle facilities take different forms: bike paths are paved trails that are separated from the roadways (Class 1); bike lanes are lanes on roadways that are designated for use by bicycles by striping, pavement legends, and signs (Class 2); and bike routes are roadways that are designated for bicycle use, but do not have additional width for bicycle lanes (Class 3). No component of the Proposed Project or alternatives would cross a bikeway. The multipurpose trails on lands managed by the Conejo Open Space Conservation Agency (COSCA), through which Proposed Project Segments 3 and 4 would be routed, are used by mountain bikers.

Rail Service

An active rail line is located proximate to the northern side of Moorpark Substation. Freight rail service is provided by Union Pacific Railroad, which operates an average of up to 13 freight trains on its Coast Main Line each day. These include both through trains (moving through the area, but not stopping) and trains serving local customers. Passenger rail service is provided by Metrolink and Amtrak. Metrolink operates six passenger trains daily through the Proposed Project area, and Amtrak operates ten daily Pacific Surfliner trains (with stops in Moorpark) and two Coast Starlight long-distance trains (that do not stop in the Proposed Project area).

Air Transportation

There are two public-use airports in the general vicinity of the Proposed Project and alternatives: Camarillo Airport is located approximately 7 miles west of Segment 3, and Santa Paula Airport is located approximately 9.5 miles northwest of Segment 2.

SCE owns and operates a heliport located at Moorpark Substation. Three other privately-operated helipads are located about 1 mile east, 3 miles south, and 3 miles northeast of Newbury Substation.

Regulatory Setting

Federal

Hazardous Materials Transportation Act of 1974 (49 U.S.C. § 1801 et seq.)

This act directs the United States Department of Transportation (USDOT) to establish criteria and regulations regarding safe storage and transportation of hazardous materials. The Hazardous Materials Regulations promulgated by USDOT (49 CFR §171.1 et seq.) address transportation of hazardous materials, types of materials defined as hazardous, and the marking of vehicles transporting hazardous materials. Additionally, the Motor Carrier Safety Regulations (49 CFR §390.1 et seq.) specify safety considerations for the transport of hazardous materials over public roadways.

Federal Aviation Administration Regulations (14 CFR 77.9)

Federal Aviation Administration (FAA) regulation 14 CFR 77.9, Construction or alteration requiring notice, states in part: “If requested by the FAA, or if you propose any of the following

types of construction or alteration, you must file notice with the FAA….” The Section contains a list of the types of construction or alterations of existing structures for which a notice must be filed with the FAA. The Section also lists notice exemptions, including exemptions applicable to, among other things, certain objects that would be shielded by existing structures.

State

The California Vehicle Code contains statutes pertaining to licensing, size, weight, and load of vehicles operated on highways; safe operation of vehicles; and the transportation of hazardous materials. Caltrans is the administering agency which implements these vehicle-related laws through additional regulations and licensing activities. Caltrans manages the state’s highway and freeway system, provides inter-city rail services, permits public-use airports and special-use hospital heliports, and works with local agencies to improve mobility.

An encroachment permit must be obtained from a local Caltrans District 7 Office for all proposed activities for placement of encroachments within, under, or over the state highway ROWs. Some examples of work requiring an encroachment permit are utilities, excavations, and driveways. Only Caltrans has authority to approve and issue permits for activities on Caltrans’ ROW. Authority for Caltrans to control encroachments within the state highway ROWs is contained in the Streets and Highways Code Section 660 et seq.

Local

Per California Public Utilities Commission (CPUC)-adopted General Order (GO) 131-D, local jurisdictions are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to CPUC’s jurisdiction, but in locating such projects, the public utilities shall consult with local agencies regarding land use matters. As such, the following local regulations are included for informational purposes only.

Ventura County General Plan

The Ventura County General Plan contains a number of goals and policies related to transportation and traffic:

4.2.1 Goals

1. Facilitate the safe and efficient movement of persons and goods by encouraging the design, construction, and maintenance of an integrated transportation and circulation system consisting of regional and local roads, bus transit, bike paths, ridesharing, rail transit and freight service, airports, and harbors.

2. Facilitate the safe and efficient movement of persons and goods by designing, constructing, and maintaining a Regional Road Network and Local Road Network that is consistent with the county road standards and that will function at an acceptable Level of Service (LOS).

7. Promote the expansion of a safe, efficient, convenient, integrated, and economical community, intercommunity, and countywide bus transit system.

8. Encourage transit providers and the Ventura County Transportation Commission to increase ridership and meet the needs of the commuting public and the special transportation needs of the elderly, school children, low income, physically handicapped, other low mobility groups, and bicyclists.

9. Encourage the use of bicycling and ridesharing (e.g., carpooling, vanpooling, and bus pooling) as a percentage of total employee commute trips throughout the county in order to reduce vehicular trips and miles traveled and consequently vehicular emissions, traffic congestion, energy usage, and ambient noise levels.

10. In cooperation with the ten cities and the Ventura County Transportation Commission, plan a system of bicycle lanes and trails linking all county cities, unincorporated communities, and California State University—Channel Islands.

4.2.2 Policies

3. The minimum acceptable Level of Service (LOS) for road segments and intersections within the Regional Road Network and Local Road Network shall be as follows:

    (a) LOS D for all County thoroughfares and Federal highways and State highways in the unincorporated area of the county, except as otherwise provided in subparagraph (b)

    (b) LOS E for SR 33 between the northerly end of the Ojai Freeway and the City of Ojai, Santa Rosa Road, Moorpark Road north of Santa Rosa Road, SR 34 north of the City of Camarillo, and SR 118 between Santa Clara Avenue and the City of Moorpark

    (c) LOS C for all County-maintained local roads

    (d) The LOS prescribed by the applicable city for all Federal highways, State highways, city thoroughfares and city-maintained local roads located within that city, if the city has formally adopted General Plan policies, ordinances, or a reciprocal agreement with the County (similar to Policies 4.2.2-3 through 4.2.2-6) respecting development in the city that would individually or cumulatively affect the LOS of Federal highways, State highways, County thoroughfares and County-maintained local roads in the unincorporated area of the County.

At any intersection between two roads, each of which has a prescribed minimum acceptable LOS, the lower LOS of the two shall be the minimum acceptable LOS for that intersection (Ventura County, 2011).

Ventura County Transportation Commission

The Ventura County Transportation Commission (VCTC) is the designated Congestion Management Agency (CMA) for Ventura County responsible for coordinating land use, transportation planning, and air quality concerns associated with traffic congestion. The VCTC has prepared the Ventura County CMP to provide the resources necessary to positively affect traffic congestion throughout Ventura County. Among other things, the Ventura County CMP requires a local agency to prepare and submit a deficiency plan when the LOS on a road segment or at an intersection on the CMP network drops to LOS F (Ventura County, 2009).

Ventura County Code of Ordinances, Division 12, Highway Encroachments

Division 12 of the Ventura County Code of Ordinances contains the definitions of encroachments and the procedures for encroaching on a highway. Section 12152 notes that "[a]ll encroachments shall be planned and executed in such a manner that they will not unreasonably interfere with the safe and convenient travel of the general public."

City of Moorpark General Plan

The Circulation Element of the City of Moorpark General Plan, adopted in 1992, addresses the circulation facilities needed to provide adequate roadway capacity, public transit services, and opportunities for other modes of transportation. The Circulation Element contains seven goals and numerous policies, including (City of Moorpark, 1992):

> *Goal 2:* Provide a circulation system which supports existing, approved and planned land uses throughout the City while maintaining a desired level of service on all streets and at all intersections.
>
> *Policy 2.1*: Level of service "C" shall be the system performance objective for traffic volumes on the circulation system. For roadways and interchanges already operating at worse than LOS C, the system performance objective shall be to maintain or improve the current level of service.
>
> *Goal 4*: Provide a public transportation system which serves the needs of persons living in and/or working in the City of Moorpark.
>
> *Policy 4.1*: Participation in a public transit system that provides a means of intra-city and inter-city transportation, as a logical alternative to automobile transportation, should be developed or maintained.
>
> *Goal 5*: Provide a citywide system of safe, efficient and attractive bicycle and pedestrian routes for commuter, school, and recreational use.

City of Thousand Oaks Plan

The City of Thousand Oaks has prepared a set of general goals and policies as they relate to transportation, including the following Circulation Policies (City of Thousand Oaks, 2012):

- A mass transit system to provide City and area-wide circulation and meet community needs should be maintained and enhanced.
- A variety of transportation modes should be encouraged.
- A City-wide system of pedestrian and bicycle facilities that provide safe, continuous accessibility to all residential, commercial and industrial areas, to the trail system and to the scenic bike route system shall be provided and maintained.
- The City shall maintain LOS C on all roads and at all intersections. Lower levels of service may be tolerated to preserve or enhance landscaping and aesthetic integrity.

5.17.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project would result in significant transportation and traffic effects on the environment if it would:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that would result in substantial safety risks;

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);

e) Result in inadequate emergency access; or

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

5.17.3 Applicant Proposed Measures

SCE has proposed the following applicant proposed measure (APM) to minimize impacts associated with transportation and traffic that could be caused by the Proposed Project (SCE, 2013). The impact analysis assumes that the APM would be implemented (i.e., part of the Proposed Project).

> **APM TRA-1: Traffic Control.** Construction activities completed within public street ROWs may require the use of a traffic control service, and lane closures conducted in accordance with local ordinances and city permit conditions. Traffic control measures used are consistent with those published in the California Joint Utility Traffic Control Manual (California Inter-Utility Coordinating Committee 2010) or local jurisdictional requirements.
>
> As discussed in Section 4.16, during the past activities, traffic control measures were not needed due to the location and type of work conducted. During future construction activities, SCE would implement recommendations contained in the CJUTCM, including consulting and coordinating with local jurisdictions, to ensure the safe and efficient transit of vehicles, bicyclists, and pedestrians through laydown/work areas.

5.17.4 Impacts and Mitigation Measures

Approach to Analysis

According to the CEQA Guidelines, a project would normally result in an impact to transportation and traffic if it would cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. Occasional post-construction maintenance activities involving fewer than 15 vehicle trips (30 one-way trips) per month would briefly affect only local segments. Therefore, long-term operational impacts would be inconsequential, and the analysis presented herein focuses on temporary impacts during construction of the Proposed Project.

The duration of potentially significant impacts related to short-term disruption of traffic flow and increased congestion generated by construction vehicles, and/or loss of a travel lane to accommodate the construction work zone, would be limited to the period of time needed to complete construction of a Proposed Project component. Therefore, mitigation measures identified below focus on reducing the short-term construction effects of the Proposed Project. Short-term impacts associated with transportation and traffic would result from increases in traffic volumes, temporary loss of travel lanes, and potential safety effects.

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

Impact 5.17-1: Construction, operation, and maintenance could adversely affect traffic and transportation conditions. *Less than significant* (Class III)

Construction Impacts

Construction activities that would be associated with the Proposed Project would include the movement of light-, medium-, and heavy-duty vehicles (including oversize vehicles such as cranes) over U.S. 101, SR 23, and/or SR 118, and local roads maintained by the cities of Moorpark and Thousand Oaks, and Ventura County. Proposed Project-related vehicles and equipment would generally travel from local temporary staging yards or contractor yards to work sites in the morning, returning to their points of departure in the evening. Based on a conservative assumption of simultaneous construction activities, SCE has estimated that construction of the Proposed Project would generate a maximum of approximately 180 daily vehicle trips. The 180 daily vehicle trips would include commute trips by 70 workers (two per day between home and the work site), and 40 one-way construction truck trips per day (SCE, 2013). The actual number of daily vehicle trips may be lower depending on the final construction schedule, but the maximum number of daily vehicle trips is used here to ensure that potential impacts are not understated.

Proposed Project construction activities (e.g., stringing of conductor) would require temporary lane closures; closures may be necessary on Santa Rosa Road, Hitch Boulevard, and on West Los Angeles Avenue (SR 118). Temporary closure of travel lanes could adversely affect the performance of the circulation system, including but not limited to intersections, streets, highways and freeways, railroad tracks, pedestrian and bicycle paths, and mass transit. SCE would obtain encroachment permits from the local jurisdictions, Union Pacific Railroad, and Caltrans, as appropriate, for construction activities that would encroach within any public ROW or easement. In addition, pursuant to APM TRA-1, SCE would implement recommendations contained in the CJUTCM, including consulting and coordinating with local jurisdictions, to ensure the safe and efficient transit of vehicles, trains, bicyclists, and pedestrians through laydown and work areas.

The above-described construction-generated traffic would be temporary and therefore would not result in long-term degradation in operating conditions on area roadways. Proposed Project-generated truck trips would be spread over the course of the work day, and construction workers would commute to and from the worksite primarily before or after peak traffic hours. Proposed Project-generated traffic (trucks and worker vehicles) would increase the daily traffic volume on the U.S. 101, SR 23, and SR 118 freeways by no more than about 0.3 percent, which would not be substantial relative to existing traffic conditions, and Proposed Project traffic would not significantly disrupt traffic flow. While the increase in traffic volume on local roads (including the surface highway portions of SR 23 and SR 118) and at local intersections within the cities of Moorpark and Thousand Oaks and unincorporated Ventura County (including those identified in Table 5.17-1) would be noticeable, these local facilities would have sufficient carrying capacity to accommodate the added traffic during the construction period. The primary impact from construction truck traffic would be a temporary and intermittent reduction of roadway capacities due to the slower movements of trucks compared to passenger vehicles. Drivers could experience delays if they were traveling behind a construction truck.

Based on the number of vehicle trips generated by construction, and the implementation of recommendations contained in the CJUTCM, construction-related traffic would not conflict with any traffic plans, ordinances, or policies that establish measures of effectiveness for the performance of the circulation system. Therefore, the impact would be less than significant.

Operation and Maintenance Impacts

Components of the Proposed Project would be primarily unstaffed during operations. Electrical equipment would be remotely monitored and controlled by an automated system. However, SCE personnel would visit the Proposed Project components for routine or emergency repair or maintenance purposes, and infrastructure along the Proposed Project segments would be inspected at least once annually. The estimated number of vehicle trips associated with normal operation of the Proposed Project would be fewer than 15 per month; therefore, impacts to the current circulation system would be less than significant, and the Proposed Project would not create any inconsistency or conflict with an applicable plan, ordinance, or policy that establishes measures of effectiveness.

Mitigation: None required.

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b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Impact 5.17-2: Operation and maintenance could cause traffic congestion. *Less than significant* (Class III)

The Proposed Project is located in Ventura County and the cities of Moorpark and Thousand Oaks. Both cities have established LOS standards, and the VCTC has adopted in the Ventura County CMP a minimum LOS standard of "E" for the CMP road network. The Ventura County CMP is intended to monitor and address long-term traffic impacts due to future development and that does not apply to temporary impacts associated with construction projects (like the Proposed Project), which are transitory in nature. As described above, components of the Proposed Project would be primarily unstaffed during operations. SCE personnel would visit Proposed Project components for routine or emergency repair or maintenance purposes, and infrastructure along the Proposed Project segments would be inspected at least once annually. The estimated number of vehicle trips associated with normal operation and maintenance of the Proposed Project would be fewer than 15 per month. That level of increased traffic would not alter an existing LOS or interfere with the performance standards of any applicable CMP or other standards established by the applicable jurisdiction. Therefore, the impact would be less than significant.

Mitigation: None required.

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c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that would result in substantial safety risks.

Impact 5.17-3: Changes in air traffic patterns and increased air traffic levels could result in safety risks. *Less than significant* (Class III)

Construction Impacts

As discussed in the setting, there are two public-use airports in the general vicinity of the Proposed Project: Camarillo Airport is located approximately 7 miles west of Segment 3, and Santa Paula Airport is located approximately 9.5 miles northwest of Segment 2. In addition, SCE owns and operates a heliport at Moorpark Substation, and there are three other privately-operated helipads located about 1 mile east, 3 miles south, and 3 miles northeast of Newbury Substation.

Federal Aviation Regulation (FAR) Part 77 regulates structure heights near airports through established threshold heights of protected air space. These surfaces are defined by horizontal

planes above specific ground elevations and or sloped planes at specific ratios. The overall intent of protected air space is to protect airplanes and structures from interface hazards.

All construction activities would be conducted in an existing utility ROW or easement where subtransmission and transmission structures already exist. The alignment of some of the Proposed Project infrastructure and terrain in the region requires Federal Aviation Administration (FAA) notification due to the height above ground of the conductor at certain locations. Marker ball spacing would be in accordance with FAA Advisory Circular AC 70/7460-1K, and markers would be spaced equally along the wire at intervals of approximately 200 feet or a fraction thereof (SCE, 2014). The specific number of marker balls required for each identified span would be based on FAA's determination for the Proposed Project. Per FAA guidance, marker balls would be displayed on the highest wire or by another means at the same height as the highest wire (SCE, 2014). The installation of new poles and infrastructure associated with the Proposed Project would therefore not result in a change in air traffic patterns, and would further not result in an associated safety risk.

Construction activities would result in a short-term increase in air traffic levels from the use of helicopters to install conductor, marker balls, and/or remove old infrastructure. SCE anticipates that a total of approximately 24 flight hours may be required over the entirety of the construction period (SCE, 2013). These flights would be conducted along portions of Proposed Project Segments 2 and 3, and would be coordinated with, and subject to, the regulations of the appropriate federal authorities, and thus would result in a less-than-significant impact to air traffic patterns. This minor increase in air traffic levels would not result in substantial safety risks because there is no evidence of existing air traffic congestion that would be exacerbated by the Proposed Project to a point where safety would be affected.

Project-related helicopter use would create a new air traffic pattern by adding flights to new destinations; however, there would be few trips total and they would not result in substantial safety risks to other pilots because the Proposed Project-related helicopter activities would occur in areas that are not commonly shared airspace. It also would not result in substantial safety risks to people on the ground. This impact would be less than significant.

Operation and Maintenance Impacts

During operations and maintenance, very infrequent helicopter overflights of the Proposed Project alignment may be conducted to inspect Proposed Project infrastructure; however, these flights would be coordinated with appropriate agencies and conducted in accordance with applicable regulations, and thus would result in a less-than-significant impact related to safety risks caused by increased air traffic levels.

Operation of the Proposed Project would also not change air traffic patterns or levels at public airports and helipad locations in the vicinity of the Proposed Project. Per FAA guidance, SCE would install marker balls on the highest conductor or by another means at the same height as the highest conductor, at intervals of approximately 200 feet or a fraction thereof (SCE, 2014). Marker balls provide a highly visible mechanical warning system for marking transmission lines

along a flight path during the day. As such, operation and maintenance of the Proposed Project would not obstruct flight paths or change air traffic patterns in a way that would result in safety risks. Impacts would be less than significant.

Mitigation: None required.

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d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact 5.17-4: Traffic safety hazards could increase for vehicles, bicyclists, and pedestrians on public roadways. *Less than significant* (Class III)

The Proposed Project would not change the configuration (alignment) of area roadways, and would not introduce types of vehicles that are not already traveling on area roads. However, heavy equipment operating adjacent to or within a road ROW could increase the risk of accidents, as construction-related trucks on local and state roadways would interact with other vehicles. Potential conflicts could also occur between construction traffic and alternative modes of transportation (e.g., bicyclists and buses). However, as described in Impact 5.17-1, the level of increased traffic generated by the Proposed Project, spread over the course of each work day, would not be substantial. Traffic from operation and maintenance would also not create a substantial increase in traffic, introduce incompatible uses to area roadways, or result in an increase in safety hazards for vehicles, bicyclists, and pedestrians on public roadways. Therefore, impacts pertaining to a substantial increase in hazards due to a design feature or incompatible use would be less than significant.

Mitigation: None required.

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e) Result in inadequate emergency access.

Impact 5.17-5: Construction activities could result in delays for emergency vehicles on roadways in the area. *Less than significant* (Class III)

All construction and maintenance activities at substations would be within the fencelines of the facilities. Associated activities and vehicles at the substations would not reduce the width of access roads or driveways, or block roads or driveways, and thus would not impair emergency access to substations.

Subtransmission-related construction activities in Project Segments 2 and 3 may require temporary closure of travel lanes on public roadways, private roads, and driveways, and would involve the movement of oversize vehicles that could affect emergency vehicle access to and through the Proposed Project construction areas. However, pursuant to APM TRA-1, SCE would

implement recommendations contained in the CJUTCM, including use of signage, flaggers, and coordination with relevant agencies and emergency responders. Vehicle movements along, and use of, access roads would be communicated to and coordinated with the appropriate agencies as necessary. Equipment placed on equipment pad/turnaround areas and drill pads would be situated or attended to facilitate adequate emergency vehicle access. Implementation of these measures would provide for efficient and safe transit of emergency vehicles through construction areas. SCE would also obtain the appropriate permits from the local jurisdictions, Union Pacific Railroad, and Caltrans, as applicable, for construction activities that would encroach upon any public ROW or easement. Therefore, the impact would be less than significant.

