CALIFORNIA PUBLIC UTILITIES COMMISSION

LS POWER GRID CALIFORNIA's POWER SANTA CLARA VALLEY PROJECT

Draft Environmental Impact Report

July 2025

A.24-04-017

State Clearinghouse No. 2024090200

Prepared for:
California Public Utilities Commission

Prepared by:
Environmental Science Associates

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ESA

TABLE OF CONTENTS

Power Santa Clara Valley Project (A.24-04-017) Draft EIR

Page

Acronyms and Other Abbreviations ..... **ix**

Executive Summary **ES-1**
ES.1 Introduction ES-1
ES.2 Purpose and Use of the Draft EIR ES-2
ES.3 Project Objectives ES-3
ES.4 Permits and Approvals ES-3
ES.5 Overview of Project Impacts ES-3
ES.6 Overview of Alternatives to the Project ES-28
ES.7 Environmentally Superior Alternative ES-29
ES.8 Areas of Controversy ES-31
ES.9 Issues to be Resolved ES-31
ES.10 References ES-32

Chapter 1. Introduction **1-1**
1.1 Purpose of This Document 1-1
1.2 Project Overview 1-1
1.3 Proposed Project Purpose and Objectives 1-2
1.4 Agency Use of This Document 1-5
1.5 Public Review and Comment 1-8
1.6 Reader's Guide to This EIR 1-10

Chapter 2. Project Description **2-1**
2.1 Introduction 2-1
2.2 Project Objectives 2-2
2.3 Project Location 2-3
2.4 Existing System 2-6
2.5 Project Overview 2-9
2.6 Project Components 2-17
2.7 Landownership, Rights-of-Way, and Easements 2-32
2.8 Construction 2-34
2.9 Construction Workforce, Equipment, Traffic, and Schedule 2-70
2.10 Post-construction 2-85
2.11 Operation and Maintenance 2-87
2.12 Decommissioning 2-90
2.13 Electric and Magnetic Fields 2-91
2.14 Anticipated Permits and Approvals 2-91
2.15 Applicant-Proposed Measures and Best Management Practices 2-94
2.16 References 2-115

Page

Chapter 3. Environmental Analysis 3-1
3.0 Introduction to Environmental Analysis 3-1
3.1 Aesthetics 3.1-1
3.2 Agriculture and Forestry Resources 3.2-1
3.3 Air Quality 3.3-1
3.4 Biological Resources 3.4-1
3.5 Cultural Resources 3.5-1
3.6 Energy 3.6-1
3.7 Geology, Soils, and Paleontological Resources 3.7-1
3.8 Greenhouse Gas Emissions 3.8-1
3.9 Hazards and Hazardous Materials 3.9-1
3.10 Hydrology and Water Quality 3.10-1
3.11 Land Use and Planning 3.11-1
3.12 Mineral Resources 3.12-1
3.13 Noise and Vibration 3.13-1
3.14 Population and Housing 3.14-1
3.15 Public Services 3.15-1
3.16 Recreation 3.16-1
3.17 Transportation 3.17-1
3.18 Tribal Cultural Resources 3.18-1
3.19 Utilities and Service Systems 3.19-1
3.20 Wildfire 3.20-1

Chapter 4. Alternatives 4-1
4.1 Introduction to Alternatives 4-1
4.2 CEQA Context for the Consideration of Alternatives 4-1
4.3 Alternatives Development and Screening Process 4-2
4.4 Project Alternatives Considered 4-4
4.5 Alternatives Rejected from Detailed Review 4-5
4.6 Alternatives Evaluated in Detail 4-21
4.7 Comparison Methodology 4-31
4.8 Comparison of Alternatives 4-31
4.9 Environmentally Superior Alternative 4-32
4.10 References 4-33

Chapter 5. Other CEQA Considerations 5-1
5.1 Introduction 5-1
5.2 Significant Unavoidable Environmental Effects 5-1
5.3 Significant Irreversible Changes 5-2
5.4 Growth-Inducing Effects 5-3
5.5 Environmental Justice 5-4
5.6 References 5-10