Mitigation: None required.

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f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Impact 5.17-6: Alternative modes of transportation (public transit, bicycle or pedestrian) could be adversely affected. ***Less than significant with mitigation*** **(Class II)**

The Proposed Project would not directly or indirectly eliminate alternative transportation corridors or facilities pertaining to bicycle lanes or public transit, nor would it include changes in policies or programs that support modes of alternative transportation. Proposed Project construction activities in any given location would occur over a short time period, and would largely be conducted in rural areas with no public transit service, or bicycle.

Construction activities conducted in populated areas with public transit service, rail service, or bicycle facilities include equipment installation at Moorpark Substation and Newbury Substation, stringing of conductor in the vicinity of the two substations and across local roadways, and installation of subtransmission structures and wire at Newbury Substation. Work in these areas would be conducted on SCE-owned property, within existing public utility easements, or in a public ROW. SCE would obtain encroachment permits or other required agreements from the local jurisdictions, Union Pacific Railroad, and Caltrans, as appropriate, for construction activities that would encroach upon any public ROW, public easement, or a private ROW, such as the railroad. In cases where construction work may require temporary closure of travel lanes or oversize vehicle trips that could disrupt public transit, rail service, bicycle, or pedestrian traffic, pursuant to APM TRA-1 SCE would implement recommendations contained in the CJUTCM, including the use of signage, flaggers, and coordination with relevant agencies. This would ensure the safety of pedestrians and bicyclists on roadways, and that any performance-related impact to these facilities would be less than significant.

However, as discussed in Section 5.16, *Recreation*, the Proposed Project could temporarily impede pedestrian access to trails within the Conejo Canyons Open Space area. Direct effects would include construction equipment blocking access to trails for activities including tower

removal, foundation and pole installation, and conductor stringing within the Proposed Project alignment. For example, the proposed construction laydown area located at poles 35 and 36, the stringing site near pole 40, and other construction activities in Segment 3 could impede access to the Western Plateau Trail and/or Peninsula Loop Trail. Mitigation Measures 5.1-2a and 5.1-2b (described in Section 5.1, *Aesthetics*), would reduce potentially significant impacts related to decreasing the performance or safety of pedestrian facilities.

Mitigation: Implement Mitigation Measures 5.1-2a and 5.1-52b.

Significance after mitigation: Less than significant.

5.17.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the construction, operation, and maintenance related impacts that would result under the Proposed Project, as discussed in Section 5.17.4, would not occur. There would be no increase in traffic volumes on roadways in the vicinity of the Proposed Project alignment under this alternative, nor would there be any change to the configuration and width of area roadways. Therefore there would be no effect on emergency access or alternative transportation corridors or facilities. No Project Alternative 1 would have no adverse effects on traffic and transportation conditions (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor. This Alternative would have similar impacts compared to the Proposed Project (though over a shorter period of time) because short-term increases in traffic on area roadways would be generated from construction activities over a period estimated to be about 5 months. There would be no traffic increases associated with long-term operation or maintenance under No Project Alternative 2.

As would be the case for the Proposed Project, pursuant to APM TRA-1, SCE would implement recommendations contained in the CJUTCM, including consulting and coordinating with local jurisdictions, to ensure the safe and efficient transit of vehicles, trains, bicyclists, and pedestrians through laydown and work areas. Therefore, construction-related traffic would not conflict with any traffic plans, ordinances, or policies that establish measures of effectiveness for the performance of the circulation system.

Construction activities would not result in a short-term increase in air traffic levels, as helicopters would not be used to remove infrastructure. If helicopters became necessary, SCE would coordinate with, and be subject to, the regulations of the appropriate federal authorities.

Associated increases in air traffic levels would not result in substantial safety risks because there is no evidence of existing air traffic congestion that would be exacerbated by this alternative to a point where safety would be affected.

This alternative would not change the configuration (alignment) of area roadways, and would not introduce types of vehicles that are not already traveling on area roads. Construction-related trucks on local and state roadways would interact with other vehicles and with alternative modes of transportation (e.g., bicyclists and buses); however, the level of increased traffic generated by this alternative, spread over the course of each work day, would be less than substantial.

The movement of oversize vehicles could affect emergency vehicle access to and through the construction areas. However, as would be the case for the Proposed Project, pursuant to APM TRA-1, SCE would implement recommendations contained in the CJUTCM, including use of signage, flaggers, and coordination with relevant agencies and emergency responders.

With implementation of Mitigation Measures 5.1-2a and 5.1-2b (see Section 5.1, *Aesthetics*, No Project Alternative 2 would not directly or indirectly eliminate alternative transportation corridors or facilities (e.g., bicycle lanes, bus routes/stops, pedestrian pathways, etc.), and would not include changes in policies or programs that support modes of alternative transportation.

For the above-described reasons, No Project Alternative 2 would result in less-than-significant traffic and transportation impacts regarding criteria a) through e) (Class III), and impacts under criterion f) would be less than significant with mitigation (Class II).

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5.18 Utilities and Service Systems

This section addresses the potential impacts on water, wastewater, solid waste disposal systems, and energy systems that could result from construction, operation, and maintenance of the Proposed Project and alternatives.

5.18.1 Setting

Water Services

The following three domestic water service providers, both public and private, service the Proposed Project area: Ventura County Waterworks District No. 1 (District No. 1), California American Water Company (CalAm), and Camrosa Water District.

District No. 1 provides potable water to the City of Moorpark and contiguous unincorporated areas to the north and west. District No. 1 sources of water include five groundwater wells and water provided from the State Water Project. District No. 1 serves approximately 37,580 customers through 10,540 service connections, and maintains 138 miles of water pipelines, 10 pumping stations, 20 pressure reducing stations, and 18 reservoirs. In 2012, District No. 1 supplied approximately 11,320 acre-feet (af) of water, 25 percent of it from local sources and 75 percent of it imported. Domestic, commercial, industrial, and fire protection customers consume approximately 77 percent of the total water supplied while the remaining 23 percent is consumed by agricultural customers (District No. 1, 2014).

The CalAm Ventura County service district provides water service to approximately one-half of the City of Thousand Oaks and portions of unincorporated Ventura County. In 2010, CalAm supplied 14,852 af of water to customers in the Ventura County service district (CalAm, 2011). All water provided to customers in the Ventura County service district is imported through the State Water Project and purchased from the Calleguas Municipal Water District. The Ventura County service district water distribution system includes 21 storage tanks, 18 boosters, and more than 269 miles of pipeline (CalAm, 2014).

The Camrosa Water District provides potable water to the cities of Camarillo and Thousand Oaks, and portions of unincorporated Ventura County. The 30-square mile district consists of 150 miles of buried pipeline, 10 reservoirs (total storage capacity of 14.3 million gallons or approximately 44 af), and five pumping stations. The Camrosa Water District serves approximately 7,990 residential, municipal, and industrial water connections and about 90 potable agricultural connections. In 2010, the Camrosa Water District supplied 15,025 af of water to their customers. Roughly 79 percent of that water was for residential, commercial, and industrial uses while the remaining amount served agricultural and other irrigation needs (Camrosa Water District, 2011).

Wastewater Services

District No. 1 also provides wastewater services, including collection and treatment of wastewater at the Moorpark Wastewater Treatment Plant (MWTP) located at 9550 Los Angeles Avenue in the City of Moorpark. The MWTP on average treats 2.21 million gallons a day (mgd) with a capacity to treat 5 mgd. The MWTP also has the capacity to treat wastewater to a tertiary standard, for distribution to uses for landscape and agricultural irrigation (District No. 1, 2011).

The City of Thousand Oaks Public Works Department, Wastewater Division, provides sanitation services to the city of Thousand Oaks and is responsible for the planning, administration, operation, and maintenance of the wastewater collection and interceptor systems, as well as operation of the Hill Canyon Wastewater Treatment Plant (HCTP). The HCTP treats incoming wastewater to tertiary standards. On average the 14-mgd capacity HCTP treats 10.5 mgd of wastewater generated from domestic, commercial, and industrial customers (City of Thousand Oaks, 2014a).

Solid Waste and Recycling Service

Solid waste from the Proposed Project, including excavated materials, would be delivered to one of the following waste facilities: Toland Road Landfill, Simi Valley Landfill and Recycling Center (SVLRC), Bradley East Processing/Transfer Station, or Antelope Valley Public Landfill. **Table 5.18-1**, *Solid Waste and Recycling Facilities That Serve the Proposed Project Area*, provides the permitted receiving capacity, remaining capacity, and the permitted capacity year for each of these solid waste and recycling facilities.

TABLE 5.18-1
SOLID WASTE AND RECYCLING FACILITIES THAT SERVE THE PROPOSED PROJECT AREA

Waste Facility	Operated or Managed By	Location	Permitted Receiving Capacity (tons of waste / day)	Remaining Capacity (cubic yards)	Year Permitted Capacity would be Reached
Toland Road Landfill	Ventura Regional Sanitation District	3500 North Toland Road, Santa Paula	1,500	21,983,000	2027
Simi Valley Landfill and Recycling Center	Waste Management of California, Inc.	2801 Madera Road, Simi Valley	9,250	119,600,000	2052
Bradley East Processing/ Transfer Station	Waste Management Recycling and Disposal Services of California	9227 Tujunga Avenue, Sun Valley	1,532	n/a	n/a
Antelope Public Valley Landfill	Antelope Valley Recycling and Disposal	1200 W. City Ranch Road, Palmdale	3,564	20,400,000	2042

NOTES: n/a = information not available.

SOURCES: CalRecycle, 2014a, b, c, d.

Electricity and Natural Gas

Southern California Edison (SCE) is the primary provider of electrical services and natural gas throughout Ventura County (Ventura County, various dates).

Regulatory Setting

Federal

No federal regulations pertaining to utilities and service systems apply to the Proposed Project or alternatives.

State

Assembly Bill 939

Assembly Bill (AB) 939, enacted in 1989 and known as the Integrated Waste Management Act, requires each city and/or county in California to prepare a Source Reduction and Recycling Element (SRRE) to demonstrate reduction in the amount of waste being disposed to landfills, with diversion goals of 50 percent by the year 2000. Senate Bill (SB) 2202 made a number of changes to the municipal solid waste diversion requirements under the Integrated Waste Management Act. These changes included revision of the statutory requirements to state that local governments shall divert 50 percent of all solid waste on and after January 1, 2000. Diversion includes waste prevention, reuse, and recycling. Other related bills have addressed particular aspects of diversion, requiring programs or methodologies to address such issues as bottle recycling, re-chargeable battery recycling, plastic bag disposal, and others.

Table 5.18-2, *Diversion Rates (As a Percent of the Total Waste Stream)*, provides the 2005 and 2006 diversion rates (the most recent available data) for the cities within the study area, as well as for the unincorporated areas of Ventura County (CalRecycle, 2014e).

TABLE 5.18-2
DIVERSION RATES
(as a percent of the total waste stream)

Jurisdiction	2005	2006
Moorpark	60	58
Thousand Oaks	56	56
Ventura County (Unincorporated)	48	52

SOURCE: CalRecycle, 2014e

More recent data is available as per capita disposal rates. The per capita disposal rate is a jurisdiction-specific index used as one of several factors in determining a jurisdiction's compliance with AB 939. The per capita disposal rate allows jurisdictions, as well as the California Department of Resources Recycling and Recovery (CalRecycle), to set their primary focus on successful

implementation of diversion programs (CalRecycle, 2014e). **Table 5.18-3** provides the 2012 per capita disposal rates in pounds per day for population and employment disposal.

TABLE 5.18-3
2012 JURISDICTIONAL PER CAPITA DISPOSAL RATES

Jurisdiction	Population Disposal (PPD)		Employment Disposal (PPD)	
	Target	Annual	Target	Annual
Moorpark	6.0	3.5	17.9	11.6
Thousand Oaks	7.5	4.5	14.8	9.1
Ventura County (Unincorporated	7.7	6.4	23.0	19.9

NOTES: PPD = pounds per day.

SOURCE: CalRecycle, 2014e

22 California Code of Regulations Division 4.5

Title 22 of the California Code of Regulations (CCR) discusses an array of requirements with respect to the disposal and recycling of hazardous and universal wastes. Specific standards and requirements are included for the identification, collection, transport, disposal, and recycling of hazardous wastes. Additional standards are included for the collection, transport, disposal and recycling of universal wastes, where universal wastes are defined as those wastes identified in Section 66273.9 of Title 22 of the CCR, including batteries, electronic devices, mercury containing equipment, lamps, cathode ray tubes, and aerosol cans. Requirements include recycling, recovery, returning spent items to the manufacturer, or disposal at an appropriately permitted facility. Division 4.5 of Title 22 also provides restrictions and standards relevant to waste destination facilities, and provides authorization requirements for various waste handlers. Title 22 includes California's Universal Waste Rule, as well as other additional waste handling and disposal requirements.

Local

Ventura County General Plan

California Public Utilities Commission (CPUC) General Order No. 131-D explains that local land use regulations would not apply to the Proposed Project or alternatives. However, for information purposes, the following goals and policies identified in the Ventura County General Plan (2007) would otherwise be relevant to the Proposed Project and alternatives:

> *Goal 4.1.1.1:* Plan for public facilities and services which will adequately serve the existing and future residents of the County.
>
> *Policy 4.4.2.6:* Applicants for discretionary development shall be encouraged to employ practices that reduce the quantities of wastes generated and shall be requested to engage in recycling activities to further reduce the volume of waste disposed of in landfills.

Goal 4.5.1: Promote the efficient distribution of public utility facilities and transmission lines to assure that public utilities are adequate to service existing and projected land uses, avoid hazards and are compatible with the natural and human resources.

Policy 4.5.2.1: New gas, electric, cable television and telephone utility transmission lines shall use or parallel existing utility ROWs where feasible and avoid scenic areas when not in conflict with the rules and regulations of the California Public Utilities Commission. When such areas cannot be avoided, transmission lines should be designed and located in a manner to minimize their visual impact.

Policy 4.5.2.2: All transmission lines should be located and constructed in a manner which minimizes disruption of natural vegetation and agricultural activities and avoids unnecessary grading of slopes when not in conflict with the rules and regulations of the California Public Utilities Commission.

Policy 4.5.2.3: Discretionary development shall be conditioned to place utility service lines underground wherever feasible.

Ventura County Construction and Demolition Debris Ordinance

Ventura County Ordinance 4421 establishes regulations for the recycling and diversion of construction and demolition (C&D) waste within Ventura County. This ordinance requires permit applicants working C&D projects within unincorporated areas of the county to practice waste prevention; reuse, recycle, or salvage; and, least preferred, landfilling solid wastes (VCPWA, 2014).

City of Moorpark General Plan

The Moorpark General Plan does not include goals, objectives, and/or policies related to utilities and service systems that would apply to the Proposed Project or alternatives (City of Moorpark, various dates).

City of Moorpark Construction and Demolition Debris Ordinance

Regulations for the recycling and diversion of C&D debris are provided in the City of Moorpark Ordinance Code 394. According to the ordinance, all demolition and city-sponsored projects, regardless of cost, and all new construction projects valued over $500,000, are required to recycle a minimum of 65 percent of all materials generated during a project (City of Moorpark, 2014).

City of Thousand Oaks General Plan

The Thousand Oaks General Plan does not include goals, objectives, or policies related to utilities and service systems that would apply to the Proposed Project or alternatives (City of Thousand Oaks, various dates).

City of Thousand Oaks Construction and Demolition Debris Ordinance

The City of Thousand Oaks C&D Recycling Ordinance No. 1544-NS, adopted in 2010, establishes regulation for the recycling and diversion of C&D debris within the City of Thousand Oaks. According to the ordinance, certain C&D projects must divert at least 60 percent of the project generated waste either through recycling or reuse. A project that exceeds one or more of

the following would be subject to the C&D Ordinance: 1) 1,000 square foot (sq. ft.) or more for residential addition or remodel; 2) 1,000 sq. ft. or more for new structures (residential & commercial); 3) 2,000 sq. ft. or more for commercial improvements; 4) demolition of any structure requiring a permit; 5) permitted grading work generating 5 tons or more of inert waste material; or 6) City sponsored projects generating 5 tons or more of waste debris (City of Thousand Oaks, 2014b).

5.18.2 Significance Criteria

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would result in significant utilities and service systems effects on the environment if it would:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

c) Require or result in the construction of new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects;

d) Not have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

f) Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs; or

g) Not comply with federal, state, and local statutes and regulations related to solid waste.

5.18.3 Applicant Proposed Measures

No applicant proposed measures have been identified by SCE to reduce Proposed Project impacts on utilities and service systems.

5.18.4 Impacts and Mitigation Measures

Approach to Analysis

This section presents an analysis of the potential impacts to utilities and service systems that would be associated with the construction, operation, and maintenance of the Proposed Project.

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. (No Impact)

The Proposed Project would not exceed any wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board (RWQCB). During construction, portable toilets would be provided for crews. Construction activities would be temporary, lasting approximately 10 months, and peak construction would employ a maximum of 217 workers per day. Wastewater generated during construction would be limited and handled by a licensed provider in accordance with all applicable requirements.

Proposed Project operation and maintenance would include personnel visits for routine and emergency inspections and to repair or maintain the infrastructure at Moorpark and Newbury substations, and along the subtransmission alignment. The frequency of inspection and maintenance activities would depend upon weather effects and any unique problems that may arise due to such variables as substantial storm damage or vandalism. The operational activities along the Proposed Project alignment and Moorpark and Newbury substations would be similar in scope to the existing operational activities taking place at these locations for other infrastructure, and the volume of wastewater discharged from proposed operational activities would not increase relative to current discharge volumes. The limited amount of wastewater generated during Proposed Project construction would not exceed treatment requirements; therefore, no impact would occur (No Impact). See also discussion e), below.

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b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (No Impact)

The Proposed Project would not require or result in the construction of new water treatment facilities or the expansion of existing water treatment facilities. No such facilities would be developed as part of the Proposed Project and no construction-, operation-, or maintenance-related activity is expected to displace or destroy existing water wells, pipelines, or other facilities that provide water or wastewater services in the Proposed Project area.

The Proposed Project would require water use during construction, primarily as a dust control measure. Water would also be used during brushing, mowing, and road and work area rehabilitation at the approaches to work areas for installation of tubular steel poles (TSPs) and lightweight steel (LWS) poles, removal of lattice steel towers (LSTs) and wood poles, and at areas for stringing conductor and helicopter landing zones (other than Moorpark Substation). These activities would require approximately 37 acre-feet of water altogether, most likely brought to the site by water trucks. However, this water use would be temporary in nature and would not generate wastewater that would require treatment or disposal, because it would mostly be ground-applied during dry weather and would be absorbed into the ground or would evaporate, creating no runoff. As described in discussion a), wastewater generated during construction would be limited and handled by a licensed provider with available capacity for the Proposed Project's wastewater needs.

Operation and maintenance of the Proposed Project would require the use of water for washing of the insulators to prevent the buildup of contaminants such as dust, salts, droppings, and condensation. During operation and maintenance, water would be available via existing connections from local municipalities. Operational water use would generally be similar to that currently generated by operation of the existing subtransmission system. Use of this water would not require the construction of a permanent water treatment facility, nor would it result in the need for expanded treatment facilities off-site. Therefore, no impact would occur (No Impact). See also discussion d) and e), below.

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c) Require or result in the construction of new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects. (No Impact)

No stormwater drainage facilities are proposed to be constructed as part of the Proposed Project. Construction, operation, and maintenance of the Proposed Project would result in very little change to the existing drainage pattern of the area, as the Proposed Project would result in the installation of 22 TSPs, foundations for 14 TSPs, two LWS poles, and would result in the removal of 14 LSTs and 6 wood poles within the existing SCE rights-of-way (ROWs). The TSPs would be installed on a concrete base foundation 6 to 8 feet in diameter and the LWS poles would be installed on a 2- to 3-foot concrete base foundation. For the LSTs and wood poles that would be removed and not replaced in the same location, holes would be filled and compacted, and the area would be smoothed to match surrounding grade. Restoration would include grading to original contours and reseeding where appropriate. Pole installation sites, work areas, pull and tension sites, staging areas, and access roads required for the Proposed Project would not result in a net increase in impervious surfaces, as no surfaces associated with the Proposed Project would be paved.

The Proposed Project would also involve modifications at the Moorpark Substation that would consist of installing new cable and conduit. None of these modifications would substantially increase runoff.

Since the Proposed Project would not substantially increase the amount of impervious surfaces, it would not create a significant amount of additional runoff water. Therefore, the Proposed Project would not require or result in the construction of a new or expanded storm drainage facility, and no impact would occur (No Impact).

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d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.

Impact 5.18-1: Construction, operation, and maintenance would require the use of municipal water supplies. *Less than significant* (Class III)

The primary use of water during construction of the Proposed Project would be for dust suppression on access roads and active work sites. SCE estimates that approximately 37 af of water would be required altogether during the 10-month construction period, most likely trucked in from off-site. The working crew would bring in drinking water from off-site. Water used during the construction period would be available from existing municipal water sources identified in Section 5.18.1, *Settings,* and would not require local water providers to obtain additional water entitlements.

Operation and maintenance of the Proposed Project would require the use of water for washing of the insulators to prevent the buildup of contaminants such as dust, salts, droppings, and condensation, and reduce the possibility of electrical arcing that would result in circuit outages and potential fire. The frequency of insulator washing would be based on local conditions and build-up of contaminants. Operational water would likely be supplied from existing on-site connections. The volume of water necessary for these operations would slightly increase the volumes associated with current operations in SCE's ROW. These volumes of water would be small, and sufficient water supplies are available to serve the Proposed Project. Construction, operation, and maintenance of the Proposed Project would therefore not require new or expanded water supply resources or entitlements. Impacts to municipal water supplies would be less than significant.

Mitigation: None required.

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e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (No Impact)

As described under criterion d), the primary use of water during construction of the Proposed Project would be associated with dust suppression. Water disposal would not be required because the water used during dust suppression activities would be minimal and would evaporate or be absorbed into the ground. In addition, construction crews would use portable sanitation facilities (portable toilets), generating relatively small volumes of wastewater for a limited time during the construction phase. Sanitation waste would be disposed of according to sanitation waste management practices. No other sources of wastewater are anticipated during the Proposed Project construction activities.

Operation of the Proposed Project would generate volumes of wastewater that would not increase relative to current discharge volumes. The construction and operation water usage of the Proposed Project would not affect the ability of wastewater treatment facilities to fulfill existing commitments; therefore, no impact would occur (No Impact).

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f) Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs.

Impact 5.18-2: Construction would require the disposal of solid wastes. *Less than significant* (Class III)

Operation and maintenance of the Proposed Project would not generate solid waste and would therefore not affect existing landfill capacities (No Impact).

Construction of the Proposed Project would generate various waste materials, including wood, metal, soil, vegetation, and miscellaneous construction materials. This impact would be of short duration, lasting approximately 16 months (i.e., 10 months of construction and approximately 6 months of additional site clean-up.) As described in Chapter 3, *Project Description*, the Proposed Project would require the removal and disposal of 14 existing LSTs, six wood poles, and associated hardware. Solid waste from the Proposed Project would be separated by construction crews at the Proposed Project site into salvageable, recyclable, and non-reusable items. Items that could be recycled and salvaged (including conductor wire, steel from towers, and hardware) would be transported to staging areas. The existing wood poles removed for the Proposed Project would be returned to the staging yard, and either reused by SCE, returned to the manufacturer, disposed of in a Class I hazardous waste landfill, or disposed of in the lined portion of a municipal landfill which the RWQCB has approved for the disposal of treated wood waste. Other miscellaneous non-hazardous construction materials that cannot be reused or recycled would be disposed of at Toland Road Landfill, SVLRC, Bradley East Processing/Transfer Station, or Antelope Valley Public Landfill. Any hazardous materials would be recycled, treated, and/or disposed of in accordance with federal, state, and local laws. Impacts related to the removal and disposal of treated wood and construction materials would be less than significant (see Section 5.9, *Hazards and Hazardous Materials*, for additional information).

Soil and vegetative material excavated for the Proposed Project would either be used as fill, backfill, made available for use by the landowner, reused, or disposed of off-site in accordance with applicable requirements. Soils and vegetative matter unsuitable for backfill use would be disposed of at appropriate disposal sites.

As discussed in Table 5.18-1, *Solid Waste and Recycling Facilities That Serve the Proposed Project Area*, each of the possible disposal facilities that could be used by the Proposed Project has a remaining permitted capacity that far exceeds the amount of waste the Proposed Project would produce. Furthermore, each of the landfills listed in Table 5.18-1 has a permitted capacity to operate during and well past the construction period. Because the majority of waste resulting from the removal of LTSs would be included under the Ventura County and/or cities of Moorpark or Thousand Oaks C&D Debris Ordinances, and would be salvageable, and because the local landfills have sufficient capacity to accept the remainder of SCE's construction waste, this would be a less-than-significant impact.

Mitigation: None required.

g) Comply with federal, state, and local statutes and regulations related to solid waste. (No Impact)

As discussed above, the Proposed Project would generate waste during construction and no waste during operation and maintenance. Construction waste would include disposal of a limited amount of materials that would not be recycled or reused, that would be disposed at Toland Road Landfill, SVLRC, Bradley East Processing/Transfer Station, or Antelope Valley Public Landfill. As discussed above, each of these landfills has sufficient capacity to accept anticipated Proposed Project waste.

Ventura County has an adopted the Countywide SRRE that establishes goals and methodologies for compliance with the California AB 939, which establishes 50 percent diversion of solid waste from landfills. As stated earlier, unincorporated Ventura County's diversion rate in 2005 was 48 percent and in 2006 was 52 percent; therefore, the County met the requirement of AB 939 in 2006 but not in 2005. The cities of Moorpark and Thousand Oaks met the requirement of AB 939 in 2005 and 2006. In 2013, neither unincorporated Ventura County nor the cities of Moorpark or Thousand Oaks met their population or employment disposal rates (CalRecycle, 2014e).

Nevertheless, as stated in Section 5.18.1, *Regulatory Setting*, Ventura County has a C&D ordinance that establishes diversion requirements for construction and demolition occurring within unincorporated areas. SCE would reduce construction material and treated wood pole waste through the processes described above in Impact 5.18-2 consistent with Ventura County recycling and reduction policies. Thus, the Proposed Project would not result in impacts related to conflict with statutes or regulations related to solid waste and recycling (No Impact).

5.18.5 Alternatives

No Project Alternative 1

Under No Project Alternative 1, the Proposed Project would not be implemented and no impacts to utilities or service systems would occur. None of the Proposed Project objectives would be met and future demand in the electric needs area (ENA) would not be adequately met. SCE forecast indicates a projected voltage drop that would exceed the acceptable 5 percent limit on the 66 kV bus at Newbury Substation under abnormal system conditions and a projected overload on the Moorpark-Newbury tap of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line under a normal system configuration. While these conditions would jeopardize SCE's ability to provide safe and reliable electric service to customers within the ENA, they would not result in physical impacts to utilities and service systems (No Impact).

No Project Alternative 2

Under No Project Alternative 2, the Proposed Project would not be constructed and the infrastructure already constructed for the Moorpark-Newbury 66 kV Subtransmission line would be removed, with the exception of the previously installed LWS poles and energized conductor.

No Project Alternative 2 would require the removal of 22 TSPs, 30 TSP foundations, slurry from three foundation holes, and possibly infrastructure previously installed at Moorpark and Newbury substations. Compared to the Proposed Project, this alternative would generate proportionately more waste from removal activities. However, no part of this alternative would generate solid waste in amounts exceeding the capacity of local facilities serving the area. Impacts due to demands on water and solid waste disposal needs would be less than significant and no mitigation measures would be required. Like the Proposed Project, this alternative would not require construction or expansion of stormwater drainage facilities or wastewater treatment facilities. Additionally, No Project Alternative 2 would not exceed treatment requirements or conflict with statutes or regulations related to solid waste and recycling. Therefore, this alternative would result in no impact to utility services regarding criteria a), b), c), e), and g) (No Impact), and less-than-significant impacts regarding criteria d) and f) (Class III).

Under No Project Alternative 2, none of the Proposed Project objectives would be met and future demand in the electric needs area (ENA) would not be adequately met. SCE forecast indicates a projected voltage drop that would exceed the acceptable 5 percent limit on the 66 kV bus at Newbury Substation under abnormal system conditions and a projected overload on the Moorpark-Newbury tap of the Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line under a normal system configuration. While these conditions would jeopardize SCE's ability to provide safe and reliable electric service to customers within the ENA, they would not result in physical impacts to utilities and service systems.

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CHAPTER 6
Comparison of Alternatives

This section summarizes and compares the environmental advantages and disadvantages of the Proposed Project and alternatives evaluated in this Environmental Impact Report (EIR). This comparison is based on the assessment of environmental impacts of the Proposed Project and each alternative, as identified in Sections 5.1 through 5.18. Chapter 3, *Project Description*, describes the Proposed Project. Chapter 4, *Project Alternatives*, introduces and describes the alternatives considered in this EIR as well as the alternatives that were screened from full analysis.

Section 6.1 describes the methodology used for comparing alternatives. Section 6.2 summarizes the environmental impacts of the Proposed Project and the alternatives. Section 6.3 defines the Environmentally Superior Alternative, based on comparison of each alternative with the Proposed Project.

6.1 Comparison Methodology

The California Environmental Quality Act (CEQA) does not provide specific direction regarding the methodology of alternatives comparison. Each project must be evaluated for the issues and impacts that are most important; this varies depending on the project type and the environmental setting. Issue areas that are generally given more weight in comparing alternatives are those where significant impacts would occur or where there would be long-term impacts (e.g., visual impacts and permanent loss of habitat or land use conflicts). Impacts that are easily mitigable to less-than-significant levels are generally considered to be less important.

This comparison is designed to satisfy the requirements of CEQA Guidelines Section 15126.6(d), Evaluation of Alternatives, which states that:

> *"The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the proposed project as proposed."*

If the Environmentally Superior Alternative is the No Project Alternative, CEQA requires identification of an Environmentally Superior Alternative among the other alternatives (CEQA Guidelines §15126.6[e][2]).

The following methodology was used to compare alternatives in this EIR:

Step 1: **Identification of Alternatives.** As described in Chapter 4, *Project Alternatives*, an alternatives screening process was used to identify six alternatives to the Proposed Project. That screening process identified no alternatives for detailed EIR analysis that would avoid or substantially lessen any of the significant effects of the Proposed Project, while obtaining the basic CEQA objectives for the Proposed Project, and being feasible. Two "no project" alternatives were identified for detailed EIR analysis.

Step 2: **Determination of Environmental Impacts.** The environmental impacts of the Proposed Project and the two no project alternatives were identified in Sections 5.1 through 5.18.

Step 3: **Comparison of Proposed Project with Alternatives.** The environmental impacts of the Proposed Project were compared to the environmental impacts of each of the no project alternatives to determine the Environmentally Superior Alternative.

6.2 Evaluation of Project Alternatives

Two no project alternatives were identified for evaluation in this EIR. This section compares the potential environmental impacts for the Proposed Project with the environmental impacts of the two no project alternatives. A detailed analysis of environmental impacts and mitigation for the no project alternatives is provided in Sections 5.1 through 5.18.

There would be significant and unavoidable (Class I) impacts pertaining to air quality and noise under the Proposed Project and No Project Alternative 2 (**Table 6-1**). A significant and unavoidable impact on air quality is identified for construction activities that would generate ozone precursor emissions (i.e., nitrogen oxides [NO_x]) that could contribute substantially to a violation of ozone air quality standards; this impact is also cumulatively considerable. Significant and unavoidable noise-related impacts are also identified for the Proposed Project for construction activities that would generate noise levels in unincorporated Ventura County that would exceed Ventura County construction noise threshold criteria during the day or at night, and for potential nighttime construction activities in the cities of Moorpark and/or Thousand Oaks. Significant and unavoidable noise-related impacts are also identified for No Action Alternative 2 for construction activities that would generate noise levels in unincorporated Ventura County that would exceed Ventura County construction noise threshold criteria.

In addition to the significant and unavoidable impacts described above, there are several differentiating impacts that with mitigation would be less than significant. **Table 6-2** provides a comparison of potential impacts by alternative for each resource category.

TABLE 6-1
SUMMARY OF SIGNIFICANT AND UNAVOIDABLE (CLASS I) ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

Proposed Project/ Alternative	Significant (Class I) Impacts
Proposed Project	Construction-related daily exhaust emissions of NO_x (maximum of approximately 346 pounds per day) would exceed the applicable significance threshold, resulting in emissions that could contribute to a violation of ozone air quality standards, which would be individually significant as well as cumulatively considerable.
	Daytime construction activities associated with at least one conductor stringing site and one helicopter landing zone would exceed the Ventura County construction noise threshold criteria, and nearly all nighttime construction activities within 1,000 feet of Ventura County sensitive receptors would exceed the Ventura County construction noise threshold criteria. Potential nighttime construction-related activities would generate noise levels that would substantially increase ambient noise levels in the cities of Moorpark and Thousand Oaks.
No Project Alternative 2	Construction-related daily exhaust emissions of NO_x (maximum of approximately 216 pounds per day) would exceed the applicable significance threshold, resulting in emissions that could contribute to a violation of ozone air quality standards, which would be individually significant as well as cumulatively considerable.
	Construction activities associated with Tubular Steel Poles (TSPs) and foundation removal would likely exceed the Ventura County construction noise threshold criteria. In the unlikely event that nighttime construction was required, construction-related nighttime noise levels would substantially increase ambient noise levels in the cities of Moorpark and Thousand Oaks.

6.3 Environmentally Superior Alternative

As discussed in the previous section, the Proposed Project and No Project Alternative 2 would have significant and unavoidable impacts pertaining to air quality and noise. The extent of the unavoidable impacts on air quality resources and noise varies slightly between the Proposed Project and No Project Alternative 2, with slightly greater impacts under the Proposed Project for both air quality and noise. Impacts to air quality and noise could not be mitigated to less-than-significant levels for either the Proposed Project or No Project Alternative 2.

Resource categories where environmental impacts would either be materially lessened or increased by implementing an alternative to the Proposed Project are discussed below.

- **Air Quality** – Impacts would be significant and unavoidable for the Proposed Project and No Project Alternative 2. Compared to the Proposed Project, No Project Alternative 2 would result in lower peak daily emissions, with the Proposed Project generating a maximum of approximately 346 pounds of NO_x on the peak day of construction and No Project Alternative 2 generating a maximum of approximately 216 pounds of NO_x on the peak day of construction. No Project Alternative 1 would result in no NO_x emissions and no impact to air quality.

- **Noise** – Impacts would be significant and unavoidable for the Proposed Project and No Project Alternative 2. Under the Proposed Project, conductor installation activities at the stringing site north-northeast of the intersection of Hitch Boulevard and Ventavo Road, and helicopter landings and takeoffs at the helicopter landing zone near the end of Proposed Project Segment 2 would result in noise levels that would exceed the county's construction

TABLE 6-2
PROPOSED PROJECT VS. ALTERNATIVES
SUMMARY OF ENVIRONMENTAL IMPACT CONCLUSIONS

Resource Area	Proposed Project	No Project Alternative 1	No Project Alternative 2
Aesthetics	Impacts determined to be Class II and Class III. **Most Impact**	There would be no impact.	Impacts would be less than the Proposed Project for construction, and beneficial for operations. **Least Impact**
Agriculture and Forestry Resources	Impacts determined to be Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be less than the Proposed Project.
Air Quality	Impacts determined to be Class I, Class II, and Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Biological Resources	Impacts determined to be Class II and Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Cultural Resources	Impacts determined to be Class II and Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Energy Conservation	Energy consumption impacts determined to be Class III; impacts to energy supplies/capacity/resources would be Class IV. **Most Impact** related to energy consumption. **Least Impact** related to energy supplies/capacity/resources.	Impacts would be less than the Proposed Project related to energy consumption, and greater than the Proposed Project related to energy supplies/capacity/resources. **Least Impact** related to energy consumption.	Impacts would similar to but slightly less than the Proposed Project related to energy consumption and greater than the Proposed Project related to energy supplies/capacity/resources.
Geology and Soils	Impacts determined to be Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Greenhouse Gas Emissions	Impacts determined to be Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Hazards and Hazardous Materials	Impacts determined to be Class II and III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Hydrology and Water Quality	Impacts determined to be Class II. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to, but slightly less than Proposed Project.

TABLE 6-2 (Continued)
PROPOSED PROJECT VS. ALTERNATIVES
SUMMARY OF ENVIRONMENTAL IMPACT CONCLUSIONS

Resource Area	Proposed Project	No Project Alternative 1	No Project Alternative 2
Land Use and Planning	There would be no impact. **No Preference**	There would be no impact. **No Preference**	There would be no impact. **No Preference**
Mineral Resources	There would be no impact. **No Preference**	There would be no impact. **No Preference**	There would be no impact. **No Preference**
Noise	Impacts determined to be Class I and III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar but slightly less than the Proposed Project.
Population and Housing	Impacts determined to be Class III. **No preference**	There would be no impact. **Least Impact**	Impacts would be similar to the Proposed Project. **No preference**
Public Services	There would be no impact. **No Preference**	There would be no impact. **No Preference**	There would be no impact. **No Preference**
Recreation	Impacts determined to be Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Transportation and Traffic	Impacts determined to be Class II and Class III. **Most Impact**	There would be no impact. **Least Impact**	Impacts would be similar to but slightly less than Proposed Project.
Utilities and Service Systems	Impacts determined to be Class III. **No Preference**	There would be no impact. **Least Impact**	Impacts would be similar to the Proposed Project. **No Preference**

noise threshold criteria. In addition, in the event that Proposed Project construction activities occur at night ambient noise levels at nearby sensitive receptors would substantially increase in the cities of Moorpark and Thousand Oaks. No Project Alternative 2 would result in an exceedance of Ventura County noise thresholds at a TSP removal location near a residence off Buggy Lane in unincorporated Ventura County. Although it is unlikely that No Project Alternative 2 would require nighttime construction, if it did, it would substantially increase ambient noise levels in the cities of Moorpark and Thousand Oaks. No Project Alternative 1 would result in no noise generation, and no impact from noise.

No Project Alternative 1 would not result in any significant and unavoidable impacts, and would therefore be the Environmentally Superior Alternative. The Proposed Project would not be built and would therefore have no environmental impacts related to construction, operation, and maintenance. However, from an operational perspective, none of the Proposed Project objectives would be achieved and demand for electricity in the Electrical Needs Area (ENA) would not be adequately met. The ENA would potentially experience a shortage of electricity and the electrical system could become vulnerable to upset until a new project could be designed, permitted, and constructed to provide additional transmission capacity and reliability to the area. The improved system reliability and operating flexibility associated with the Proposed Project would not occur. Therefore, without upgrades to the existing system, as new facilities are added, the system would experience system-wide power flow and reliability problems due to overloading of the existing system, such as curtailed generation, thermal overload, and blackouts.

No Project Alternative 2 would also not achieve any of the Proposed Project objectives, and similar to No Project Alternative 1, could result in the ENA experiencing a shortage of electricity, the effects of which would include the electrical system becoming vulnerable to upset until a new project could be designed, permitted, and constructed to provide additional subtransmission capacity and reliability to the area. No Project Alternative 2 would result in beneficial impacts to aesthetics after the completion of construction, as it would remove industrial infrastructure from the viewshed. However, like the Proposed Project, it would result in significant and unavoidable impacts pertaining to air quality and noise, and greater impacts (Class II and Class III) than No Project Alternative 1 for the following resource areas: agriculture and forestry resources, biological resources, cultural resources, energy conservation, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, population and housing, recreation, traffic and transportation, and utilities and service systems. For these reasons, No Project Alternative 2 is not the Environmentally Superior Alternative.

CEQA Guidelines 15126(e)(2) requires that if the Environmentally Superior Alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. As discussed in Chapter 4, *Project Alternatives,* the EIR team looked for alignment and/or system alternatives to the Proposed Project that could feasibly accomplish most of the basic objectives of the Proposed Project and could avoid or substantially lessen one or more of the significant effects (CEQA Guidelines §15126.6(c)), but did not identify any alternatives that met these criteria. Therefore, the Proposed Project would be the Environmentally Superior Alternative, as there are no suitable alternatives that are not "no project" alternatives.

CHAPTER 7
Cumulative Effects

As defined in California Environmental Quality Act (CEQA) Guidelines Section 15355, the term "cumulative impacts" refers to two or more individual effects, which, when considered together, are considerable or that compound or increase other environmental impacts. "The cumulative impact from several projects is 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); see also, CEQA Guidelines Section 15130(a)(1).

Section 7.1, *Projects Considered in the Cumulative Analysis,* in this chapter identifies past, present, and reasonably foreseeable future projects that have been considered as part of the cumulative scenario. Section 7.2, *Cumulative Effects Analysis,* analyzes whether the Proposed Project's incremental effects, combined with the effects of other projects, would cause a significant cumulative impact. The Proposed Project's incremental contribution to any significant cumulative impact also is evaluated in Section 7.2 to determine whether it is cumulatively considerable. An incremental project-specific impact would be cumulatively considerable if it is "significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (CEQA Guidelines §15065(a)(3)).