Chapter 6. Report Preparers 6-1
6.1 Report Authors 6-1

Page

Figures

Figure 1-1 Project Location 1-3
Figure 2-1 Project Location 2-4
Figure 2-2 Transmission System of Power Santa Clara Valley Project 2-8
Figure 2-3a Project Transmission Alignment 2-10
Figure 2-3b Project Transmission Alignment 2-11
Figure 2-3c Project Transmission Alignment 2-12
Figure 2-3d Project Transmission Alignment 2-13
Figure 2-4a LSPGC Scope of Work 2-14
Figure 2-4b PG&E Scope of Work - San Jose B 2-15
Figure 2-4c PG&E Scope of Work - Metcalf 2-16
Figure 2-5 Skyline HVDC Terminal 2-18
Figure 2-6 Grove HVDC Terminal 2-19
Figure 2-7 HVDC Terminal Site Profile Drawings 2-21
Figure 2-8 Typical 320 kV DC Termination/Riser Structures 2-24
Figure 2-9 Typical 500 kV AC Termination/Riser Structures 2-26
Figure 2-10a Project Disturbance Areas 2-36
Figure 2-10b Project Disturbance Areas 2-37
Figure 2-10c Project Disturbance Areas 2-38
Figure 2-10d Project Disturbance Areas 2-39
Figure 2-11 Typical Duct Bank Configurations 2-51
Figure 2-12 Typical Splice Vault Diagrams 2-52
Figure 2-13 Typical Underground Stringing Operations 2-53
Figure 2-14 Typical 320 kV DC Horizontal Bore Diagrams 2-57
Figure 2-15 Typical Horizontal Directional Drilling Diagram 2-58
Figure 3.0-1a Cumulative Projects 3-7
Figure 3.0-1b Cumulative Projects 3-8
Figure 3.1-1 Location of Representative Viewpoints and Key Observation Points near the Grove Terminal 3.1-8
Figure 3.1-2 Location of Representative Viewpoints and Key Observation Points near the Grove Terminal 3.1-9
Figure 3.1-3A Representative Viewpoint 1 - Looking Southeast 3.1-11
Figure 3.1-3B Representative Viewpoint 2 - Looking East 3.1-13
Figure 3.1-3C Representative Viewpoint 3 - Looking Southeast 3.1-14
Figure 3.1-3D Representative Viewpoint 4 - Looking Southwest 3.1-15
Figure 3.1-3E Representative Viewpoint 5 - Looking Northeast 3.1-16
Figure 3.1-3F Representative Viewpoint 6 - Looking South 3.1-17
Figure 3.1-3G Representative Viewpoint 7 - Looking East 3.1-18
Figure 3.1-3H Representative Viewpoint 8 - Looking South 3.1-19
Figure 3.1-3I Representative Viewpoint 9 - Looking Southwest 3.1-21
Figure 3.1-3J Representative Viewpoint 10 - Looking East 3.1-22
Figure 3.1-3K Representative Viewpoint 10 - Looking West 3.1-23
Figure 3.1-4 Existing View and Visual Simulation from KOP 1 ..... 3.1-24
Figure 3.1-5 Existing View and Visual Simulation from KOP 2 ..... 3.1-25
Figure 3.1-6 Existing View and Visual Simulation from KOP 3 ..... 3.1-26
Figure 3.1-7 Existing View and Visual Simulation from KOP 4 ..... 3.1-28
Figure 3.2-1a Farmland Mapping and Monitoring Program Important Farmland 3.2-3
Figure 3.2-1b Farmland Mapping and Monitoring Program Important Farmland 3.2-4
Figure 3.2-2a Agricultural Zoning 3.2-5
Figure 3.2-2b Agricultural Zoning 3.2-6
Figure 3.4-1a Vegetation Communities in the Vicinity of the Project Area 3.4-3
Figure 3.4-1b Vegetation Communities in the Vicinity of the Project Area 3.4-4

Page

Figures (continued)

Figure 3.4-1c Vegetation Communities in the Vicinity of the Project Area 3.4-5
Figure 3.4-1d Vegetation Communities in the Vicinity of the Project Area 3.4-6
Figure 3.4-1e Vegetation Communities in the Vicinity of the Project Area 3.4-7
Figure 3.4-2a Aquatic Resources in the Vicinity of the Project Area 3.4-10
Figure 3.4-2b Aquatic Resources in the Vicinity of the Project Area 3.4-11
Figure 3.4-3 CNDDB Occurrences within 5 Miles of the Proposed Project 3.4-13
Figure 3.7-1 Active Faults and Geologic Units 3.7-3
Figure 3.7-2a Mapped Soil Units in the Project Area 3.7-9
Figure 3.7-2b Mapped Soil Units in the Project Area 3.7-10
Figure 3.7-2c Mapped Soil Units in the Project Area 3.7-11
Figure 3.7-2d Mapped Soil Units in the Project Area 3.7-12
Figure 3.9-1 Open Hazardous Materials Clean-Up Sites in the Project Vicinity 3.9-3
Figure 3.10-1a Surface Waters and Flood Zones in the Vicinity of the Project Area ... 3.10-2
Figure 3.10-1b Surface Waters and Flood Zones in the Vicinity of the Project Area ... 3.10-3
Figure 3.10-1c Surface Waters and Flood Zones in the Vicinity of the Project Area ... 3.10-4
Figures 3.11-1a General Plan Land Use Designations 3.11-2
Figures 3.11-1b General Plan Land Use Designations 3.11-3
Figures 3.11-1c General Plan Land Use Designations 3.11-4
Figures 3.11-1d General Plan Land Use Designations 3.11-5
Figures 3.11-1e General Plan Land Use Designations 3.11-6
Figures 3.11-2a Zoning Designations 3.11-7
Figures 3.11-2b Zoning Designations 3.11-8
Figures 3.11-2c Zoning Designations 3.11-9
Figures 3.11-2d Zoning Designations 3.11-10
Figures 3.11-2e Zoning Designations 3.11-11
Figure 3.11-3 Land Management 3.11-12
Figure 3.12-1 Mineral Resource Zones 3.12-3
Figure 3.13-1 Noise Monitoring Locations 3.13-7
Figure 3.13-2 Land Use Compatibility Guidelines for Community Noise in San José 3.13-12
Figure 3.14-1 Population and Housing 3.14-2
Figure 3.15-1 Public Services 3.15-2
Figure 3.16-1a Recreational Areas and Facilities 3.16-4
Figure 3.16-1b Recreational Areas and Facilities 3.16-5
Figure 3.19-1 Existing Transmission Lines along the Project Alignment 3.19-6
Figure 3.19-2 Existing Pipelines along the Project Alignment 3.19-7
Figure 3.20-1 Fire Threat Classifications 3.20-3
Figure 3.20-2 Wildland-Urban Interface Near the Project 3.20-5
Figure 4-1 Energy Storage Alternative 4-7
Figure 4-2 Grove Terminal Site Alternatives 4-9
Figure 4-3 Metcalf to Grove Transmission Line Alternatives 4-15
Figure 4-4a Grove Terminal Alternative 3 General Arrangement 4-23
Figure 4-4b Grove Terminal Alternative 3 Transmission Line Alignment 4-24
Figure 4-5 Downtown Alignment Alternatives 4-28

Page

Tables

Table ES-1 Anticipated Permits and Approvals ES-4
Table ES-2 Areas of No Impact ES-7
Table ES-3 Summary of Impacts and Mitigation Measures ES-8
Table ES-4 Comparison of Impacts ES-30
Table 1-1 Anticipated Permits and Approvals 1-6
Table 2-1 Proposed Transmission Line Lengths 2-22
Table 2-2 Proposed Duct Banks and Splice Vaults 2-23
Table 2-3 New Access Roads 2-35
Table 2-4 Proposed Staging Areas 2-40
Table 2-5 Summary of Work Area Disturbance 2-42
Table 2-6 Summary of Grading, Excavation, and Material Removal 2-47
Table 2-7 Construction Equipment and Workforce 2-71
Table 2-8 Project Construction Equipment and Their Uses 2-81
Table 2-9 Estimated Average Daily Construction Traffic 2-83
Table 2-10 Preliminary Construction Schedule 2-84
Table 2-11 Anticipated Permits and Approvals 2-92
Table 2-12 Permanent Land and Right-of-Way Requirements 2-94
Table 2-13 Applicant-Proposed Measures 2-96
Table 2-14 PG&E Best Management Practices and Field Protocols 2-107
Table 3.0-1 Cumulative Projects Within 2 Miles of the Project 3-9
Table 3.1-1 Scenic Resources 3.1-5
Table 3.1-2 Summary of Representative Viewpoints and KOPs 3.1-10
Table 3.3-1 Summary of Air Quality Monitoring Data (2021–2023)—San José Jackson Street 3.3-6
Table 3.3-2 Summary of Air Quality Monitoring Data (2021–2023)—San Martin 3.3-7
Table 3.3-3 State and Federal Ambient Air Quality Standards and Attainment Status for the San Francisco Bay Area Air Basin 3.3-9
Table 3.3-4 BAAQMD CEQA Air Quality Significance Thresholds 3.3-22
Table 3.3-5 Combined Expected Mitigated Project Construction Emissions (Pounds per Day) 3.3-29
Table 3.3-6 Combined Expected Project Operational Emissions (Pounds per Day) 3.3-30
Table 3.3-7 Maximum Mitigated Health Risks Associated with Construction Activities 3.3-35
Table 3.3-8 Skyline HVDC Terminal Mitigated Maximum Cumulative Health Risks 3.3-41
Table 3.3-9 Grove HVDC Terminal Mitigated Maximum Cumulative Health Risks 3.3-42
Table 3.4-1 Vegetation Communities in the Biological Resources Study Area 3.4-2
Table 3.4-2 Impacts by Vegetation Community 3.4-8
Table 3.5-1 Cultural Resources Identified in the Project Area 3.5-13
Table 3.6-1 Electric Power Mix Delivered to Retail Customers in 2023 ..... 3.6-2
Table 3.6-2 Project Construction Fuel Consumption 3.6-12
Table 3.7-1 Faults within 10 Miles of the Project 3.7-5
Table 3.7-2 Mapped Soil Units and Soil Properties 3.7-7
Table 3.8-1 Project Greenhouse Gas Emissions by Construction Year and Component 3.8-16
Table 3.8-2 Annual Greenhouse Gas Emissions 3.8-17
Table 3.9-1 Open Hazardous Materials Clean-Up Sites In the Project Areas' Vicinity 3.9-4
Table 3.9-2 Schools Within 2 Miles of the Project 3.9-6

Page

Tables (continued)

Table 3.9-3 Relevant Federal Laws and Regulations Related to Hazards and Hazardous Materials 3.9-7
Table 3.9-4 Relevant State Laws and Regulations Related to Hazards and Hazardous Materials 3.9-8
Table 3.10-1 Beneficial Uses and Impairment Status of Water Bodies in the Study Area 3.10-6
Table 3.11-1 Jurisdictions of the Project Sites and Alignments 3.11-16
Table 3.13-1 Existing Noise Levels near the Sites of the Proposed HVDC Terminals 3.13-6
Table 3.13-2 Existing Noise Levels along the Proposed Transmission Line Alignments 3.13-6
Table 3.13-3 Construction Vibration Damage Criteria 3.13-9
Table 3.13-4 OSHA-Permissible Occupational Noise Exposure Standards 3.13-10
Table 3.13-5 Outdoor Noise Limits 3.13-15
Table 3.13-6 Mobile Construction Equipment Noise Limits 3.13-16
Table 3.13-7 Stationary Construction Equipment Noise Limits 3.13-16
Table 3.13-8 Allowable Hours for Construction Noise in San José and Santa Clara County 3.13-21
Table 3.13-9 Typical Construction Equipment Noise Levels 3.13-23
Table 3.13-10 Maximum Construction Noise Levels at Sensitive Receptors 3.13-24
Table 3.13-11 Operational Noise Levels for HVDC Terminal Noise Sources 3.13-29
Table 3.13-12 Operational Noise Levels at the Closest Sensitive Receptors to the Project Terminal Sites 3.13-30
Table 3.13-13 Vibration Levels for Construction Equipment 3.13-32
Table 3.14-1 2024 Population Estimates in the Project Study Area 3.14-1
Table 3.14-2 Historic and Projected Population Growth in the Project Area from 2010–2035 ..... 3.14-3
Table 3.14-3 2024 Housing Data Estimates in the Project Study Area 3.14-4
Table 3.15-1 Fire Stations in the Project's Vicinity 3.15-3
Table 3.16-1 Recreational Areas and Facilities within 0.5 Mile of the Project 3.16-2
Table 3.17-1 Proposed Staging Areas Access Points 3.17-3
Table 3.17-2 Transit Facilities Along the Grove to Skyline 320 kV DC Transmission Line Alignment 3.17-5
Table 3.19-1 Project Area Projected Water Supply (Acre-Feet) 3.19-1
Table 3.19-2 Solid Waste Generation Disposal Sites 3.19-5
Table 4-1 Screening: HVAC Alternative 4-6
Table 4-2 Screening: Energy Storage Alternative 4-8
Table 4-3 Screening: Grove Terminal Alternative 1 4-11
Table 4-4 Screening: Grove Terminal Alternative 2 4-12
Table 4-5 Screening: Grove Terminal Alternative 4 4-13
Table 4-6 Screening: Metcalf to Grove Transmission Line Alignment Alternative 1 4-14
Table 4-7 Screening: Metcalf to Grove Transmission Line Alignment Alternative 2 4-17
Table 4-8 Screening: Metcalf to Grove Transmission Line Alignment Alternative 3 4-18
Table 4-9 Screening: Metcalf to Grove Transmission Line Alignment Alternative 4 4-19
Table 4-10 Screening: Metcalf to Grove Transmission Line Alignment Alternative 5 4-20
Table 4-11 Summary of Impacts of the Project and Alternatives 4-35