7.1 Projects Considered in the Cumulative Analysis

Consistent with the CEQA requirements (§15355), a cumulative scenario has been developed to identify projects that could potentially contribute to cumulative impacts for the Proposed Project. The projects that comprise the cumulative scenario do not include existing projects that have been completed and are in operation, as those are included as part of the environmental setting for individual resource areas and are analyzed with respect to each resource area in Chapter 5. In addition, as described in Chapter 2, *Background,* past construction activities that have been completed for the project are not included in this cumulative scenario and are considered to be part of the baseline for the Proposed Project. The cumulative scenario is comprised of projects that are within the vicinity of the Proposed Project and alternatives, and include:

- Projects that are currently under construction;
- Approved projects that have not yet been constructed;
- Projects requiring an agency approval for an application that has been received at the time the Notice of Preparation was released;

- Projects that have been budgeted, planned, or included as a later phase of a previously approved project; and
- Probable future projects that are determined to be reasonably foreseeable for other reasons.

Ventura County, the cities of Moorpark and Thousand Oaks, the California Department of Transportation (Caltrans), Southern California Edison (SCE), and California Public Utility Commission (CPUC) websites were visited for information on projects within their respective jurisdictions. The projects considered to be part of the cumulative scenario are presented in **Table 7-1,** *Cumulative Scenario – Approved and Pending Projects***,** which also describes the approximate geographic location of each project (see **Figure 7-1**, *Cumulative Projects)*. The projects in the cumulative scenario include a range of project types from single-family housing developments and planning projects to road improvements, and one industrial project.

7.2 Cumulative Effects Analysis

7.2.1 Aesthetics

The geographic scope of the cumulative impacts to visual quality is the viewsheds that could be affected by the Proposed Project from public roadways, trails, open space, and residential areas. Viewsheds that include the Proposed Project area range from enclosed to extensive, given the variety of the landscapes the Proposed Project would traverse, including undeveloped rolling hills, cultivated farmlands, industrial areas, business centers, and suburban to rural residential development in eastern Ventura County.

As discussed above, Mitigation Measures 5.1-2a, 5.1-2b, and 5.1-6 would ensure that the Proposed Project would not result in significant individual effects on visual resources. The past, present, and reasonably foreseeable future projects described in this chapter includes numerous major development projects in Ventura County and the cities of Moorpark and Thousand Oaks that could alter the visual character of areas within the Proposed Project vicinity, such as project 1 (construction of a 76,000 square-foot medical office building) and project 9 (construction of a motion picture studio complex on 37 acres). Many of these projects would have the potential to create new visual impacts within the same viewsheds that could be affected by the Proposed Project from public roadways, trails, open space, and residential areas. However, the projects would generally be located in urbanized, developed areas (i.e. city limits) and would therefore not be likely to affect the area's visual character. Additionally, future development within the Proposed Project vicinity is guided by the applicable city and county General Plans, and associated planning and environmental documents. Furthermore, new development would be subject to the applicable city and county design review process.

The Proposed Project would add new or upgraded electrical infrastructure to the overall visual setting of the Proposed Project area. The Proposed Project would contribute to cumulative adverse influences where aboveground facilities or evidence of underground facilities (e.g., cleared ROWs) occupy the same field of view as other built facilities or impacted landscapes that are currently in the viewsheds of sensitive viewers in the Proposed Project area. Existing utility

TABLE 7-1
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Map ID	Project Name or Applicant	Address / Location	Jurisdiction	Details	Status / Timeline	Approximately Distance from Proposed Project
1	Grand Moorpark	635 Los Angeles Avenue/State Route 118	City of Moorpark	Construction of a 76,000 square-foot medical office building	Approved, not yet under construction	0.8 mile east of Moorpark Substation
2	City Hall/Civic Center Complex	83 High Street	City of Moorpark	Construction of a new 32,000 square-foot city hall building	Site planning and CEQA review underway	1 mile northeast of Moorpark Substation
3	Los Angeles Avenue widening at Shasta Avenue	Los Angeles Avenue/ State Route 118 between Maureen Lane and Leta Yancy Road	City of Moorpark	Widening the south side of Los Angeles Avenue to provide three lanes of traffic in each direction with a center turn lane; project improvements will include curb, gutter, and sidewalk	Construction is anticipated to occur in 2015	0.5 mile east of Moorpark Substation
4	Los Angeles Avenue widening: Spring Street to Moorpark Avenue	Los Angeles Avenue/ State Route 118 between Spring Road and Moorpark Avenue	City of Moorpark	Widen the highway to six lanes of traffic; project improvements will also include curbs, gutters and sidewalks the full length of the project	The environmental document has been approved by Caltrans and the Federal Highway Administration, and accepted by the City Council; right of way acquisition efforts have commenced with construction anticipated in the 2014/2015 fiscal year	1 mile east of Moorpark Substation
5	Pacific Communities	South of Los Angeles Avenue/State Route 118 and east of Maureen Lane	City of Moorpark	157 single family residences, 300 attached condos on 37.09 acres	Entitlement application in process	0.5 mile southeast of Moorpark Substation
6	Hitch Ranch Partners	North of Union Pacific Railroad tracks and west of terminus of Casey Road	City of Moorpark	755 single and multi-family residences on 281 acres	Environmental Impact Report (EIR) and Hitch Ranch Specific Plan in process	0.5 mile northeast of Moorpark Substation
7	Essex Moorpark, L.P	South of Casey Road and west of Walnut Canyon Road	City of Moorpark	200 apartment residences on 11 acres	In process	0.8 mile east of Moorpark Substation
8	A-B Properties	North of Union Pacific Railroad tracks, west of Gabbert Road	City of Moorpark	17 lots on 36 acres	Grading underway; no building plans filed	Immediately north of subtransmission line north of State Route 118; less than 0.25 mile from Moorpark Substation
9	Triliad Development	Los Angeles Avenue/ State Route 118 west of Moorpark Substation	City of Moorpark	Motion picture studio complex on 37 acres	Approved, not yet under construction	Adjacent (west) to Moorpark substation
10	Underground District No.2: Los Angeles Avenue transmission lines	Along Los Angeles Avenue/State Route 118 between Shasta Avenue and Millard Street	City of Moorpark	Establishment and implementation of an underground utility district to underground the high voltage transmission lines and remove all poles and overhead wires	Fiscal Year 2015/2016	0.7 mile east of Moorpark Substation

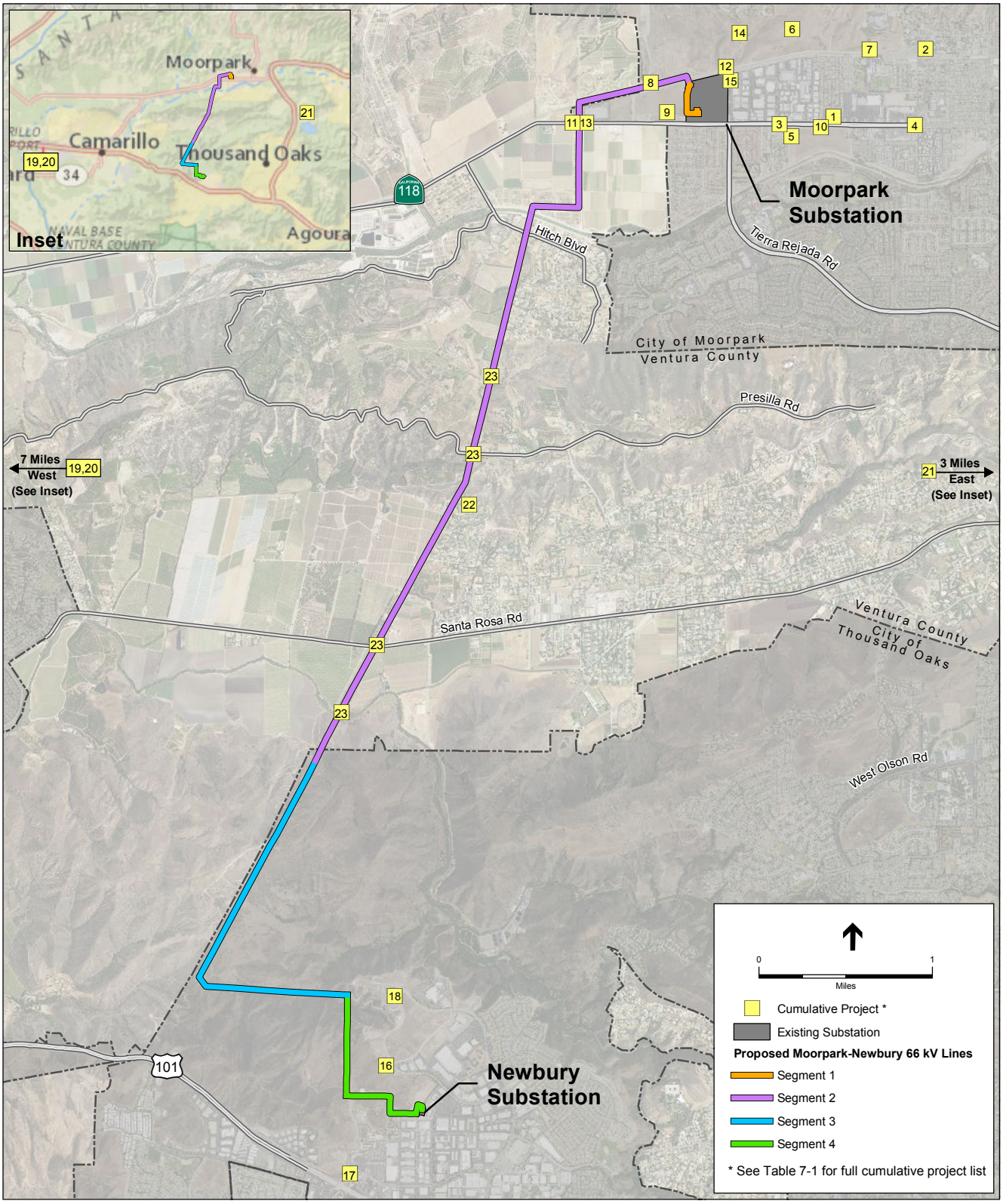
TABLE 7-1 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Map ID	Project Name or Applicant	Address / Location	Jurisdiction	Details	Status / Timeline	Approximately Distance from Proposed Project
11	North Hills Parkway	West of Buttercreek Road (north of Los Angeles Avenue) to northeast of Spring Road	City of Moorpark	The construction of a new east-west arterial street north of Casey Road; the westerly end of the street is proposed to connect to Los Angeles Avenue, via a future railroad undercrossing, at a point west of Butter Creek Road	Completed Fiscal Year 2013/2014	Would traverse a portion of Segment 2
12	Gabbert Road rail crossing improvements; AB Properties	Gabbert Road at the Union Pacific Railroad Crossing	City of Moorpark	Street widening and related improvements	To be determined	Within 0.1 mile of Moorpark Substation
13	Los Angeles Avenue widening west of Tierra Rejada Road	West of Tierra Rejada Road to west of Butter Creek Road	City of Moorpark	The construction of street widening on Los Angeles Avenue west of Tierra Rejada Road, as a function of the development of property in this area	To be determined	Would cross a portion of Segment 2
14	Casey Road westerly extension	Gabbert Road	City of Moorpark	The Circulation Element of the Moorpark General Plan calls for the westerly extension of Casey Road to connect to Gabbert Road; this future project is to be constructed by developers	To be determined	Within 0.5 mile northeast of Moorpark Substation
15	Asphalt overlays on Poindexter Avenue and Gabbert Road	Poindexter Avenue (N. Commerce Avenue to Gabbert Road); and Gabbert Road (Poindexter Avenue to a point approximately 200-ft south of Poindexter Avenue)	City of Moorpark	Pavement rehabilitation	Fiscal Year 2013/2014	Within 0.25 mile northeast of Moorpark Substation
16	Amendment to the General Plan Land Use Element and amendment to the Rancho Conejo Specific Plan	West side of Conejo Center Drive at Conejo Spectrum Street	City of Thousand Oaks	Amend the General Plan Land Use Element and the Rancho Conejo Specific Plan for a 7.94-acre area currently designated as *Institutional* to *Employment Park*; uses allowed in this designation include certain types of manufacturing, laboratories, contractor storage yards, equipment rental yards and wholesale business	Negative Declaration issued October 2013	Immediately east of Segment 4 (subtransmission line) and less than 0.5 mile northwest of Newbury Substation
17	Seventh Day Adventists Church - 1993-829 Special Use Permit	Academy Drive and Wendy Drive	City of Thousand Oaks	Construction of a K-12 school and church	Institutional approved by CPUC	Less than 0.5 mile southwest of Newbury Substation

TABLE 7-1 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Map ID	Project Name or Applicant	Address / Location	Jurisdiction	Details	Status / Timeline	Approximately Distance from Proposed Project
18	2010-70041 Special Use Permit/2010-70043 Specific Plan/2010-70076 Land Use	1993 Rancho Conejo Boulevard and 2010 Conejo Center Drive	City of Thousand Oaks	Amendment to the General Plan Land Use Element to Institutional and Specific Plan 7 to City Property; construction of 2,511 square-foot building addition, solar canopy, 5,000 square-foot nursery, 6 compressed natural gas fuel stations, 3,871 square-foot household hazardous waste facility; and improve parking, landscaping, and public access trailhead on adjacent open space property to expand City's Municipal Service Center	Institutional under construction	Less than 0.25 mile east of Segment 3
19	SCE Santa Clara-Colonia 66 kV Line Reconductor	Southwestern Ventura County	Ventura County	Santa Clara-Colonia 66 kV Line becomes overloaded during N-1 outage of Santa Clara-Colonia-Procgen 66 kV Line with Willamette, Camgen, Procgen, and Oxgen	Fiscal Year 2015	7 miles west of Segment 3
20	SCE Capacity and distribution circuit addition at Colonia Substation	Pleasant Valley Rd and Wood Rd	City of Camarillo	Capacity increase will relieve loading from Camarillo Substation due to new developments in South Camarillo near Colonia Substation	Fiscal Year 2015	7 miles west of Project Segment 3
21	SCE Presidential Substation Project – System Alternative A	Northeastern portion of the City of Thousand Oaks near the jurisdictional boundary of the City of Simi Valley	City of Thousand Oaks, City of Moorpark	Upgrades to Royal and Moorpark substations to serve new load growth in the area	EIR approved by CPUC; not under construction	3 miles southeast of the Moorpark Substation
22	SD4410	Northeast of Voltaire Way	Ventura County	Request for approval of a Tentative Tract Map to subdivide six lots into fifteen lots in the community of Santa Rosa Valley, totaling 49.79 acres, for future residential construction; the proposed lots will range in size from 1.96 acres to 6.85 acres	Completeness review in progress	0.1 mile east of Segment 2
23	Draft Santa Rosa Valley Master Trail Plan	Located between the cities of Moorpark and Thousand Oaks.	Ventura County	The Ventura County Resource Management Agency is preparing a Trail Master Plan for the Santa Rosa Valley, located between the cities of Moorpark and Thousand Oaks; the Trail Master Plan would recognize a formal system of "multi-use trails" for pedestrians, bicyclists, equestrians, and other users	The Draft Trail Master Plan was circulated in August 2014; the final Master Plan anticipated to be completed by the end of 2014	Proposed trail concepts would cross portions of Segment 2

SOURCES: City of Moorpark, 2014a, 2014b, 2014c, and 2014d; City of Thousand Oaks, 2014a, 2014b and 2014c; SCE, 2014; County of Ventura, 2014a, 2014b, and 2014c; Ventura County RMA, 2014.



SOURCE: City of Moorpark, 2014a, 2014b, 2014c, and 2014d;
City of Thousand Oaks, 2014a, 2014b and 2014c; SCE, 2014;
County of Ventura, 2014a, 2014b, and 2014c; Ventura County RMA, 2014.

Moorpark-Newbury 66 kV Subtransmission Line Project. 207584.15

Figure 7-1
Cumulative Projects

infrastructure (described in the impact analysis above), including transmission lines and substations, have compromised the existing visual setting in the Proposed Project vicinity. The Proposed Project, along with the past, present, and reasonably foreseeable projects, would not create a cumulatively significant effect because it would not dominate the landscape setting or significantly alter existing scenic quality or viewsheds. The Proposed Project's contribution would not be cumulatively considerable (Class II).

7.2.2 Agriculture and Forestry Resources

The local geographic scope for the analysis of cumulative impacts related to the conversion of Farmland to non-agricultural use consists of the agricultural areas surrounding the Proposed Project alignment, identified as the Santa Rosa Valley, Las Posas Hills, and Little Simi Valley regions on the Ventura County Important Farmland map (CDC, 2012). Cumulative impacts to which the Proposed Project could contribute could be ongoing, including past the operational lifetime of the Proposed Project, if a long-term conversion of agricultural land to non-agricultural uses would occur.

The Proposed Project and alternatives would have no impact with respect to conflicting with agricultural zoning or a Williamson Act contract, conflicting with or causing rezoning of forest land or timberland, converting forest land to non-forest use, or involving other changes in the environment that could convert Farmland or forest land. Therefore, there would be no cumulative impact related to these concerns to which the Proposed Project or an alternative could contribute.

The Proposed Project would have a less-than-significant impact related to the conversion of Farmland to non-agricultural use (Class III). This impact would be limited to temporary disturbance within an area designated as *Prime Farmland* associated with the installation and removal of the proposed guard structures north of pole location 24, and temporary helicopter landing in an area designated as *Unique Farmland* west of Pole 27. Neither area currently is in agricultural production. The temporary uses associated with the Proposed Project are not expected to permanently convert these locations to non-agricultural use.

One of the projects listed in Table 7-1, *Cumulative Scenario – Approved and Pending Projects,* has the potential to convert Farmland to non-agricultural use. To the extent that Project 13, the Los Angeles Avenue widening, would occur on the southern side of the current Los Angeles Avenue alignment west of Tierra Rejada Road, some permanent disturbance is likely to occur within an area designated as *Prime Farmland*. While the extent of disturbance within *Prime Farmland* is not yet known, it is likely to be minor (less than 2 acres) (City of Moorpark, 2014). No other project in the cumulative scenario within the local geographic scope would be located on or otherwise result in the conversion of Farmland to non-agricultural use.

The Proposed Project's negligible effect on Farmland currently in agricultural use, in combination with the less than 2 acres of *Prime Farmland* potentially converted to non-agricultural use for the Los Angeles Avenue widening, would not create a significant cumulative effect on Farmland in the local geographic scope. No parcels would be reduced below the 40-acre minimum for *Agricultural-Exclusive* zoning, and both the Proposed Project and the Los Angeles Avenue widening would

occur along existing ROW, and would not represent a new encroachment into an agricultural area. The Proposed Project's contribution would not be cumulatively considerable (Class III).

At the countywide level, in the 10-year period between 2002 and 2012, Ventura County experienced a loss of 7,431 acres of Farmland, or approximately 7 percent of total Farmland in the county (CDC, 2013). Based on this trend of historic loss of Farmland, continued loss is likely due to ongoing development, despite agricultural conservation programs such as the Williamson Act. Current and reasonably foreseeable future development throughout agricultural regions of the county would contribute to this anticipated loss. Although the impact of this overall trend of loss of Farmland is significant, the Proposed Project's temporary disturbance of lands not currently in agricultural production is not cumulatively considerable, as it would not contribute to a long-term conversion of land to non-agricultural uses (Class III).

7.2.3 Air Quality

The geographic scope considered for potential cumulative impacts to air quality is the South Central Coast Air Basin (SCCAB). In developing thresholds of significance for air pollutants, air districts consider the emission levels for which a project's individual emissions would be cumulatively considerable. Therefore, if a project would exceed the identified significance thresholds, its emissions would be cumulatively considerable, and if a project would not exceed the significance thresholds, its emissions would not be cumulatively considerable.

Proposed Project-related construction activities, as described in Section 5.3, *Air Quality*, under Impacts 5.3-1 and 5.3-2, would result in short-term emissions of nitrogen oxides (NOx) that would exceed the significance threshold. Therefore, short-term construction-related NOx emissions would be cumulatively considerable and associated cumulative impacts would be significant when combined with the emissions-related impacts of the cumulative projects described in Section 7.1, *Projects Considered in the Cumulative Analysis,* to the extent such projects would be constructed concurrently with the Proposed Project. Mitigation Measure 5.3-1 would reduce emissions of NOx during construction activities, but the short-term impact would remain significant and unavoidable. Therefore, when considered with the NOx emissions of other projects, the Proposed Project-specific impact would be cumulatively considerable and the cumulative impact would be significant and unavoidable (Class I). The implementation of Mitigation Measure 5.3-2 would reduce Proposed Project emissions of fugitive dust to a less-than-significant level; therefore, the associated cumulative impact would be mitigated to a less-than-significant level (Class II). All other criteria pollutant emissions would not be cumulatively considerable and would result in less-than-significant cumulative impacts (Class III).