Appendices

A. Scoping Report
B. Air Quality, Greenhouse Gas, and Energy Calculations and Modeling
C. Special-Status Species with Potential to Occur in the Project Area
D. Paleontological Resources Technical Report
E. Noise Appendix
F. Preliminary Induction Study

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Acronyms and Other Abbreviations

°	degrees
°F	degrees Fahrenheit
2017 Clean Air Plan	*2017 Clean Air Plan: Spare the Air, Cool the Climate*
2017 Scoping Plan Update	2017 *Climate Change Scoping Plan Update*
2022 Scoping Plan	2022 *Scoping Plan for Achieving Carbon Neutrality*
AATCM	Asbestos Airborne Toxic Control Measure
AB	Assembly Bill
ABAG	Association of Bay Area Governments
AC	alternating current
AF	acre-feet
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Comprehensive Plan
APLIC	Avian Power Line Interaction Committee
APM	Applicant-proposed measure
APN	Assessor's Parcel Number
AQMD	Air Quality Management District
ATCM	airborne toxic control measure
BAAH	breaker-and-a-half
BAAQMD	Bay Area Air Quality Management District
BAAQMD CEQA Guidelines	*BAAQMD California Environmental Quality Act Air Quality Guidelines*
Bay Area	San Francisco Bay Area
Bay Area	San Francisco Bay Area Air Basin
Bay Area O&M HCP	San Francisco Bay Area Operations and Maintenance Habitat Conservation Plan
BCDC	San Francisco Bay Conservation and Development Commission
BMP	best management practice
C&D	construction and demolition
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
CAISO	California Independent System Operator

CalEEMod	California Emissions Estimator Model
CalGEM	California Geologic Energy Management Division
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historical Resources
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAP	climate action plan
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CHSC	California Health and Safety Code
City	City of San José
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
Construction General Permit	General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities
County	Santa Clara County
Covenant	Covenant and Environmental Restriction on Property
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Resources
CRMP	Cultural Resources Management Plan
CRPR	California Rare Plant Rank
CWA	Clean Water Act
CY	cubic yards
dB	decibels
dBA	A-weighted decibels
DC	direct current

DNL	day-night average noise level
DPM	diesel particulate matter
DPS	Distinct Population Segment
DTSC	California Department of Toxic Substances Control
EIR	environmental impact report
EMF	electric and magnetic fields
EPA	U.S. Environmental Protection Agency
ESA	Environmental Science Associates
FAR	Federal Aviation Regulations
FESA	Federal Endangered Species Act
FHSZ	fire hazard severity zone
FMMP	Farmland Mapping and Monitoring Program
FP	field protocol
FPPA	Farmland Protection Policy Act
FR	*Federal Register*
ft.	feet
GHG	greenhouse gas
GO	General Order
Greater Bay Area	Greater San Francisco Bay Area
Grove to Skyline transmission line	Grove to Skyline 320-kilovolt direct current underground transmission line
GWh	gigawatt-hours
GWMP	*Groundwater Management Plan for the Santa Clara and Llagas Subbasins*
GWP	global warming potential
HCP	habitat conservation plan
HDD	horizontal directional drilling
HFTD	High Fire Threat District
HVDC	high-voltage direct current
Hz	hertz
I-280	Interstate 280
in/sec	inches per second
iPaC	Information for Planning and Conservation
ITP	incidental take permit
KOP	key observation points
kV	kilovolt

kW	kilowatt
kWh	kilowatt-hours
lbs	pounds
LED	light-emitting diode
LRA	Local Responsibility Areas
LSPGC	LS Power Grid California
MBTA	Migratory Bird Treaty Act
MEIR	maximally exposed individual receptor
Metcalf to Grove transmission line	Metcalf to Grove 500-kilovolt alternating current underground transmission line
MM	Mitigation Measure
mpg	miles per gallon
mph	miles per hour
MRZ	Mineral Resource Zones
MTA	Metropolitan Transit Commission
$MTCO_2e$	metric tons of carbon dioxide equivalent
MW	megawatts
MWh	megawatt-hours
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NEC	National Electrical Code
NEHRP	National Earthquake Hazards Reduction Program
NERC	North American Electric Reliability Corporation
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
OA	operational area
O&M	operation and maintenance
PEA	Proponent’s Environmental Assessment

PG&E	Pacific Gas and Electric Company
PID	photoionization detector
PLSS	Public Lands Survey System
PM	particulate matter
$PM_{2.5}$	particulate matter less than or equal to 2.5 microns in diameter
PM_{10}	particulate matter less than or equal to 10 microns in diameter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppm	parts per million
PPV	peak particle velocity
PRC	California Public Resources Code
PRNS	City of San José's Parks, Recreation, & Neighborhood Services
Project	Power Santa Clara Valley Project
RHNA	Regional Housing Needs Allocation
ROG	reactive organic gases
ROW	right-of-way
RPS	Renewables Portfolio Standard
RWF	San José–Santa Clara Regional Wastewater Facility
RWQCB	regional water quality control board
San Francisco Bay RWQCB	San Francisco Bay Regional Water Quality Control Board
Santa Clara LAFCO	Santa Clara County Local Agency Formation Commission
SB	Senate Bill
SCADA	supervisory control and data acquisition
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SJCE	San Jose Clean Energy
SJFD	San José Fire Department
SJKF	San Joaquin Kit Fox
SJPD	San José Police Department
SJW	San Jose Water Company
Skyline to San Jose B transmission tie line	Skyline to San Jose B 230-kilovolt alternating current overhead transmission tie line
SLF	Sacred Lands File

SMP	site management plan
SO_2	sulfur dioxide
SOI	sphere of influence
SRA	State Responsibility Area
SR	State Route
STATCOM	static synchronous compensator
SVCE	Silicon Valley Clean Energy
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminant
TIA	Transportation Impact Analysis
TIA Guidelines	VTA's *Transportation Impact Analysis Guidelines*
TK	transitional kindergarten
TMDL	total maximum daily load
TMP	Trail Management Plan
U.S. 101	U.S. Highway 101
USA	Underground Service Alert
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UWMP	urban water management plan
VdB	vibration decibels
VHFHSZ	Very High Fire Hazard Severity Zones
VMT	vehicle miles traveled
VOC	volatile organic compound
VTA	Santa Clara Valley Transportation Authority
VTP	Valley Transportation Plan
WEAP	Worker Environmental Awareness Program
WUI	wildland urban interface

EXECUTIVE SUMMARY

ES.1 Introduction

LS Power Grid California, LLC (LSPGC), in its California Public Utilities Commission (CPUC) application (A.24-04-017) filed on April 29, 2024, requested a Certificate of Public Convenience and Necessity (CPCN) for construction and operation of the proposed Power Santa Clara Valley Project (Project) within the city of San José and unincorporated Santa Clara County. LSPGC's application for a CPCN included the Proponent's Environmental Assessment (PEA), which LSPGC prepared pursuant to Rule 2.4 of CPUC's Rules of Practice and Procedure.

On November 12, 2024, several months after LSPGC filed its CPCN application with the CPUC, the California Independent System Operator (CAISO) Board of Governors approved a modified version of the Project. On January 29, 2025, LSPGC filed a motion to amend the application based on the CAISO-approved changes. The CPUC's Administrative Law Judge approved the motion on February 19, 2025, and LSPGC filed an amended application on March 7, 2025. The following Project description reflects the CAISO-approved changes.

The Project includes components that would be constructed and operated by LSPGC. These components consist of two high-voltage direct current (HVDC) terminals, a transmission line connecting the HVDC terminals, a transmission line connecting one of the HVDC terminals to the existing Pacific Gas and Electric Company (PG&E) Metcalf Substation, and an overhead transmission tie line connecting the other terminal to the existing PG&E San Jose B Substation.

Connecting the HVDC terminals to the PG&E Metcalf and San Jose B substations would require PG&E to modify the existing PG&E Metcalf Substation and expand and upgrade PG&E's San Jose B Substation.

The Project is subject to the California Environmental Quality Act (CEQA) review. Pursuant to the requirements of CEQA, the CEQA Guidelines, and CPUC General Order (GO) 131-D[1], the CPUC prepared this environmental impact report (EIR) to evaluate potential environmental impacts of the Project and identify mitigation measures to reduce potentially significant impacts. Based on the analysis in the EIR and the substantial evidence supporting the analysis, it has been determined that all significant environmental impacts of the Project would be avoided or reduced

[1] LSPGC's application for a certificate of public convenience and necessity was initially filed and deemed complete in June 2024 when GO 131-D was in effect, therefore, LSPGC's portion of the Power Santa Clara Valley Project will be permitted under GO 131-D. All filings after January 30, 2025, are subject to GO 131-E requirements, therefore, PG&E's portion of the Project will be permitted under GO 131-E. Because LSPGC's application includes components within and adjacent to PG&E property, PG&E became a Party of the CPUC's Proceeding for LSPGC's CPCN application, following Rule 1.4 from the CPUC's Rules of Practice and Procedure.

to below the level of significance with the incorporation of feasible mitigation measures agreed to by LSPGC, with the exception of cultural resources and tribal cultural resources.