With regard to impacts on sensitive receptors, the total diesel particulate matter (DPM) emissions from on-site equipment that would be required to construct the Proposed Project would be limited to use for a maximum of 2 weeks at any one sensitive receptor location (see Section 5.3, *Air Quality*, Impact 5.3-6). Because these emissions are evaluated relative to the 70-year exposure used in health risk assessments, the health risk from the short-term DPM emissions that would be associated with construction of the Proposed Project would not be cumulatively considerable and the associated cumulative impact would be less than significant (Class III).

Construction of the Proposed Project would cause a less-than-significant impact related to the generation of odors from diesel equipment emissions because construction activities would be intermittent and spatially dispersed, and associated odors would dissipate quickly. There is no existing adverse cumulative condition related to odors to which the Proposed Project could contribute. Projects in the cumulative scenario are not expected to cause diesel-related odors that would intermingle with those of the Proposed Project and, thereby, cause a significant cumulative effect. The incremental odor-related impact of the Proposed Project would not be cumulatively considerable and the associated cumulative impact would be less than significant (Class III).

Long-term operation and maintenance of the Proposed Project would not cause emissions that would exceed the operational significance thresholds (see Section 5.3, *Air Quality*, Impact 5.3-3). Therefore, long-term emissions of the Proposed Project would not be cumulatively considerable.

7.2.4 Biological Resources

The geographic context for the analysis of cumulative impacts associated with biological resources varied depending upon the considered species or resource, but the analysis typically included areas within 1 mile of the Proposed Project's components and alternatives that would affect similar habitat or biological resources.

Proposed Project activities within special-status plant habitat and designated critical habitat for Lyon's pentachaeta would only occur following rare plant surveys, and areas supporting Lyon's pentachaeta would be flagged prior to Proposed Project activities by a qualified biologist and avoided during construction. Following the application of applicant proposed measures (APMs) and mitigation measure 5.4-1a and 5.4-1b, impacts to special-status plants would be less than significant. No other projects were identified in the cumulative scenario area that would affect Conejo dudleya, Lyon's pentachaeta, or other special-status plants. Thus, the Proposed Project would not impact special-status plants and would not cumulatively contribute to the loss or habitat degradation for regionally occurring rare plants (Class II).

There is a low to moderate potential that the Proposed Project could encounter several non-listed special-status reptile species during construction. These include silvery legless lizard, western pond turtle, coast horned lizard, two-striped garter snake, and South Coast garter snake. Habitat for these species would not be substantially modified by the Proposed Project and potential impact to individual animals would only occur during construction, if at all. Mitigation Measure 5.4-2 mitigates the potential impact to less than significant through preconstruction surveys and relocation of special-status reptiles from work areas. No other cumulative scenario projects were identified that would impact special-status reptiles. Thus, the Proposed Project would not impact special-status reptiles and would not cumulatively contribute to the loss or degradation of habitat for these species (Class II).

Under the cumulative scenario, two projects were identified that could impact potential coastal California gnatcatcher habitat. Located in the City of Thousand Oaks, pending Special Use Permits and associated development at 1993 Rancho Conejo Boulevard and 2010 Conejo Center Drive could impact an unknown acreage of potential coastal California gnatcatcher habitat (see Table 7-1,

Cumulative Scenario – Approved and Pending Projects, Map ID #18). No other cumulative scenario projects were identified that would affect coastal California gnatcatcher or habitat for this species. Neither the Proposed Project nor pending Special Use Permits are located in designated critical habitat for coastal California gnatcatcher. As discussed in Impact 5.4-3, construction of the Proposed Project could result in temporary impacts to coastal California gnatcatcher habitat. Such losses would occur on approximately 0.07 acre of habitat that occurs on a 370 linear foot stretch of Segment 4 access road that would undergo improvements. For the portion of the Special Use Permit projects that may occur within coastal sage scrub habitat, impacts would not substantially disturb undeveloped coastal sage scrub habitat that supports coastal California gnatcatchers. Given the absence of coastal California gnatcatchers in potential habitat areas, which were recently surveyed by Leopold Biological Services (2014), and the large amount of surrounding habitat for this species, the Proposed Project impact to coastal sage scrub habitat and the coastal California gnatcatcher is considered less than cumulatively considerable (Class II). No development projects were identified that would cause the loss of designated critical habitat for coastal California gnatcatcher.

The Proposed Project would have no impact on nesting raptors or other protected birds. Consequently, the Proposed Project would not cause or contribute to significant cumulative effects with respect to these resources. Through pole upgrades, the Proposed Project would reduce the likelihood that raptors would be electrocuted or collide with facilities. This would be a beneficial effect of the Proposed Project.

No wetland impacts were identified during the analysis of the Proposed Project or other projects in the cumulative study area. Therefore, impacts of the Proposed Project to jurisdictional wetlands and other waters of the United States do not constitute a cumulatively considerable impact.

Similarly, no impacts were identified to the movement of native upland wildlife species or regarding interference with established native resident or migratory wildlife corridors for the Proposed Project or other projects in the cumulative study area. Thus, impacts of the Proposed Project to these resources do not constitute a cumulatively considerable impact.

7.2.5 Cultural Resources

The geographic scope of analysis for cultural resources includes an area within roughly 2 miles of the Proposed Project alignment, including the Little Simi Valley, Las Posas Hills, Santa Rosa Valley, Calleguas Hills, and Conejo Valley. This geographic scope of analysis is appropriate because the archaeological and historical resources within this radius are expected to be similar to those that occur on the proposed construction sites because of their proximity; similar environments, landforms, and hydrology would result in similar land-use, and thus, site types. Paleontological resources can be degraded either through damage or destruction of fossils or damage or destruction of the sensitive geologic formation surrounding the fossils. The geographic scope of cumulative impacts to paleontological resources would include the portions of the Proposed Project in geologic units of high paleontological potential and areas adjacent to these portions of the Proposed Project, because if the Proposed Project and an adjacent project both

excavated to the same depth(s) in the same geologic unit, the two projects could together remove fossils and the surrounding indicators of the presence of those particular fossils, which would be a greater loss of information than if just one of the projects were implemented.

These geographic areas of analysis constitute a large enough area to encompass any effects of the Proposed Project on cultural resources that may combine with similar effects caused by other projects, and provides a reasonable context wherein cumulative actions could affect cultural and paleontological resources. The Proposed Project could cause impacts on cultural and paleontological resources during the construction period or as a result of operation and maintenance activities.

As described in Section 7.1, *Projects Considered in the Cumulative Analysis*, multiple projects, including construction and widening of roads, construction of transmission lines, and residential developments, are proposed throughout the geographic area of analysis for cumulative impacts. Cumulative impacts to cultural and paleontological resources in the geographic area of analysis could occur if other existing or projects, in conjunction with the Proposed Project or an alternative, had or would have impacts on cultural resources that, when considered together, would be significant.

The geographic area of analysis contains a significant archaeological and historical record that, in many cases, has not been well documented or recorded. There is the potential for ongoing and future development projects in the vicinity to disturb landscapes that may contain known or unknown cultural resources. Thus, potential construction impacts of the Proposed Project or an alternative, in combination with other projects in the area, could contribute to a cumulatively significant impact on cultural resources. However, mitigation measures are included in this Environmental Impact Report (EIR) to reduce potentially significant project impacts to cultural resources during construction of the Proposed Project or an alternative. With implementation of Mitigation Measures 5.5-1a through 5.5-1d, in conjunction with APM CUL-1, the Proposed Project or an alternative would not contribute considerably to cumulative impacts to historical and archaeological resources, and the cumulative impacts would be less than significant (Class II).

Excavation activities associated with the Proposed Project or an alternative in conjunction with other projects in the area could contribute to the progressive loss of fossil remains, associated geological and geographic data, and fossil bearing strata, which is a potentially significant impact. However, the Proposed Project would have a less-than-significant impact to paleontological resources with incorporation of Mitigation Measure 5.5-3. Therefore, with the implementation of Mitigation Measure 5.5-3, cumulative impacts to paleontological resources would be less than significant (Class II). Furthermore, implementation of APM CUL-2 provides a mechanism to reduce impacts to human remains should they be encountered during ground-disturbing activities, and cumulative impacts to human remains would be less than significant (Class III).

7.2.6 Energy Conservation

As analyzed in Section 5.6, *Energy Conservation*, the Proposed Project would have no impact on local and regional energy supplies and capacity, peak and base period demands for electricity and other forms of energy, and would not conflict with existing energy standards or adversely affect existing energy resources. Therefore, the Proposed Project would not cause or contribute to any cumulative impact related to these criteria. The geographic scope of potential cumulative effects with respect to energy conservation includes the electric grid to which Proposed Project subtransmission would contribute and areas from which transportation fuels would be provided (for this EIR, publicly available fuel sources in the vicinity of the Proposed Project site). The Proposed Project would cause less-than-significant impacts relating to wasteful or inefficient consumption of energy, and use of transportation energy. The operational electricity requirements would be negligible.

The Proposed Project's less-than-significant incremental impact relating to the consumption of energy would not be cumulatively considerable. The Proposed Project's less-than-significant incremental impact relating to the use of transportation energy and efficient use of transportation alternatives is not expected to combine with the incremental impacts of other projects to cause an adverse cumulative impact on energy conservation. Proposed Project-related transportation impacts would be limited to the construction phase, which could overlap with the transportation needs (including fuel needs) of previously approved past projects, as well as other present or future projects that occur during the Proposed Project's construction activities. Regardless, there is no significant cumulative condition to which the Proposed Project could contribute, and given the Proposed Project's less-than-significant incremental impact, the Proposed Project itself would not cause a significant cumulative impact. Therefore, the Proposed Project's less-than-significant incremental usage of transportation energy would not be cumulatively considerable.

The Proposed Project, in combination with the projects listed in Table 7-1, *Cumulative Scenario – Approved and Pending Projects,* would require the use of nonrenewable, fossil fuel-based energy resources during construction. If the cumulative projects and the Proposed Project were to use energy resources in a wasteful manner, it would conflict with state and local energy standards. Proposed Project construction would be short-term and all aspects of Proposed Project construction, operation, and maintenance would be consistent with the goals and strategies of local and state energy standards. Therefore, the Proposed Project would not make a cumulatively considerable contribution to cumulative conditions related to conflicts with energy conservation standards.

7.2.7 Geology and Soils

Impacts on geology and soils are generally localized and do not result in regionally cumulative impacts. Geologic conditions can vary significantly over short distances creating entirely different effects elsewhere. Unless a project would alter the soils and rock underlying other adjacent projects or affect surrounding land due to landslides, impacts related to geologic, soils, and seismic hazards would be limited to a project site. The geographic scope of cumulative impacts related to geologic, soils, or seismic hazards therefore includes the Proposed Project site and any

projects immediately adjacent to it. Potential impacts of the Proposed Project include: exposure of structures to seismic ground shaking and liquefaction; creation or worsening of landsliding risks at or around the Proposed Project site; exposure of soil to erosive forces; and placement of structures on unstable or expansive soil. However, with the incorporation of standard construction and engineering practices and the APMs, all geologic, soils, and seismic hazard impacts of the Proposed Project would be less than significant. The Santa Clara Valley Master Trail Plan would include trail improvements adjacent to the Proposed Project alignment and could have similar impacts to the potential impacts of the Proposed Project identified above, including creation or worsening of landsliding risks and exposure of soil to erosive forces. However, no Proposed Project construction activity would occur in the locations where the Proposed Project intersects the trail improvements. Accordingly, no significant cumulative impact would result from the cumulative scenario to which the Proposed Project's incremental impact could contribute.

7.2.8 Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions are inherently a cumulative concern, in that the significance of GHG emissions is determined based on whether such emissions would have a cumulatively considerable impact on global climate change. Although the geographic scope of cumulative impacts related to GHG emissions is global, this analysis focuses on impacts associated with potential conflicts with California's reduction goals set forth in Executive Order S-6-05 and Assembly Bill (AB) 32 and the Proposed Project's direct and/or indirect generation of GHG emissions. The Proposed Project would result in less-than-significant emissions of GHG and would not conflict with the state's GHG reduction goals. Therefore, the Proposed Project-specific incremental impact associated with GHG emissions would not be cumulatively considerable and the cumulative impact would be less than significant (Class III).

7.2.9 Hazards and Hazardous Materials

The Proposed Project would increase the hazard potential in the Proposed Project area. However, it is unlikely that the Proposed Project, combined with the other projects listed in Table 7-1, *Cumulative Scenario*, would contribute to a significant cumulative hazards or hazardous materials related impact because impacts related to hazards and hazardous materials are generally site specific. Therefore, cumulative impacts would only be likely to occur with other projects that are constructed within the immediate vicinity of the Proposed Project.

Several of the cumulative projects identified in Section 7.1, *Projects Considered in the Cumulative Analysis*, would be within the immediate vicinity of the Proposed Project, including two road widening projects, a specific plan, and a master plan. These types of projects, combined with the Proposed Project, would not result in a cumulative impact even if all of the projects were to be constructed simultaneously. In addition, proposed mitigation measures would ensure that the Proposed Project's contribution to construction-related hazards and hazardous materials cumulative impacts would be less than cumulatively considerable (i.e., because the Proposed Project's contribution to any potential cumulative impact would be site specific and would be mitigated to a less-than-significant level). Therefore, cumulative impacts related to hazards and hazardous materials would be less than significant (Class II and/or Class III).

7.2.10 Hydrology and Water Quality

The geographic context for the cumulative impacts associated with hydrology and water quality consists of the watershed (for surface waters) and the groundwater basins in the vicinity of the Proposed Project. A substantial body of law including federal, state, and local water quality regulation, governs this area. Compliance with all of these laws, as applicable, would avoid or substantially reduce the environmental impacts of the cumulative projects identified in Section 7.1, *Projects Considered in the Cumulative Analysis*. The cumulative projects, similar to the Proposed Project, lie within the Calleguas Creek watershed, and all but three (i.e., cumulative projects 19 through 21; see Table 7-1, *Cumulative Scenario – Approved and Pending Projects*, and Figure 7-1, *Cumulative Projects*) would be within the same groundwater basin setting as the Proposed Project.

The Proposed Project, along with other projects involving similar general construction activities, would be required to obtain coverage under the California State Water Resources Control Board (SWRCB) General Permit, Section 401 of the Clean Water Act (CWA) water quality certification, and/or waste discharge requirements (WDRs) under the Porter-Cologne Act, Chapter 4, Article 4 of the Porter-Cologne Act (California Water Code, §13260-13274). Storm water management measures would be required to be identified and implemented that would effectively control erosion, sedimentation, and other construction related pollutants during construction. Further, all of the cumulative projects that would qualify as a new development or redevelopment project under the provisions of the Ventura County Municipal Separate Storm Sewer Systems (MS4) Permit would be required to implement the storm water quality management measures stipulated in that permit and in the *Ventura County Technical Guidance Manual for Stormwater Quality Control Measures* (Ventura County TGM; 2011). According to the Ventura County MS4 Permit, new development projects include all development projects equal to 1.0 acre or greater of disturbed area that add more than 10,000 square feet of impervious surface area.

Other management measures, such as construction of infiltration/detention basins, would be required to be identified and implemented that would effectively treat pollutants that would be expected for the post-construction land use for certain projects. Construction and operational related storm water runoff from the Proposed Project would be controlled by the requirements of a National Pollutant Discharge Elimination System (NPDES) permit (e.g., General Permit), WDRs, and mitigation measures required as part of this EIR. Other new development in the area would also be required to control construction and operational storm water by implementing state and local requirements regarding hydrology and water quality, as well as requirements introduced through CEQA review where applicable. Therefore, the incremental impacts of the Proposed Project, in combination with other past, present, and reasonably foreseeable projects, would not be cumulatively considerable, and the associated cumulative impact would be less than significant (Class II).

7.2.11 Land Use and Planning

The Proposed Project or an alternative would result in no impact relating to physical division of an established community, nor would they conflict with any applicable habitat conservation plan (HCP) or natural community conservation plan (NCCP) (No Impact). Also, as discussed in Sections 5.11.4, *Impacts and Mitigation Measures*, and 5.11.5, Alternatives, the Proposed Project or an alternative would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Proposed Project or an alternative (No Impact). Because the Proposed Project or an alternative would have no impact pertaining to land use and planning resources, the Proposed Project or an alternative could not combine with impacts of past, present, or reasonably foreseeable future projects to cause or contribute to a cumulative land use and planning-related impact (No Impact).

7.2.12 Mineral Resources

The Proposed Project and alternatives would have no impact on access to mineral resources of statewide or local value and thus would not contribute to any cumulative scenario affecting mineral resources in the area (No Impact).

7.2.13 Noise

Construction of the Proposed Project would result in significant and unavoidable impacts from construction activities with implementation of Mitigation Measures 5.13-1a and 5.13-1b. There would be no Proposed Project vibration-related impacts. Long-term operation and maintenance-related noise impacts associated with the Proposed Project would be less than significant; however, these incremental noise-related impacts could combine with noise generated by projects in the cumulative scenario to cause or contribute to a significant cumulative effect.

Noise levels tend to diminish quickly with distance from a source; therefore, the geographic scope for cumulative impacts associated with noise would be limited to projects located within approximately 1,000 feet of the Proposed Project. As shown in Table 7-1, *Cumulative Scenario – Approved and Pending Projects,* there are several cumulative projects that would be located within 1,000 feet of the Proposed Project that are reasonably foreseeable and could be constructed simultaneously with the Proposed Project.

These cumulative projects include two development projects and two roadway projects in the vicinity of Moorpark Substation. Nevertheless, even if construction of these projects were to occur simultaneously with construction of the Proposed Project in the vicinity of Moorpark Substation, the potential for the Proposed Project's contribution to combined noise levels at nearby sensitive receptors to increase to the point where they would exceed the short-term construction significance threshold (i.e., 90 A-weighted decibels [dBA] equivalent noise level [L_{eq}]) at nearby sensitive receptor locations would be negligible. Therefore, no adverse cumulative effect would occur, and the Proposed Project-specific incremental contribution to cumulative conditions during construction would not be cumulatively considerable (Class III).

During operation of the Proposed Project, the main sources of noise would be corona discharge and routine operation and maintenance activities. However, these sources would not substantially increase ambient noise levels at the nearest sensitive receptor locations, and would not cause a cumulatively considerable contribution to noise generated by other projects in the affected area (Class III).

7.2.14 Population and Housing

Because the Proposed Project and alternatives would have no impact with respect to directly inducing population growth or to the displacement of housing or people, they could not contribute to cumulative effects resulting from such changes. The Proposed Project would have a less-than-significant impact related to indirectly inducing population growth by temporarily employing construction workers and by extending or improving electrical infrastructure into an underserved area.

The geographic scope of potential cumulative impacts associated with population and housing includes southern unincorporated Ventura County and the cities of Moorpark and Thousand Oaks. The temporal scope of impacts would include construction, operation, and maintenance of the Proposed Project, in combination with build-out of the past, present, and reasonably foreseeable future projects listed in Table 7-1, *Cumulative Scenario – Approved and Pending Projects*. Ventura County is expected to undergo moderate growth over the next two decades. By 2035, the population of Ventura County is expected increase approximately 13 percent from 2010 levels to 954,000 persons (CDOF, 2013; SCAG, 2012).

The cumulative projects listed in Table 7-1 include a range of project types from small single-family housing developments and road improvements to industrial projects. These projects, as well as other future development, would be subject to applicable city and/or county planning processes, as well as environmental review on a project-by-project basis. Related housing needs also would be accounted for in the Southern California Association of Governments (SCAG) Regional Housing Needs Assessment (RHNA). Consequently, build-out of the cumulative projects is not expected to result in the inducement of substantial direct or indirect population growth in the area beyond what is planned. Furthermore, the Proposed Project is designed to increase reliability and to address forecasted overloads, rather than to induce growth. Therefore, the Proposed Project would not represent a cumulatively considerable incremental contribution to a cumulative population. The associated cumulative impact would be less than significant (Class III).

7.2.15 Public Services

As described in Section 5.15, *Public Services*, the Proposed Project and alternatives would result in no impact to public services. Therefore, neither the Proposed Project nor the alternatives would cause or contribute to a significant cumulative impact to public services (No Impact).

7.2.16 Recreation

The geographic scope of potential cumulative impacts to recreation includes the park and recreation-related facilities in the Proposed Project area which are located within 1.0 mile of the Proposed Project and alternatives, in unincorporated Ventura County and the cities of Moorpark and Thousand Oaks. As described in Section 5.16, *Recreation*, the Proposed Project would result in no impacts to recreation during operations or maintenance. Accordingly, the timeframe within which the Proposed Project could contribute to any adverse cumulative condition would be limited to the construction period.

The past, present, and reasonably foreseeable future projects described in Section 7.1, *Projects Considered in the Cumulative Analysis*, include several residential development projects in the cities of Moorpark and Thousand Oaks that could increase the demand on existing and/or result in the need for new recreational facilities within the Proposed Project vicinity by increasing the population in the Proposed Project area. Table 7-1, *Cumulative Scenario – Approved and Pending Projects*, also includes the Draft Santa Rosa Valley Master Trail Plan, which would recognize a formal system of "multi-use trails" for pedestrians, bicyclists, equestrians, and other users in the Santa Rosa Valley.

However, because the Proposed Project would cause no incremental demand on recreational facilities once construction is complete, it would not contribute to the long-term cumulative demand from the other planned development projects. In the short-term, the incremental impact of the Proposed Project would not be cumulatively considerable with respect to the occurrence or acceleration or deterioration at existing neighborhood and regional recreational facilities. Similarly, the temporary Proposed-Project related disruption of recreational facilities, including potential blockage of trails in the Conejo Open Space area, in combination with the incremental impact of other projects in the cumulative scenario, would not have a cumulatively considerable adverse effect on the recreational value of these existing facilities. If the Santa Rosa Valley Master Trail Plan is implemented prior to or during construction of the Proposed Project or alternatives, potential impacts would be similar to those described under Impact 5.16-1 in Section 5.16, *Recreation*, and would be less than significant. The incremental effect of the Proposed Project and alternatives on recreational facilities, in combination with the other past, present and reasonably foreseeable project, would not be cumulatively considerable (Class III).

7.2.17 Transportation and Traffic

The geographic scope for cumulative impacts associated with transportation and traffic issues includes the regional and local roadways that may be used to access the Proposed Project work sites or that could otherwise be adversely affected by vehicle movements associated with construction, operation, or maintenance activities. The temporal context for the cumulative transportation and traffic impacts includes the Proposed Project's construction and operation and maintenance phases. The temporary and short-term construction-related traffic impacts that would be associated with the Proposed Project would be related to truck routes and construction area access routes used by Proposed Project -workers and material haulers, air traffic patterns affected by the Proposed Project's use of helicopters for some construction activities as well as

affected by the transmission lines themselves, and access for emergency service vehicles. In conjunction with other projects identified in Table 7-1, *Cumulative Scenario – Approved and Pending Projects,* significant cumulative impacts could occur if construction activities (i.e., truck and worker trip-generating activities) for those other projects were to overlap (in time and place) with the Proposed Project. Pursuant to APM TRA-1, SCE would implement, as part of the Proposed Project, recommendations contained in the California Joint Utility Traffic Manual (CJUTCM) including consulting and coordinating with local jurisdictions to ensure the safe and efficient transit of vehicles, trains, bicyclists, and pedestrians adjacent to laydown and work areas (see Section 5.17, *Transportation and Traffic*). In conjunction with implementation of Mitigation Measure 5.17-7, the Proposed Project's contribution to any transportation and traffic-related cumulative impacts during construction would not be cumulatively considerable and the associated cumulative impacts would be less than significant with mitigation (Class II).

During operation, the increase in traffic due to maintenance activities to maintain the new and reconductored subtransmission lines and the associated corridors would be inconsequential (fewer than 15 vehicle trips per month). Operation of the Proposed Project would not result in transportation and traffic impacts that would be cumulatively considerable, and the associated cumulative impact would be less than significant (Class III).

7.2.18 Utilities and Services Systems

The Proposed Project would have no impact with respect to wastewater treatment requirements, water or wastewater treatment facilities, stormwater drainage facilities, wastewater treatment capacity, or solid waste regulations. Therefore, the Proposed Project would not cause or contribute to significant cumulative impacts in these areas. The cumulative analysis provided below considers the incremental impacts related to water consumption and landfill capacity caused by the Proposed Project and alternatives, in combination with other past, present, and reasonably foreseeable future projects.

The geographic scope of potential cumulative impacts to utilities and service systems includes southern unincorporated Ventura County and the cities of Moorpark and Thousand Oaks. The Proposed Project would result in no impacts to utilities during operation or maintenance. Accordingly, the timeframe within which the Proposed Project could contribute to any adverse cumulative condition would be limited to the construction period. Construction activities associated with the Proposed Project would not result in significant impacts that would affect the ability of Ventura County, the cities of Moorpark and Thousand Oaks, and other service providers to effectively deliver public water supply, solid waste, and other utility services in the service area. The past, present, and reasonably foreseeable future projects described in this chapter include several development projects planned in the vicinity of the Proposed Project area that may impact utility services. These include numerous subdivisions for single- and multi-family residences, construction of commercial and municipal buildings, upgrades to utility infrastructure, roadway improvements, and a master plan for a recreational area. It is likely that this cumulative development would require the use of water and utility service infrastructure, such as landfills to support the planned growth. However, these planned developments would be required to comply

with all federal, state, and local regulations and ordinances protecting utility services, as well as water conservation measures and waste minimization efforts in accordance with Ventura County and cities of Moorpark and Thousand Oaks requirements. Further, because the Proposed Project's demand for utility and service systems would occur only during the construction period, no significant cumulative impact would result from the cumulative scenario to which the Proposed Project's incremental impact could contribute (Class III).

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CHAPTER 8
Other CEQA Considerations

8.1 Significant Unavoidable Environmental Effects

Section 15126.2(b) of the California Environmental Quality Act (CEQA) Guidelines requires that an Environmental Impact Report (EIR) identify significant environmental effects of the Proposed Project that cannot be avoided, including those that can be mitigated, but not to a less-than-significant level. The Proposed Project would result in short term impacts to air quality and noise-sensitive receptors, that even with implementation of mitigation measures, would remain significant unavoidable. Construction activities from the Proposed Project would generate ozone precursor emissions (i.e., nitrogen oxides [NO_x]) that could contribute substantially to a violation of ozone air quality standards, and would result in pollutant emissions of NO_x that would be cumulatively considerable. Construction activities would also generate noise levels in unincorporated Ventura County that would exceed Ventura County construction noise threshold criteria and potential construction-related nighttime noise levels would substantially increase ambient noise levels in the cities of Moorpark and Thousand Oaks.

As discussed in Chapter 4, *Project Alternatives*, a number of alternatives were analyzed to determine if they could meet the most basic Proposed Project objectives while avoiding or minimizing the significant impacts associated with the Proposed Project. Only Alternative 4 (Reconnect the Camgen Generator to the Moorpark Subtransmission System) would reduce the air quality and noise-related impacts that would be associated with the Proposed Project; however, this alternative was eliminated from full consideration in this EIR because it would not be a suitable long-term solution to avoid projected voltage violations. None of the other identified alternatives that would meet the essential objectives and feasibility criteria would reduce impacts associated with the Proposed Project to a less-than-significant level. Accordingly, impacts to air quality and noise-sensitive receptors could not be alleviated through development of alternatives.

8.2 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 nonrenewable resources, or provision of access to previously inaccessible areas, as well as project accidents that could change the environment in the long-term. Development of the Proposed Project would require a permanent commitment of natural resources resulting from the direct consumption of fossil fuels, construction materials, the manufacture of new equipment that largely cannot be recycled at the end of the Proposed

Project's useful lifetime, and energy required for the production of materials. Furthermore, construction of the Proposed Project would also result in loss of a nominal amount of habitat from pole bases and access roads that provide habitat that can support special-status species. However, as evaluated in Section 5.4, *Biological Resources*, while the Proposed Project would impact biological resources, with implementation of mitigation and applicant proposed measures, impacts to biological resources would be less than significant.

Operation of the Proposed Project would allow for the transport of additional electrical power generated from renewable and non-renewable resources, although the Proposed Project itself would not require the future use of specific amounts of non-renewable resources. While the Proposed 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 Proposed Project, as the production and use of the carbon-based products that would become electricity transported by the Proposed Project has been, or will be, approved by permitting agencies. Therefore, the primary and secondary impacts resulting from the Proposed Project would be less than significant.

Accidents, such as the release of hazardous materials, could trigger irreversible environmental damage. As discussed in Section 5.8, *Hazards and Hazards Materials*, construction of the Proposed Project would involve limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, etc., 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 and, if a spill were to occur of significant quantity, the release could pose a hazard to construction workers, the public, as well as the environment. Considering the types and minimal quantities of hazardous materials that would be used for the Proposed Project and the emergency response plans and other procedures that would be required by the recommended mitigation measures, accidental release is unlikely. State and federal regulations and safety requirements, as described in the regulatory setting in Section 5.8 would ensure that public health and safety risks are maintained at acceptable levels, so that significant irreversible changes from accidental releases are not expected.

8.3 Growth-Inducing Effects

CEQA requires a discussion of the ways in which a project could induce growth. Section 15126.2(d) of the CEQA Guidelines identifies an impact as growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. New employees hired for proposed commercial and industrial development projects and population growth resulting from residential development projects represent direct forms of growth. Other examples of projects that are growth-inducing are the expansion of urban services into a previously unserved or under-served area, the creation or extension of transportation links, or the removal of major obstacles to growth. It is important to note that these direct forms of growth have secondary effects of expanding the size of local markets and attracting additional economic activity to the area.

Typically, the growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

8.3.1 Growth Caused by Direct and Indirect Employment

The number of workers required during peak construction would be a maximum of 217 construction personnel working on any given day. The Proposed Project construction activities would be temporary, estimated to last approximately 10 months. It is anticipated that all temporary positions would be filled from the local labor pool available in Ventura County, with workers expected to commute to the site rather than move. However, some construction personnel may need temporary accommodations. There is an adequate supply of hotels and motels in the Proposed Project area that could be utilized by the out-of-town personnel. Therefore, no growth in residential services would occur.

Proposed Project operation and maintenance would require minimal staffing that would be handled by current Southern California Edison (SCE) employees. Therefore, no new permanent jobs would be created. Overall, employment generated by the Proposed Project would have no impact on population growth because any short-term housing demand created during construction could be accommodated by existing units and no long-term growth would result from operation and maintenance of the Proposed Project.

8.3.2 Growth Related to Provision of Additional Electric Power

Construction of the Proposed Project is needed to meet electric system reliability and planned demand in the Moorpark System. The Moorpark System serves customers located in the communities of western Simi Valley, Moorpark, Thousand Oaks, Newbury Park, Westlake Village, Agoura, Agoura Hills, Oak Park, Hidden Hills, Topanga Canyon, Calabasas, Malibu, and portions of eastern unincorporated Ventura County, as well as portions of western unincorporated Los Angeles County. Therefore, the Proposed Project is designed to increase reliability and accommodate existing and planned electrical load growth, rather than to induce growth.

Growth in the Moorpark System is planned and regulated by applicable local general plans and planning and zoning ordinances. The provision of electricity is generally not considered an obstacle to growth nor does the availability of electrical capacity by itself normally ensure or encourage growth within a particular area. Other factors such as economic conditions, land availability, population trends, availability of water supply or sewer services, and local planning policies have a more direct effect on growth. Therefore, the Proposed Project would not indirectly induce growth by creating new opportunities for local industry or commerce.

SECTION 9
Report Preparation

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CHAPTER 10

Mitigation Monitoring, Reporting, and Compliance Program

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MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM

SOUTHERN CALIFORNIA EDISON'S
MOORPARK-NEWBURY 66 KV SUBTRANSMISSION LINE
PROJECT (APPLICATION NO. A.13-10-021)

INTRODUCTION

This document describes the mitigation monitoring, reporting, and compliance program (MMRCP) for ensuring the effective implementation of the mitigation measures required for approval by the California Public Utilities Commission (CPUC, or Commission) of the application by Southern California Edison (SCE) to construct, operate, and maintain the Moorpark-Newbury 66 kV Subtransmission Line Project (Proposed Project). The MMRCP includes all measures proposed by SCE (applicant proposed measures, APMs), and all mitigation measures identified by the CPUC to reduce potentially significant impacts to less than significant.

If the Proposed Project is approved, this document would serve as a self-contained general reference for the MMRCP adopted by the Commission for the Proposed Project. If and when the Proposed Project is approved by the Commission, the CPUC will compile the Final MMRCP to assure that it includes all measures as adopted in the Final Environmental Impact Report (EIR).

California Public Utilities Commission – MMRCP Authority

The California Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval be implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a mitigation monitoring or reporting program when it approves a project that is subject to preparation of an EIR and where the EIR for the project identifies potentially significant environmental effects. California Environmental Quality Act (CEQA) Guidelines Section 15097 was added in 1999 to further clarify agency requirements for mitigation monitoring and reporting.

The purpose of a MMRCP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMRCP as a working guide to

facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance, and reporting activities of the CPUC and any monitors it may designate.

The Commission will address its responsibility under Public Resources Code Section 21081.6 when it takes action on SCE's application. If the Commission approves the application, it will also adopt this MMRCP that includes the mitigation measures as well as the Applicant Proposed Measures (APMs), implementation of which will ultimately be made a condition of approval by the Commission.

Because the CPUC must decide whether or not to approve the SCE application and because the Proposed Project may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the result of its decisions and to consider mitigation for any identified significant environmental impacts.

If the CPUC approves SCE's application for authority to construct and operate the Proposed Project, SCE would be responsible for implementation of any mitigation measures governing both construction and future operation of the Proposed Project. Though other state and local agencies would have permit and approval authority over some aspects of construction of the subtransmission line, the CPUC would continue to act as the lead agency for monitoring compliance with all mitigation measures required by this EIR. All approvals and permits obtained by SCE would be submitted to the CPUC for mitigation compliance prior to commencing the activity for which the permits and approvals were obtained.

In accordance with CEQA, the CPUC reviewed the impacts that would result from approval of the application. The activities considered include the construction and operation of the new Moorpark-Newbury 66 kV Subtransmission Line and upgrading the existing Moorpark-Newbury-Pharmacy 66 kV Subtransmission Line to address forecasted overloads on a section of the existing line and to enhance reliability and operational flexibility. The CPUC review concluded that Proposed Project implementation could result in significant unmitigable impacts on air quality and noise. All other potential impacts would be less than significant or would be mitigated to less-than-significant levels. The CPUC has included the stipulated mitigation measures as well as SCE's APMs as conditions of approval of the applications and has circulated a Draft EIR.

The attached EIR presents and analyzes potential environmental impacts that would result from construction, operation, and maintenance of the Proposed Project, and proposes mitigation measures as appropriate. Based on the EIR, approval of the application would have no impacts or less than significant impacts in the following areas:

- Agriculture and Forestry Resources
- Energy Conservation
- Geology and Soils
- Greenhouse Gas Emissions
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems

The following environmental issue areas were determined to have potentially significant impacts that would be reduced to less-than-significant levels with mitigation:

- Aesthetics
- Biological Resources
- Cultural Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Transportation and Traffic

The EIR indicates that approval of the application would result in significant unmitigable impacts in the in the areas of:

- Air Quality
- Noise

Roles and Responsibilities

As the lead agency under CEQA, the CPUC is required to monitor this project to ensure that the required mitigation measures and APMs are implemented. The CPUC will be responsible for ensuring full compliance with the provisions of this MMRCP and has primary responsibility for implementation of the monitoring program. The purpose of the monitoring program is to document that the mitigation measures required by the CPUC are implemented and that mitigated environmental impacts are reduced to the level identified in the Program. The CPUC has the authority to halt any activity associated with the Proposed Project if the activity is determined to be a deviation from the approved project or the adopted mitigation measures.

The CPUC may delegate duties and responsibilities for monitoring to other mitigation monitors or consultants as deemed necessary. The CPUC will ensure that the person(s) delegated any duties or responsibilities are qualified to monitor compliance.

The CPUC, along with its mitigation monitor, will ensure that any variance process, which will be designed specifically for the approved project, or deviation from the procedures identified under the monitoring program is consistent with CEQA requirements; no project variance will be approved by the CPUC if it creates new significant environmental impacts. As defined in this MMRCP, a variance should be strictly limited to minor project changes that will not trigger other permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. A change to the approved project that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental CEQA review is required. Any proposed deviation from the approved project and adopted mitigation measures, including correction of such deviation, shall be reported immediately to the CPUC and the mitigation monitor assigned to the construction for their review and CPUC approval. In some cases, a variance also may require approval by a CEQA responsible agency.

Enforcement and Responsibility

The CPUC is responsible for enforcing the procedures for monitoring through the environmental monitor. The environmental monitor shall note problems with monitoring, notify appropriate

agencies or individuals about any problems, and report the problems to the CPUC. The CPUC has the authority to halt any construction, operation, or maintenance activity associated with the approved project if the activity is determined to be a deviation from the approved project or adopted mitigation measures. The CPUC may assign its authority to their environmental monitor.

Mitigation Compliance Responsibility

SCE is responsible for successfully implementing all of the adopted APMs and mitigation measures in this MMRCP. The MMRCP contains criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

SCE shall inform the CPUC and its mitigation monitor in writing of any mitigation measures that are not or cannot be successfully implemented. The CPUC, in coordination with its mitigation monitor, will assess whether alternative mitigation is appropriate and specify to SCE the subsequent actions required.

Dispute Resolution Process

This MMRCP is expected to reduce or eliminate many of the potential disputes concerning the implementation of the adopted measures. However, in the event that a dispute occurs, the following procedure will be observed:

- **Step 1.** Disputes and complaints (including those of the public) should be directed first to the CPUC's designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.

- **Step 2.** Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the approved project or adopted MMRCP.

- **Step 3**. If a dispute or complaint regarding the implementation or evaluation of the MMRCP or the mitigation measures cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC's Executive Director. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days of receipt, the Executive Director or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision, and serve it on the filer and other affected participants.

- **Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the Resolution, such party(ies) may appeal it to the Commission via a procedure to be specified by the Commission.

Parties may also seek review by the Commission through existing procedures specified in the Commission's Rules of Practice and Procedure for formal and expedited relief.

General Monitoring Procedures

Mitigation Monitor

Many of the monitoring procedures will be conducted during the construction phase of the approved project. The CPUC and the mitigation monitor are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with SCE. To oversee the monitoring procedures and to ensure success, the mitigation monitor assigned to the construction must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The mitigation monitor is responsible for ensuring that all procedures specified in this MMRCP are followed.

Construction Personnel

A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures and APMs require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures included in this MMRCP, will be taken:

- SCE shall require all contractors to comply with the conditions of project approval, including all applicable APMs and mitigation measures.
- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the MMRCP.
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all APMs mitigation measures requiring their attention.

General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the mitigation monitor assigned to the construction. A monitoring record form will be submitted to the mitigation monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the mitigation monitor. A checklist will be developed and maintained by the mitigation monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The mitigation monitor will note any problems that may occur and take appropriate action to rectify the problems. SCE shall provide the CPUC with written quarterly reports of the approved project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the approved project. Quarterly reports shall be required as long as mitigation measures are applicable.

Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CPUC on request. The CPUC and SCE will develop a filing and tracking system.

Condition Effectiveness Review

In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a MMRCP to ensure compliance during approved project implementation (Pub. Res. Code §21081.6):

- The CPUC may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined above; and

- If in either review, the CPUC determines that any conditions are not adequately mitigating significant environmental impacts caused by the project, or that recent proven technological advances could provide more effective mitigation, then the CPUC may impose additional reasonable conditions to effectively mitigate these impacts.

These reviews will be conducted in a manner consistent with the CPUC's rules and practices.

Mitigation Monitoring, Reporting and Compliance Program

The table attached to this MMRCP presents a compilation of APMs and mitigation measures in the EIR. The purpose of the table is to provide a single comprehensive list of impacts, APMs, mitigation measures, monitoring and reporting requirements, and timing.

TABLE 10-1
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Aesthetics				
Impact 5.1-2: Use of temporary staging and laydown areas during the construction period would result in adverse impacts to visual quality.	**Mitigation Measure 5.1-2a:** SCE shall not place equipment at the laydown or conductor stringing areas any sooner than two weeks prior to the required use. **Mitigation Measure 5.1-2b:** SCE shall coordinate with the Conejo Open Space Conservation Agency (COSCA) to ensure that designated trails in the vicinity of the Proposed Project are not blocked by the laydown or conductor stringing areas. SCE shall coordinate with COSCA to post signage at trailheads within the Conejo Canyons Open Space area, alerting recreationalists to construction locations and dates.	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to monitor compliance.	During all phases of construction activities.
Impact 5.1-3: Use of temporary construction conductor stringing sites during the approximately 10-month construction period could result in adverse impacts to visual quality.	Implement Mitigation Measures 5.1-2a and 5.1-2b.	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to monitor compliance.	During all phases of construction activities.
Impact 5.1-6: If night lighting is required during construction, the Proposed Project could adversely affect nighttime views in the Proposed Project area.	**Mitigation Measure 5.1-6:** SCE shall design and install all lighting at Project facilities, including construction and storage yards and staging areas, such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. SCE shall submit a *Construction Lighting Mitigation Plan* to the CPUC for review and approval at least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SCE shall not order any exterior lighting fixtures or components until the *Construction Lighting Mitigation Plan* is approved by the CPUC. The Plan shall include but is not limited to the following measures: • Lighting shall be designed so exterior lighting is hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the Project boundary.	SCE and its contractors to implement measure as defined.	A *Construction Lighting Mitigation Plan* shall be submitted to the CPUC for review and approval. CPUC mitigation monitor to monitor compliance.	At least 90 days prior to the start of construction. During all phases of the Proposed Project.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Aesthetics (cont.)				
Impact 5.1-6 (cont.)	• All lighting shall be of minimum necessary brightness consistent with worker safety. High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.			
Agriculture and Forestry Resources				
No mitigation required.				
Air Quality				
Air Quality and Fugitive Dust	**APM AQ-1: Air Quality Protection.** SCE has implemented, and would implement, a number of practices, including minimizing equipment idling time and maintaining equipment engines in good condition and in proper tune as per manufacturers' specifications, to reduce emissions. SCE's practices for the control of fugitive dust emissions, which were implemented during past construction activities and would be implemented during future construction activities, incorporate many of the recommended measures described in the Ventura County Air Pollution Control District's (VCAPCD) Model Fugitive Dust Mitigation Plan, which is reproduced verbatim below:[1] 1. The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust. 2. Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	During all phases of construction activities.