While there has been extensive ground disturbance within a large portion of the Project area, archaeological sensitivity assessments conducted for the Project demonstrate positive results of the Native American Heritage Commission Sacred Lands File search and the presence in and adjacent to the Project area of known pre-contact cultural resources, including human remains. These results confirm the extensive inhabitation and use of the Project area and vicinity. In other words, there are several previously documented pre-contact cultural resources within the vicinity of the Project area, a number of which are considered highly sensitive. As discussed in detail in Section 3.5, *Cultural Resources*, and Section 3.18, *Tribal Cultural Resources*, any impact of the Project on historical resources or human remains could be potentially significant. To reduce potential impacts on undocumented archaeological resources, LSPGC and PG&E would implement mitigation measures, which involve measures in the event of discovery of any newly identified archaeological resources during Project construction through monitoring and inadvertent discovery procedures. However, there are known significant archaeological resources that would be affected by the Project and such impacts cannot be mitigated to a less-than-significant level. Therefore, impacts on archaeological resources would be significant and unavoidable.

Based on this significant and unavoidable impact, the CPUC must come to a decision that "[s]pecifically identified expected benefits from the project outweigh the policy of reducing or avoiding significant environmental impacts of the project" (CEQA Guidelines Section 15043(b)). The CPUC must "state in writing the specific reasons to support its action based on the final EIR and/or other information in the record" and must set forth the reasons for its action finding that the adverse impacts of the Project are "acceptable" in light of the benefits that outweigh those effects (PRC 21081 (b); CEQA Guidelines Section 15093(a)). This Statement of Overriding Considerations must be considered and supported by substantial evidence in the whole of the record at the time of Project approval. This Statement of Overriding Considerations must be adopted in addition to the required findings relating to mitigation measures and alternatives (CEQA Guidelines Sections 15091(a); 15093(b)). With this Statement and written findings of those significant effects identified, adoption of the EIR would satisfy the requirements of CEQA.

ES.2 Purpose and Use of the Draft EIR

CEQA Guidelines Section 15124(d) requires that an EIR contains a statement briefly describing the intended uses of the EIR. This Draft EIR is an informational document that examines and discloses the potential impacts of the Project and alternatives so that decision-makers and the public can consider the potential environmental consequences of a decision on the requested CPCN. The CPUC will rely on this EIR, along with other information in the formal record, in deciding whether to approve, approve with modifications, or deny the request for a CPCN. Agencies that have trustee responsibilities or that may have permitting authority over the Project area identified in Section ES.4, *Permits and Approvals*. These other agencies also may rely on this document in deciding whether to approve permits or issue other approvals for the Project.

ES.3 Project Objectives

The following objectives for the Project have been identified by LSPGC:

- Meet CAISO's reliability-driven need by addressing multiple near-, mid-, and long-term reliability issues in the existing San José area 115 kV system.
- Meet the technical specifications set forth by CAISO for a voltage source converter HVDC link in the San José area located near or adjacent to the existing PG&E San Jose B Substation and Metcalf Substation. Adjacency to the existing PG&E San Jose B and Metcalf Substations would reduce the length of the interconnection transmission lines, thereby reducing right-of-way (ROW) requirements and the potential for significant environmental impacts.
- Improve and maintain the reliability of the transmission grid by providing dynamic reactive power support and increase deliverability of renewable power, by building and operating a facility that would help keep transmission voltages within specified parameters, reduce transmission losses, increase reactive margin for the system bus, increase transmission capacity, provide a higher transient stability limit, increase damping of minor disturbances, and provide greater voltage control and stability.
- Facilitate deliverability of energy from existing and proposed renewable generation projects to the Greater San Francisco Bay Area (Greater Bay Area) and corresponding progress toward achieving California's Renewables Standard Portfolio goals in a timely and cost-effective manner by California utilities.
- Comply with and assist CAISO in meeting applicable Reliability Standards and Criteria developed by North American Electric Reliability Corporation (NERC), Western Electricity Coordinating Council, and CAISO.
- Provide a suitable foundation for future grid upgrades expected to be needed to serve the long-term forecasted electricity load in the San José area, as identified by CAISO.

ES.4 Permits and Approvals

Permits and approvals that could be required to construct, operate and maintain the Project are listed in **Table ES-1**, *Anticipated Permits and Approvals.*

ES.5 Overview of Project Impacts

ES.5.1 Significant and Unavoidable Impacts

Section 15126.2(a) of the CEQA Guidelines requires that the EIR describe any significant impacts, including those that can be mitigated but not reduced to less-than-significant levels. As analyzed in Chapter 3, *Environmental Analysis,* the Project would result in significant unavoidable impacts on cultural resources and tribal cultural resources. These impacts would remain significant and unavoidable even with implementation of environmental measures and mitigation measures.

TABLE ES-1
ANTICIPATED PERMITS AND APPROVALS[1]