[1] This text is taken verbatim, including the parenthetical remark "(indicate by whom)", from the Ventura County Air Quality Control District's Ventura County Air Quality Assessment Guidelines.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Air Quality (cont.)				
Air Quality and Fugitive Dust **(cont.)**	3. Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities: a. All trucks shall be required to cover their loads as required by California Vehicle Code §23114. b. All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible. 4. Graded and/or excavated inactive areas of the construction site shall be monitored by (indicate by whom) at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.[2] 5. Signs shall be posted on-site limiting traffic to 15 miles per hour or less.[3] 6. During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site			

[2] SCE did not/may not always undertake soil stabilization activities in areas that were/are inactive for more than four days due to prohibition of construction activities to protect nesting birds.
[3] SCE did/will not post speed limit signs along the access roads; the design of the roads are not conducive to travel above 15 mph by the types of vehicles used during past construction activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Air Quality (cont.)				
***Air Quality and Fugitive Dust* (cont.)**	activities and operations from being a nuisance or hazard, either off site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the APCD in determining when winds are excessive. 7. Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads. 8. Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.			
Impact 5.3-1: Construction activities would generate exhaust emissions that could contribute substantially to a violation of an air quality standard**.**	**Mitigation Measure 5.3-1:** For diesel-fueled off-road construction equipment of more than 50 horsepower, SCE shall make a good faith effort to use available construction equipment that meets the highest USEPA-certified tiered emission standards. An Exhaust Emissions Control Plan that identifies each off-road unit's certified tier specification and Best Available Control Technology (BACT) shall be submitted to the CPUC for review and approval at least 30 days prior to commencement of construction activities. Construction activities cannot commence until the plan has been approved. For all pieces of equipment that would not meet Tier 3 emission standards, the Exhaust Emissions Control Plan shall include documentation from two local heavy construction equipment rental companies that indicates that the companies do not have access to higher-tiered equipment for the given class of equipment.	SCE and its contractors to implement measure as defined.	SCE to submit a copy of the Exhaust Emissions Control Plan to CPUC for review and approval.	At least 30 days prior to commencement of construction activities.
Impact 5.3-2: Construction activities would generate fugitive dust emissions that could contribute substantially to an existing or projected air quality violation.	**Mitigation Measure 5.3-2:** SCE shall reduce construction-related fugitive dust emissions by implementing the following VCAPCD dust control measures. SCE shall require all contractors to comply with the following requirements:	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance.	Prior to commencement of construction activities, and during all phases of construction activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Air Quality (cont.)				
Impact 5.3-2 (cont.)	1. The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust. 2. Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities. 3. Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities: a. All trucks shall be required to cover their loads as required by California Vehicle Code Section 23114. b. All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible. 4. Graded and/or excavated inactive areas of the construction site shall be monitored by SCE's mitigation monitor at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over 4 days as long as there are no prohibitions of construction activities in the area to protect nesting birds. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.			

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Air Quality (cont.)				
Impact 5.3-2 (cont.)	5. All traffic on dirt access roads shall be limited to a speed of 15 miles per hour or less. 6. During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the APCD in determining when winds are excessive. 7. Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads. 8. Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.			
Impact 5.3-4: Construction activities would result in emissions of NO_x that would be cumulatively considerable.	Implement Mitigation Measures 5.3-1 (Construction Equipment NO_x Reductions) and 5.3-2 (Fugitive Dust Mitigation Plan).	See Mitigation Measures 5.3-1 and 5.3-2.	See Mitigation Measures 5.3-1 and 5.3-2.	See Mitigation Measures 5.3-1 and 5.3-2.
Cumulative Air Quality Impact: Construction activities would result in emissions of NO_x that would be cumulatively considerable.	Implement Mitigation Measures 5.3-1 (Construction Equipment NO_x Reductions) and 5.3-2 (Fugitive Dust Mitigation Plan).	See Mitigation Measures 5.3-1 and 5.3-2.	See Mitigation Measures 5.3-1 and 5.3-2.	See Mitigation Measures 5.3-1 and 5.3-2.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources				
Biological Resources: General	**APM BIO-1: General.** • Where wood subtransmission poles have been replaced with LWS poles during past construction activities, the previously-installed poles would be retrofitted to be avian-safe with newly available equipment and consistent with the *Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006* (Avian Power Line Interaction Committee, 2006). • During future construction activities, newly-installed LWS poles would be designed to be avian-safe with newly available equipment and consistent with the *Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006* (Avian Power Line Interaction Committee, 2006). • Clearance surveys, including avian species, will be conducted no more than 30 days prior to the start of construction in a particular area to identify potential plant and animal species that could be present during construction activities. Clearance surveys will be conducted by a qualified botanist and wildlife biologist and will be limited to areas directly impacted by construction activities. • A qualified biologist will be present during clearing and restoration activities to ensure that native habitat (coastal sage scrub) removal will be minimized. • Restoration activities in disturbed areas of native habitat (coastal sage scrub) will continue to be implemented in accordance the CDFW SAA and HRMP requirements, as applicable. • Implement Worker Environmental Awareness Training (See [PEA] Section 3.9.7). • Surveys for protected trees will be conducted by a certified arborist to identify trees meeting regulatory protection standards. When applicable, the proper permit will be obtained for trimming and/or removal of protected trees.	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities, and during all phases of construction activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
Special Status Plants	**APM BIO-2: Special Status Plants.** • Focused surveys for Lyon's pentachaeta and Conejo dudleya to be conducted no more than 30 days prior to start of construction in areas with potentially suitable habitat.[4] • Areas supporting Lyon's pentachaeta will be flagged prior to project activities by a qualified biologist and avoided during construction. In addition, a biological monitor will be present during project activities occurring within the vicinity of these resources to ensure that no sensitive species will be impacted.[5] • Areas supporting Conejo dudleya will be flagged prior to project activities by a qualified biologist and avoided during construction. In addition, a biological monitor will be present during project activities occurring within the vicinity of these resources to ensure that no sensitive species will be impacted.[6] • When digging holes for pole replacements within Lyon's pentachaeta critical habitat the upper six (6) inches of topsoil will be salvaged/stockpiled within Lyon's pentachaeta critical habitat in order to maintain the native seed bank. The topsoil will be stored on a protective surface (such as a tarp), piled no more than three feet high, and was replaced (within two weeks) as the top layer when ground disturbing work was completed.[7] • Where applicable, disturbed areas within Lyon's pentachaeta habitat will continue to be restored in accordance with the CDFW SAA and HRMP requirements.[8]	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities, and during all phases of construction activities.

4 August 30, 2010 letter from SCE to Ms. Diane K. Noda, Field Supervisor, Ventura Fish and Wildlife Office in [PEA] Appendix F.
5 *Ibid*.
6 *Op cit.* 6
7 *Op cit.* 6
8 February 16, 2010 California Department of Fish and Wildlife Streambed Alteration Agreement for the Moorpark Newbury Park 66kV Line Area Notification #1600-2011 0325-R5 Revision 2; contained in [PEA] Appendix F.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
Special Status Birds	**APM BIO-3: Special Status Birds.**[9] • Focused protocol surveys to be conducted prior to construction for the coastal California gnatcatcher (Polioptila californica californica). • During the breeding season (February 15 through August 30), a protocol survey for the coastal California gnatcatcher will be conducted prior to construction by a wildlife biologist possessing a valid recovery permit from the USFWS for the coastal California gnatcatcher. • If project activities occur during the breeding season (February 15 through August 30), a 500-foot buffer will be established around coastal California gnatcatcher nest sites, and this area will be avoided until the young fledged or until the birds abandoned the nest. • No grading of habitat occupied by nesting coastal California gnatcatchers (including a 500-foot buffer area in all direction from the nest) will occur during the breeding season (February 15 through August 30). • Project activities that will occur within 500 feet of a mapped coastal California gnatcatcher territory will be monitored by a qualified biologist who possesses a valid recovery permit for the species.	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities, and during all phases of construction activities.
Nesting Bird Protection	**APM BIO-4: Nesting Bird Protection.** SCE will develop and implement a project-specific nesting bird management plan (the plan) addressing nesting birds in collaboration with the CDFW and USFWS as needed. The plan would be an adaptive management plan to be updated as needed improvements are identified or conditions in the field change. Conditions typically implemented in this plan would include: nest management and avoidance, field approach (survey methodology, reporting, and monitoring), and the Project avian biologist qualifications. The avian biologist would be	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities, and during all phases of construction activities.

9 *Op cit.* 6

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
Nesting Bird Protection **(cont.)**	responsible for oversight of the avian protection activities including the biological monitors. In order to minimize impacts to nesting birds (common or special status), ongoing preconstruction surveys and daily sweep surveys of active construction areas by a qualified biologist would focus on breeding behavior and a search for active nests, as defined by CDFW and USFWS, within 500 feet of the Project. At a minimum, the plan would include the following: • For vegetation clearing that needs to occur during the typical nesting bird season (February 1 to August 31; as early as January 1 for raptors) qualified biologists would conduct nesting bird surveys. If an active nest were located, the appropriate avoidance and minimization measures from the management plan would be implemented. If active nest removal is required, SCE would consult with CDFW and USFWS; • During the typical nesting bird season, SCE would conduct preconstruction clearance surveys no more than 14 days prior to construction and in accordance with the adaptive management plan, to determine the location of nesting birds and territories. Preconstruction sweeps would be conducted within 3 days before construction begins at a given project location; • Nest monitoring would be conducted by Project biological monitors with knowledge of bird behavior; • Nesting deterrents (e.g., mooring balls, netting, etc.) would be used for inactive nests at the direction of the Project avian biologist in consultation with CDFW and USFWS; • A Project avian biologist would determine the appropriate buffer area around active nest(s) and provisions for buffer exclusion areas (e.g., highways, public access roads, etc.) along with construction activity limits. The Project avian biologist would determine, evaluate, and modify buffers as appropriate based on species tolerance and behavior, the potential disruptiveness of construction activities, and surrounding conditions; and,			

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
***Nesting Bird Protection* (cont.)**	The Project biological monitor would ensure implementation of appropriate buffer areas around active nest(s) during project activities. The active nest site and applicable buffer would remain in place until nesting activity concluded. Nesting bird status reports would be submitted according to the management plan.			
Biological Resources Impacts	**APM WET-1: Worker Environmental Awareness Training.** Prior to the start of past construction activities, a Worker Environmental Awareness Plan (WEAP) was developed. A presentation was prepared by SCE and used to train site personnel prior to the commencement of work. A record of all trained personnel was kept. This process would be repeated prior to and during the future construction activities. The WEAP training included a list of phone numbers of SCE environmental specialist personnel associated with the Project (archaeologist, biologist, environmental compliance coordinator, and regional spill response coordinator), and covered the following topics: • Archaeological Resources Training - An Environmentally Sensitive Area (ESA) has been physically delineated and marked to protect an archaeological resource - All work and equipment staging, storing, and placement shall remain outside the ESA - The Project has implemented procedures to follow if unanticipated archaeological resources are discovered, including: ▪ If archaeological resources are discovered during construction activities, all work in the vicinity of the find shall halt ▪ The archaeological monitor shall be informed ▪ The archaeological monitor shall notify the project foreman and SCE archaeologist immediately	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities, and during all phases of construction activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
Biological Resources Impacts **(cont.)**	▪ Archaeological monitors have the authority to temporarily halt work in the area of archaeological discoveries until the resource has been evaluated by a qualified archaeologist ▪ Work in the area of the discovery shall not resume until written notification is received from the SCE archaeologist - The SCE archaeologist will provide an estimate of how long an excavation of the resource would take - The Project has established procedures to follow if human remains are encountered. If human remains are encountered during earth-disturbing activities, State Health and Safety Code Section 7050.5 states that there "shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered [has made the appropriate assessment and] the recommendations concerning the treatment and disposition of the human remains has been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code." • Biological Resources Training. Workers were informed of general and Project-specific biological impact reduction measures, including: - Keep vehicles on existing roads and pads - Avoid impacts to drainages - Minimize clearing of vegetation - Avoid trapping animals by covering trenches/holes at the end of each day - Workers informed of requirements and actions under Migratory Bird Treaty Act			

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
Biological Resources Impacts **(cont.)**	- Workers informed of protected plant and wildlife species that may be found in the Project Area, where they have been identified during past surveys, and protection measures that may be implemented • SWPPP Training - Background on the regulatory climate - Education on individual and corporate responsibilities under the Clean Water Act - Presentation of activities covered under the Construction General Permit, and requirements of the Construction General Permit - Develop and implement a SWPPP - Eliminate or control non-stormwater - Visual inspections - Identification of SWPPP requirements - Daily inspection checklist - Maps - BMPs - Presentation on spill prevention and control, and spill notification procedures - Identification of common stormwater violations - Education on how to identify problems and devise solutions - Instruction on the importance of maintaining the construction site. All trash must be removed from the job sites daily, and all construction debris shall be removed at the end of construction - Instructions to notify the foreman and regional spill response coordinator in case of a hazardous materials spill or leak from equipment, or upon the discovery of soil or groundwater contamination			