Agency	Permit/Approvals[2]	Permit Trigger	Application Process	Timing
City of San José	Traffic control plan	Partial closure and/or encroachment within City roads.	Submit traffic control plan to the City of San José for review and approval.	Before the start of construction requiring traffic control.
City of San José	Encroachment permit	Construction within City roads or ROWs.	Submit application to the City of San José for review and approval.	Before the start of construction within City roads or ROW.
City of San José	Administrative use permit	Standby/backup generator that does not exceed noise or air quality standards within the Downtown Zoning District.	Submit application to the City of San José for review and approval.	Before the start of construction.
City of San José	Grading permit (non-discretionary)	Grading for the terminal sites.	Submit application to the City of San José for review and approval.	Before the start of construction of the terminal sites.
Santa Clara County	Tree removal approval	Removal of any tree from the County's right-of-way.	Submit application to Santa Clara County for approval.	Before the start of construction within County ROW.
Santa Clara County	Encroachment permit	Work within County roads or ROW.	Submit application to Santa Clara County for review and approval.	Before the start of construction within County roads or ROW.
Santa Clara County	Traffic control plan	Closure or use of traffic control on County roads.	Submit traffic control plan to Santa Clara County for review and approval.	Before the start of construction requiring traffic control.
Santa Clara County	Grading permits (non-discretionary)	Grading for the Grove terminal site.	Submit application to Santa Clara County for review and approval.	Before the start of construction of the terminal sites.
Santa Clara Valley Water District	Encroachment permit	Work on or near Valley Water land, easement, or facility.	Submit application to Valley Water for review and approval.	Before the start of construction within or near Valley Water property.
California Department of Transportation	Encroachment permit	Construction under Caltrans roads or with Caltrans ROWs.	Submit application to Caltrans for review and approval.	Before the start of construction within or near Caltrans ROW.
California Department of Industrial Relations, Division of Occupational Safety and Health, Mining and Tunneling Unit	Classification of new underground project	Installation of new underground boring or pipejacking greater than 30 inches in diameter.	Submit notification and required information to the Mining and Tunneling Unit, District 1.	Before bidding for construction of the applicable underground feature.
California Department of Fish and Wildlife	Section 2081 incidental take permit or Section 2080.1 consistency determination	Potential take of species listed under the California Endangered Species Act.	Submit application to CDFW for review and approval.	Before the start of construction.
U.S. Fish and Wildlife Service	Section 7 or Section 10 incidental take permit	Potential take of federally listed species, in compliance with the federal Endangered Species Act.	Submit a biological assessment or HCP to USFWS for review and approval.	Before the start of construction.

TABLE ES-1
ANTICIPATED PERMITS AND APPROVALS[1]

Agency	Permit/Approvals[2]	Permit Trigger	Application Process	Timing
Federal Aviation Administration	Code of Federal Regulations Title 14, Part 77 Notification	Construction of overhead facilities potentially requiring aerial lighting or marking.	Submit notification (FAA Form 7460-1) to FAA.	Before the start of construction.
State Water Resources Control Board	Clean Water Act, National Pollutant Discharge Elimination System General Permit for Discharge of Construction Related Stormwater	Requirement for a SWPPP for stormwater discharges associated with construction activities that disturb more than 1 acre of land.	Prepare SWPPP and submit Notice of Intent with the State Water Board.	Before the start of construction.
Union Pacific Railroad	New Wireline Crossing Authorization	Installation of new underground transmission line under Union Pacific's existing railroad via horizontal bore.	Submit application to Union Pacific for review and approval.	Before the start of construction within or near Union Pacific ROW.
Santa Clara Valley Transportation Authority	Construction access permit and light rail restricted access permit	Installation of new underground transmission line under VTA's existing light rail system via horizontal bore.	Submit application to VTA for review and approval.	Before the start of construction within or near VTA ROW.

NOTES:

Caltrans = California Department of Transportation; CDFW = California Department of Fish and Wildlife; City = City of San José; CPCN = Certificate of Public Convenience and Necessity; CPUC = California Public Utilities Commission; FAA = Federal Aviation Administration; HCP = habitat conservation plan; PEA = Proponent's Environmental Assessment; ROW = right-of-way; SWPPP = Stormwater Pollution Prevention Plan; USFWS = U.S. Fish and Wildlife Service; Valley Water = Santa Clara Valley Water District; VTA = Santa Clara Valley Transportation Authority

1. Permit requirements in this table apply only to LSPGC and are separate from applicable permits for Pacific Gas and Electric Company (PG&E) upgrades and modifications.
2. Permits/approvals in this table are potentially required and do not necessarily represent a comprehensive list of all possible permits/approvals required for the Project. In addition, some permits in this table may not be ultimately required.

SOURCE: LSPGC 2025

ES.5.2 Significant Irreversible Environmental Changes

CEQA's requirement to analyze irretrievable commitments of resources applies only to: (1) the adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency; (2) a local agency formation commission's adoption of a resolution making determinations; and (3) projects that require the preparation of an environmental impact statement under the National Environmental Policy Act of 1969 (Public Resources Code Section 21100.1; CEQA Guidelines Section 15127). Such an analysis is not required by CEQA for this Project.

ES.5.3 Growth-Inducing Impacts

Section 15126.2(e) of the CEQA Guidelines requires a discussion of the ways in which a project "could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might,

for example, allow for more construction in service areas).” Project-caused population increases could tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects.

Growth inducement can be a result of new development that increases employment levels, removes barriers to development, or provides resources that lead to secondary growth. Throughout the Project’s 27-month construction period, there would be up to 250 construction workers on-site, but the average number of construction workers would be lower. In Santa Clara County, the labor force for construction personnel was 57,000 people as of December 2023 (EDD 2025). Additionally, the labor force for trade, transportation, and utilities was 121,700 people, for financial activities was 37,700, and for manufacturing was 175,500 people (EDD 2025). As of November 2024, the labor force for construction personnel in San Mateo County was 38,900 people (EDD 2024a). The labor force for trade, transportation, and utilities for that region was 136,400 people, for financial activities was 82,000, and for manufacturing was 33,800 people (EDD 2024a). In November 2024, the unemployment rates for Alameda, San Mateo, and Santa Clara counties were 4.7 percent, 3.5 percent, and 4.0 percent, respectively, which are lower than the state unemployment rate of 5.3 percent (EDD 2024b, 2024c).

It is expected that construction workers would commute to the Project sites(s) instead of relocating to the Greater Bay Area; however, even if all workers were to relocate to the Greater Bay Area, the existing available housing supply could accommodate them without requiring new construction. Santa Clara County has a vacancy rate of approximately 4.7 percent (CDOF 2024). Therefore, the Project is not expected to induce population growth, the housing and provision of services for which could cause significant adverse environmental impacts.