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
***Biological Resources Impacts* (cont.)**	- Instruction that noncompliance with any laws, rules, regulations, or mitigation measures could result in being barred from participating in any remaining construction activities associated with the Project			
Impact 5.4-1: Construction activities could result in adverse impacts to rare plants.	**Mitigation Measure 5.4-1a:** Areas of future ground disturbance shall be surveyed for rare plants, including Plummer's mariposa lily, white rabbit tobacco, and chaparral ragwort, in accordance with CDFW's 2009 *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities,* unless otherwise agreed to by CDFW. If no rare plants are encountered, no further mitigation is required. If rare plants are found, the applicant proposed measures related to special-status plants shall be implemented for any identified CRPR Rank 1 or Rank 2 species. **Mitigation Measure 5.4-1b:** To reduce the potential for introduction or spread of invasive weeds in sensitive habitats during ground-disturbing activities, SCE shall prepare and implement a Weed Control Plan. The Weed Control Plan shall address the following: 1) A pre-construction weed inventory to be conducted by surveying all areas subject to ground-disturbing activity, including, but not limited to, pole installation sites and construction areas, tower removal sites, pulling and tensioning sites, guard structures, and areas subject to grading for new or improved access and spur roads. 2) During construction of the Project, implement measures to control the introduction and spread of noxious weeds in the Project work area. These shall include: a. washing vehicles (including wheels, undercarriages, and bumpers) at existing construction yards, commercial car washes, or similar suitable sites prior to commencing work in off-road areas; b. washing tools such as chainsaws, hand clippers, pruners, etc., prior to use in off-road areas;	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance. Biological surveys will be conducted using CDFW's 2009 *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities.* A Weed Control Plan will be submitted to the CPUC for approval.	During all phases of construction activities. Prior to commencement of ground disturbance activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 5.4-1 (cont.)	c. ensuring that all seeds and erosion-control materials used in off-road areas are weed-free, and any imported gravel or fill material are certified weed free by the county Agriculture Commissioners' Offices before use; and d. during Proposed Project operation and maintenance activities, clearing invasive weeds from helicopter landing areas, assembly and laydown areas, spur and access roads, staging areas, and other weed-infested areas; and disposing of weeds in appropriate off-site locations.			
Impact 5.4-2: Construction activities could result in adverse impacts to special-status reptiles.	**Mitigation Measure 5.4-2:** Within areas that provide potentially suitable habitat for special-status reptiles, SCE and/or its contractors shall perform preconstruction surveys within 24 hours of initial ground disturbance to identify the potential presence of western pond turtle, coast horned lizard, silvery legless lizard, two-striped garter snake, and South Coast garter snake within work areas. If any of these species are identified during surveys of the immediate construction area footprint, individuals shall be relocated from work areas by an individual who is authorized by CDFW to undertake species relocation. A suitable relocation area shall be identified and confirmed in advance with CDFW prior to preconstruction surveys.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance.	Within 24 hours of initial ground disturbance activities.
Impact 5.4-5: Construction could impact native grassland and sage scrub vegetation communities.	**Mitigation Measure 5.4-5:** Revegetation of native habitat areas will follow the prescriptions identified in the 2012 revegetation plan prepared by Wildscape Restoration for the Proposed Project, included as PEA Appendix F5, *Habitat Restoration and Monitoring Plan.* The revegetation plan, which was subject to CDFW review and approval, proposes the use of native revegetation for temporary impacts created by the Proposed Project. Implementation of the plan in disturbed areas will ensure that the functions and values of the disturbed habitat are restored by protecting and restoring soil conditions, restoring topography and topsoil following construction, using local native plants, and controlling aggressive non-native plant species.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance.	During revegetation activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Cultural Resources				
Cultural and Paleontological Resources	**APM CUL-1: Cultural and Paleontological Resources.** A cultural resources survey of the Project area was conducted prior to past construction activities. Additionally, a number of physical protection and impact avoidance measures were implemented prior to, and during, past construction activities. These activities would also be implemented prior to, and during, future construction activities: • Physically isolate within an Environmentally Sensitive Area (ESA) one cultural resource discovered during previous surveys. The ESA is an area in which construction activities are prohibited, and from which construction workers are excluded. • Utilize an archaeological monitor on site during ground disturbing activity in the vicinity of identified archaeological resources. • Conduct a preconstruction meeting to orient construction crews to sensitive areas prior to any ground disturbing activity within the vicinity of identified archaeological resources. • Should cultural material that may yield sensitive information be uncovered during construction, then all work within a 15-meter radius of the discovery will be halted until the find is evaluated by a qualified archaeologist. In the case of unearthing human remains during excavation, no further disturbance occurs until the County Coroner makes the necessary findings as to origin and distribution, pursuant to Public Resources Code Section 5097.98. (No cultural material or human remains were uncovered during past construction activities.) • If construction is halted because of an archaeological discovery, no work begins within that area until written notification from a qualified archaeologist is given to the Project Manager or construction foreman.	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities, and during all phases of construction activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Cultural Resources (cont.)				
Unanticipated Cultural Discoveries	**APM CUL-2: Unanticipated Discoveries.** If previously unidentified cultural resources are discovered during construction, personnel would suspend work in the vicinity of the find. The resource would then be evaluated for listing in the California Register of Historical Resources (CRHR) by a qualified archaeologist, and, if the resource is determined to be eligible for listing in the CRHR, the resource would either be avoided or appropriate archaeological protective measures would be implemented. If human skeletal remains are uncovered during Project construction, SCE and/or its contractors shall immediately halt all work in the immediate area, contact the applicable County Coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. Per Health and Safety Code Section 7050.5, upon the discovery of human remains, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. If the applicable County Coroner determines that the remains are Native American, it is anticipated that the coroner would contact the Native American Heritage Commission in accordance with Health and Safety Code Section 7050.5(c) and Public Resources Code Section 5097.98 (as amended by AB 2641). In addition, SCE shall ensure that the immediate vicinity where the Native American human remains are located is not damaged or disturbed by further development activity until SCE has discussed and conferred, as prescribed in Public Resource Code Section 5097.98, with the most likely descendants regarding their recommendations.	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities, and during all phases of construction activities.
Cultural Resources Impacts	**Implement APM WET-1**: Worker Environmental Awareness Training.	See APM WET-1.	See APM WET-1.	See APM WET-1.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Cultural Resources (cont.)				
Paleontological Resources Protection	**APM CUL-3: Paleontological Resources Protection.** To protect paleontological resources, SCE would implement procedures including, but not limited to: preconstruction coordination; recommended monitoring methods; emergency discovery procedures; sampling and data recovery methods, if needed; museum storage coordination for any specimens and data recovered; and reporting requirements.	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities, and during all phases of construction activities.
Impact 5.5-1: Construction activities and operation could cause an adverse change in the significance of a historical resource [inclusive of archaeological resources] which is either listed or eligible for listing on the National Register of Historic Places, the California Register of Historical Resources, or a local register of historic resources	**Mitigation Measure 5.5-1a**: SCE and/or its contractors shall retain a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior, 2014), to carry out all mitigation measures related to archaeological resources. **Mitigation Measure 5.5-1b:** Prior to the commencement of construction activities and in coordination with the qualified archaeologist, the construction zone shall be narrowed or otherwise altered to avoid impacts to resource P-56-001797. In coordination with the qualified archaeologist, avoidance shall be ensured by the delineation of an Environmentally Sensitive Area around the site. Protective fencing or other markers shall be erected around the Environmentally Sensitive Area prior to any ground disturbing activities; however, the Environmentally Sensitive Area shall not be identified specifically as an archaeological site, in order to protect sensitive information and to discourage unauthorized disturbance or collection of artifacts. If avoidance of site P-56-001797 is demonstrated to be infeasible, prior to the issuance of any grading or building permits, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of the resource to be impacted by construction activities. Treatment may consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; sample excavation; surface artifact collection; site	SCE and its contractors to implement measure as defined.	SCE to submit resume of qualified archaeologist to CPUC. CPUC mitigation monitor to inspect compliance. Submit Cultural Resources Treatment Plan shall be submitted to the CPUC for approval.	Prior to commencement of construction activities. During all phases of construction activities. Prior to the commencement of construction.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Cultural Resources (cont.)				
Impact 5.5-1 (cont.)	documentation; and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the CPUC prior to the commencement of construction activities, and shall also be submitted to the South Central Coastal Information Center. Prior to the commencement of the operation and maintenance phase, the qualified archaeologist, in coordination with SCE, shall develop a long-term cultural resources management plan for archaeological site P-56-001797 in order to minimize future impacts during project operation and maintenance. **Mitigation Measure 5.5-1c:** Prior to commencement of construction activities, an archaeological monitor shall be retained by SCE and/or its contractors to monitor all ground-disturbing activities, including grading, excavation, vegetation clearance and grubbing, within 50 feet of archaeological site P-56-001797. The monitor shall be, or shall work under the supervision of, a qualified archaeologist. In the event that cultural resources are unearthed during ground-disturbing activities, the archaeological monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the find so that the find can be evaluated. Evaluation of resources shall follow the procedures set forth in Mitigation Measure 5.5-1d. **Mitigation Measure 5.5-1d:** If archaeological resources are encountered during construction, SCE and/or its contractors shall cease all activity within 100 feet of the find until the find can be evaluated by a qualified archaeologist. Per California Environmental Quality Act Guidelines Section 15126.4(b)(3), project redesign and preservation in place shall be the preferred means to		SCE shall develop a long-term cultural resources management plan for archaeological site P-56-001797. Archaeological monitor shall be retained by SCE and/or its contractors to monitor all ground-disturbing activities, including grading, excavation, vegetation clearance and grubbing, within 50 feet of archaeological site P-56-001797. Qualified archaeologist shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources (if encountered).	Prior to the commencement of the operation and maintenance phase. Prior to commencement of construction activities. During all construction activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Cultural Resources (cont.)				
Impact 5.5-1 (cont.)	avoid impacts to significant historical resources. Consistent with California Environmental Quality Act Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures in consultation with the CPUC, which may include data recovery or other appropriate measures. The qualified archaeologist shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. Archaeological materials recovered during any investigation shall be curated at an accredited curational facility. Work may proceed on other parts of the alignment while treatment is being carried out. The qualified archaeologist shall prepare a report documenting evaluation and/or additional treatment of the resource, which shall be submitted to the CPUC and South Central Coastal Information Center.			
Impact 5.5-2: Construction activities could adversely impact a unique archaeological resource.	Implement Mitigation Measures 5.5-1c and 5.5-1d.	See Mitigation Measures 5.5-1c and 5.5-1d.	See Mitigation Measures 5.5-1c and 5.5-1d.	See Mitigation Measures 5.5-1c and 5.5-1d.
Impact 5.5-3: Excavation could directly or indirectly destroy a unique paleontological resource.	**Mitigation Measure 5.5-3:** SCE will hire a qualified paleontologist, as defined by Society of Vertebrate Paleontology guidelines, to monitor excavation activities located in Quaternary alluvium. If the monitor or construction crews discover fossils or fossil-like material during excavation and earth-moving operations, all earthwork and other types of ground disturbance within 50 feet of the find shall stop immediately until the qualified paleontologist can assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the qualified paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the fossil. The paleontologist may also propose modifications to the stop-work radius based on the nature of the find, site geology, and activities occurring on the site. If treatment and salvage is required, recommendations will be consistent with Society of Vertebrate Paleontology guidelines (SVP, 1995) and currently accepted scientific	SCE and its contractors to implement measure as defined.	SCE to submit resume of paleontologist and copy of paleontological assessment to CPUC. CPUC mitigation monitor to inspect compliance.	Prior to commencement of and during construction activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Cultural Resources (cont.)				
Impact 5.5-3 (cont.)	practice. If required, treatment for fossil remains may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection, and may also include preparation of a report describing the finds. SCE and/or its contractor will be responsible for ensuring that treatment is implemented. If no report is required, SCE and/or its contractor will nonetheless ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means.			
Energy Conservation				
No mitigation required.				
Geology and Soils				
Geotechnical Design Considerations	**APM GEO-1: Geotechnical Design Considerations.** A geotechnical data report was prepared for the Project prior to the beginning of construction. The investigation included a total of fourteen (14) soil and rock core borings to collect samples for laboratory testing and analyses and to evaluate the subsurface soil and bedrock conditions. The results of the investigation were utilized to identify the geologic setting and engineering properties of soil and bedrock underlying the ROW, as well as to provide recommendations for the design of foundations for the subtransmission line structures. A geotechnical investigation for the installation of TSPs at the Newbury Substation property would be performed prior to future construction activities at this location. Based on the findings of the past and future geotechnical analyses, SCE did and would design Project components to minimize the potential for impacts from landslides, lateral spreading, subsidence, liquefaction, or collapse. Measures that have been, or may be, used to minimize impacts could include, but are not limited to avoidance of highly unstable areas and construction of pile foundations. Additionally, subtransmission poles are designed consistent with CPUC General Order 95, *Rules for Overhead Line Construction*.	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities, and during all phases of construction activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Greenhouse Gas Emissions				
No mitigation required.				
Hazards and Hazardous Materials				
Hazardous Materials Impacts	**Implement APM WET-1**: Worker Environmental Awareness Training.	See APM WET-1.	See APM WET-1.	See APM WET-1.
Impact 5.9-1: Construction would require the use of hazardous materials that could pose a potential hazard to the public or the environment if improperly used or inadvertently released.	**Mitigation Measure 5.9-1a:** SCE and/or its contractors shall implement construction best management practices including but not limited to the following: • Follow manufacturer's recommendations on use, storage, and disposal of chemical products used in construction; • Avoid overtopping construction equipment fuel gas tanks; • Use tarps and adsorbent pads under vehicles when refueling to contain and capture any spilled fuel; • During routine maintenance of construction equipment, properly contain and remove grease and oils; and Properly dispose of discarded containers of fuels and other chemicals. **Mitigation Measure 5.9-1b:** SCE shall prepare a Hazardous Substance Control and Emergency Response Plan (Plan) and implement it during construction to ensure compliance with all applicable federal, state, and local laws and guidelines regarding the handling of hazardous materials. The Plan shall prescribe hazardous material handling procedures to reduce the potential for a spill during construction, or exposure of the workers or public to hazardous materials. The Plan shall also include a discussion of appropriate response actions in the event that hazardous materials are released or encountered during excavation activities. The Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance. SCE to submit the following plans to the CPUC for approval: Hazardous Substance Control and Emergency Response Plan (Plan); Health and Safety Plan; Workers Environmental Awareness Plan.	During all construction activities. Prior to commencement of construction activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Hazards and Hazardous Materials (cont.)				
Impact 5.9-1 (cont.)	**Mitigation Measure 5.9-1c:** SCE shall prepare and implement a Health and Safety Plan to ensure the health and safety of construction workers and the public during construction. The plan shall include information on the appropriate personal protective equipment to be used during construction. **Mitigation Measure 5.9-1d:** SCE shall ensure that oil-absorbent material, tarps, and storage drums shall be used to contain and control any minor releases. Emergency spill supplies and equipment shall be kept at the project staging area and adjacent to all areas of work, and shall be clearly marked. Detailed information for responding to accidental spills and for handling any resulting hazardous materials shall be provided in the project's Hazardous Substance Control and Emergency Response Plan (see Mitigation Measure 5.9-1b), which shall be implemented during construction. **Mitigation Measure 5.9-1e:** SCE shall ensure that the Workers Environmental Awareness Plan includes training on site-specific physical conditions to improve hazard materials release prevention and include a review of the Health and Safety Plan and the Hazardous Substance Control and Emergency Response Plan. The CPUC mitigation monitor shall attend the first program. SCE shall submit documentation to the CPUC prior to the commencement of construction activities that each worker on the project has undergone this training program.			
Impact 5.9-3: Construction activities could release previously unidentified hazardous materials in the environment.	**Mitigation Measure 5.9-3:** SCE's Hazardous Substance Control and Emergency Response Plan (Mitigation Measure 5.9-1b) shall include provisions that would be implemented if any subsurface hazardous materials are encountered during construction. Provisions outlined in the plan shall include immediately stopping work in the contaminated area and contacting appropriate resource agencies, including the CPUC designated monitor, upon discovery of subsurface hazardous materials. The plan shall include the phone numbers of county and state agencies and primary, secondary, and final cleanup procedures. The Hazardous Substance Control and Emergency Response Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities.	SCE and its contractors to implement measure as defined.	SCE to submit Hazardous Substance Control and Emergency Response Plan to CPUC for review and approval. CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities. During all construction activities

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Hazards and Hazardous Materials (cont.)				
Impact 5.9-6: Construction-related activities could ignite dry vegetation and start a fire.	**Mitigation Measure 5.9-6:** SCE and/or its contractors shall prepare and implement a Health and Safety/Fire Safety Plan to ensure the health and safety of construction workers and the public. The Ventura County Fire Department (VCFD) shall be consulted during plan preparation and include health and safety/fire safety measures recommended by this agency. The plan shall list fire prevention procedures and specific emergency response and evacuation measures that would be required to be followed during emergency situations. The plan shall include, but not be limited to, the following: • SCE and/or its contractors shall have water tanks and/or water trucks sited/available in the Proposed Project area for fire protection. • All construction vehicles shall have fire suppression equipment. • All construction workers shall receive training on the proper use of fire-fighting equipment and procedures to be followed in the event of a fire. • As construction may occur simultaneously at several locations, each construction site shall be equipped with fire extinguishers and fire-fighting equipment sufficient to extinguish small fires. • Construction personnel shall be required to park vehicles away from dry vegetation. • Prior to construction, SCE shall contact and coordinate with the VCFD to determine the appropriate amounts of fire equipment to be carried on the vehicles and appropriate locations for the water tanks if water trucks are not used. SCE shall submit verification of its consultation with CalFire and the local fire departments to the CPUC. The plan shall be submitted to CPUC staff for approval prior to commencement of construction activities and shall be distributed to all construction crew members prior to construction of the Proposed Project	SCE and its contractors to implement measure as defined.	SCE to submit Health and Safety/Fire Safety Plan to CPUC for review and approval. CPUC mitigation monitor to inspect compliance.	Prior to construction activities. During all construction activities

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Hydrology and Water Quality				
Impact 5.10-1: Construction, operation, and maintenance activities could result in increased erosion and sedimentation and/or pollutant (e.g., fuels and lubricants) loading to surface waters, which could increase turbidity, suspended solids, settleable solids, or otherwise degrade water quality.	**Mitigation Measure 5.10-1:** For all improved or rehabilitated access roads that would be within 300 feet of an existing surface water channel (i.e., one that has a distinct bed and banks, including irrigation ditches where no berm/levee is currently in place) and traverse a ground slope greater than two percent, the following protective measures shall be adhered to and/or installed: • All access roads shall be out-sloped; • Cross-drains (road surface drainage, e.g., waterbars, rolling dips, or channel drains) shall be installed at intervals based upon the finished road slope: road slope 5 percent or less, cross-drain spacing shall be 150 feet; road slope 6 to 15 percent, cross-drain spacing shall be 100 feet; 16 to 20 percent, cross-drain spacing shall be 75 feet; and 21 to 25 percent, cross-drain spacing shall be 50 feet; and Energy dissipation features (e.g., rock rip-rap, rock-filled containers) shall be installed at all cross-drain outlets.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance.	During construction and rehabilitation activities.
Impact 5.10-2: Dewatering during construction activities could release previously contaminated groundwater to surface water bodies and/or increase sediment loading to local surface water channels through overland discharge and subsequent erosion, degrading water quality in receiving surface waters	**Mitigation Measure 5.10-2:** Regarding dewatering activities and discharges, the following measures shall be implemented as part of Proposed Project construction: • If degraded soil or groundwater is encountered during excavation (e.g., there is an obvious sheen, odor, or unnatural color to the soil or groundwater), SCE and/or its contractor shall excavate, segregate, test, and dispose of degraded soil or groundwater in accordance with state hazardous waste disposal requirements. • All dewatering activities shall, where feasible, discharge to the land surface in the vicinity of the particular installation or construction site. The discharges shall be contained, such that the water is allowed to infiltrate back into the soil, and eventually to the groundwater table, and the potential for inducing erosion and subsequent sediment delivery to nearby surface waterways is eliminated. Further, the holding tank or structure shall be protected from the	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance. SCE shall provide to the CPUC proof of compliance with LARWQCB plans and permits.	During dewatering activities. Prior to the commencement of construction activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Hydrology and Water Quality (cont.)				
Impact 5.10-2 (cont.)	introduction of pollutants including but not limited to oil or fuel contamination from nearby equipment. Concerning such activities, SCE shall apply and comply with the provisions of SWRCB Order 2003-0003-DWQ, including development and submittal of a discharge monitoring plan. • If discharging to a community sewer system is feasible or necessary, SCE shall discharge to a community sewer system that flows to a wastewater treatment plant. Prior to discharging, SCE shall inform the responsible organization or municipality and present them with a description of and plan for the anticipated discharge. SCE shall comply with any specific requirements that the responsible organization or municipality may have. If discharging to surface waters, including to storm drains, would be necessary, SCE shall obtain and comply with the provisions of the LARWQCB Dewatering General Permit. SCE shall perform a reasonable analysis using a representative sample(s) of the groundwater to be discharged; this shall include analyzing the sample(s) for the constituents listed in the LARWQCB Dewatering General Permit, including TDS and nitrate. Further, the sample(s) shall be compared to the screening criteria listed in the LARWQCB Dewatering General Permit and the Basin Plan, and it shall be demonstrated that the discharge would not exceed any of the applicable water quality criteria or objectives. If necessary, SCE shall develop and submit to the LARWQCB a treatment plan and design. SCE shall provide to the CPUC proof of compliance with LARWQCB plans and permits prior to the commencement of construction activities.			
Impact 5.10-3: Construction activities could impact local drainage patterns, or the course of a given stream, resulting in substantial on- or off-site erosion or sedimentation.	Implement Mitigation Measure 5.10-1.	See Mitigation Measure 5.10-1.	See Mitigation Measure 5.10-1.	See Mitigation Measure 5.10-1.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Land Use				
No mitigation required.				
Mineral Resources				
No mitigation required.				
Noise				
Excessive Noise	**APM NOI-1: Noise Reduction.** Noise-generating construction activities were, and would be, conducted generally only during daytime hours (7:00 a.m. to 7:00 p.m.), Monday through Saturday. Construction activities were, and would be, conducted or staggered to ensure that the noise generated during construction would not exceed significance thresholds or durations identified by the County of Ventura noise regulations set forth in the County's Construction Noise Threshold Criteria and Control Plan (2010).	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	During all phases of construction activities.
Impact 5.13-1: Construction activities would generate noise levels in unincorporated Ventura County that would exceed Ventura County construction noise threshold criteria.	**Mitigation Measure 5.13-1a:** SCE and/or its contractors shall develop a Construction Noise Reduction Plan. The Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities. The Plan shall include, but not be limited to, the following measures for daytime construction activities: • Distribute to the potentially affected community within 650 feet of the Stringing Site north-northeast of Hitch Boulevard and Ventavo Road, and the residence near the Helicopter Land Zone in unincorporated Ventura County, a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. All complaints shall be logged noting date, time, complainants' name, nature of complaint, and any corrective action taken. • All construction equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof, to meet relevant noise limitations. Maintain maximize physical separation, as far as practicable, between noise sources (construction equipment) and noise receptors. Separation may be	SCE and its contractors to implement measures as defined.	SCE to submit Construction Noise Reduction Plan to CPUC for review and approval. CPUC mitigation monitor to monitor compliance. SCE to submit a Nighttime Noise and Nuisance Reduction Strategy plan to CPUC (if necessary).	Prior to commencement of construction activities. During all phases of construction activities. Prior to the commencement of construction activities

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Noise (cont.)				
Impact 5.13-1 (cont.)	achieved by providing enclosures for stationary items of equipment and noise barriers around particularly noisy areas at the construction sites, and by locating stationary equipment to minimize noise impacts on the community. Use construction noise barriers such as paneled noise shields, barriers, or enclosures adjacent to or around noisy equipment associated with conductor stringing north-northeast of Hitch Boulevard and Ventavo Road. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. **Mitigation Measure 5.13-1b:** SCE and/or its contractors shall develop a Nighttime Noise and Nuisance Reduction Strategy plan in the event that nighttime construction activity is determined to be necessary within 1,000 feet of sensitive receptors. The plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities. The strategy shall include a set of site-specific noise attenuation measures that apply state-of-the-art noise reduction technology to ensure that nighttime construction noise levels and associated nuisances are reduced to the extent feasible. The attenuation measures may include, but not be limited to, the control strategies and methods for implementation that are listed below. If any of the following strategies are determined by SCE to not be feasible, an explanation as to why the specific strategy is not feasible shall be included in the plan. • Plan construction activities to minimize the amount of nighttime construction. • Offer temporary relocation of residents within 200 feet of nighttime construction activities. • Temporary noise barriers, such as shields and blankets, shall be installed immediately adjacent to all nighttime stationary noise sources (e.g., auger rigs, generators, compressors, etc.).			

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Noise (cont.)				
Impact 5.13-1 (cont.)	• Install temporary noise barriers that block the line of sight between nighttime activities and the closest residences within 1,000 feet. The notification requirements identified in Mitigation Measure 5.13-1a shall be extended to include residences within 1,000 feet of pending nighttime construction activities.			
Impact 5.13-3: Construction-related nighttime noise levels would substantially increase ambient noise levels in the cities of Moorpark and Thousand Oaks.	Implement Mitigation Measure 5.13-1b.	See Mitigation Measure 5.13-1b.	See Mitigation Measure 5.13-1b.	See Mitigation Measure 5.13-1b.
Population and Housing				
No mitigation required.				
Public Services				
No mitigation required.				
Recreation				
No mitigation required.				
Transportation and Traffic				
Traffic Impacts	**APM TRA-1: Traffic Control.** Construction activities completed within public street ROWs may require the use of a traffic control service, and lane closures conducted in accordance with local ordinances and city permit conditions. Traffic control measures used are consistent with those published in the California Joint Utility Traffic Control Manual (California Inter-Utility Coordinating Committee, 2010) or local jurisdictional requirements. As discussed in Section 4.16, during the past activities, traffic control measures were not needed due to the location and type of work conducted. During future construction activities, SCE would implement.	SCE and its contractors to implement measures as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities, and during all phases of construction activities.

TABLE 10-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE MOORPARK-NEWBURY 66 kV SUBTRANSMISSION LINE PROJECT

Environmental Impact	Applicant Proposed Measures and Mitigation Measures Identified in the EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Transportation and Traffic (cont.)				
Traffic Impacts **(cont.)**	recommendations contained in the CJUTCM, including consulting and coordinating with local jurisdictions, to ensure the safe and efficient transit of vehicles, bicyclists, and pedestrians through laydown/work areas			
Impact 5.17-6: Alternative modes of transportation (public transit, bicycle or pedestrian) could be adversely affected	Implement Mitigation Measures 5.1-2a and 5.1-52b.	See Mitigation Measures 5.1-2a and 5.1-52b.	See Mitigation Measures 5.1-2a and 5.1-52b.	See Mitigation Measures 5.1-2a and 5.1-52b.
Utilities and Service Systems				
No mitigation required.				