The Project could have an indirect impact on population growth if it would generate growth or a concentration of people beyond what is assumed in local and regional land use plans or projections made by regional planning authorities. Adding infrastructure to an area can result in the unplanned indirect growth of population and housing. With a more reliable California Independent System Operator-controlled grid, the Project could potentially result in regional growth that exceeds local and regional land use plan predictions. However, it is uncommon for an area to experience population growth simply as a result of a more reliable electrical grid. The Project is designed to increase reliability and accommodate existing and planned electrical load, rather than to induce unplanned growth.

ES.5.4 Summary of Project Impacts and Mitigation Measures

As analyzed in Chapter 3, the Project would cause no impact in the resource areas identified in **Table ES-2**, *Areas of No Impact.* However, the areas that would have impacts are shown in **Table ES-3**, *Summary of Impact and Mitigation Measures*, and delineate the mitigation measures that would lessen their environmental impacts.

TABLE ES-2
AREAS OF NO IMPACT

Resource Area	CEQA Guidelines Appendix G Environmental Checklist Consideration
Aesthetics	• The Project would have no impact related to a substantial adverse effect on a scenic vista. • The Project would not substantially damage scenic resources within a state scenic highway.
Agriculture and Forestry Resources	• The Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. • The Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]). • The Project would not result in the loss of forest land or conversion of forest land to non-forest use. • The Project would not 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.
Cultural Resources	• The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
Energy	• The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. • The Project would not add capacity for the purpose of serving a nonrenewable energy resource.
Geology, Soils, and Paleontological Resources	• The Project would not 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.
Land Use and Planning	• Project operations would not physically divide an established community, and there would be no impact from operation and maintenance. • The Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
Mineral Resources	• The Project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. • The Project would not result in the loss of availability of a locally important mineral resources recovery site delineated on a local general plan, specific plan, or other land use plan.
Population and Housing	• The Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.
Public Services	• The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection, police protection, schools, parks, or other public facilities.
Recreation	• The Project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.
Utilities and Service Systems	• The Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.
Wildfire	• Project operations would not substantially impair an adopted emergency response plan or emergency evacuation plan.

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
Aesthetics		
Impact 3.1-1: The Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality in the area.	No measure required.	LTS
Impact 3.1-2: The Project would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	**LSPGC Mitigation Measure 3.1-2: Minimize Fugitive Light from Temporary Sources Used for Construction** The use of outdoor lighting shall be minimized during construction, operation, and maintenance. Photocell and motion detection-controlled lighting shall be provided at a level sufficient to provide safe entry and exit to the Project work sites and to ensure the security of the sites. All lighting shall be selectively placed, shielded, and directed to minimize fugitive light. Portable lights shall be operated at the lowest feasible wattage and height. The number of nighttime lights used shall be limited to those necessary to accomplish the task completely and safely. All lighting near sensitive species habitat shall be directed away from these areas where feasible.	LSM
Agriculture and Forestry Resources		
Impact 3.2-1: The Project would convert Prime Farmland, as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural use.	**LSPGC Mitigation Measure 3.2-1: Conservation and Restoration of Farmland** LSPGC shall provide a financial donation or purchase an agricultural conservation easement to protect and restore farmland in Santa Clara County, subject to review and approval of the Santa Clara County Agricultural Commissioner and Santa Clara County Open Space Authority. The ratio of mitigation shall be equivalent to 1:1 as compensation for Project prime farmland removed from agricultural productivity. The conservation mitigation shall be paid to the Santa Clara Valley Open Space Authority or other appropriate agricultural land trust operating in Santa Clara County for the purposes of reclaiming, restoring, and/or conserving prime farmland in Santa Clara County.	LSM
Impact 3.2-1: The Project would involve other changes in the existing environment which could result in conversion of agricultural land to non-agricultural use.	**LSPGC Mitigation Measure 3.2-1: Conservation and Restoration of Farmland**	LSM
Air Quality		
Impact 3.3-1: The Project would conflict with or obstruct implementation of the applicable air quality plan.	**LSPGC Mitigation Measure 3.3-2a: Construction Fleet Minimum Requirements and Tracking – LSPGC Tier 4 Final Emissions Controls** LSPGC shall ensure that at least 75 percent of equipment horsepower hours related to off-road construction equipment include Tier 4 Final emissions controls for all construction locations except the Grove and Skyline HVDC terminals. LSPGC shall ensure that 100 percent of all off-road construction equipment used at the terminal sites is Tier 4 Final compliant. An initial listing that identifies each off-road unit's certified tier specification to be operated for the Project shall be submitted to the CPUC for review and approval before the start of construction activities. Construction activities shall not begin until the equipment listing has been submitted to and approved by the CPUC.	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
	As LSPGC requires new or replacement construction equipment on the Project, LSPGC shall document verification of the certified engine tier and provide such documentation to CPUC for approval before its use on Project sites. Before the start of construction, LSPGC shall develop an off-road construction equipment-use hours tracking tool and procedure. Construction activities shall not begin until the tracking tool and procedure have been submitted to and approved by the CPUC. The tracking tool shall be utilized by LSPGC to keep track of the certified engine tier and daily equipment use hours of all off-road diesel-powered equipment. If all off-road construction equipment is Tier 4 Final certified, the tracking tool is not required. The tracking tool shall be maintained by LSPGC, and tracking updates shall be submitted to the CPUC monthly to track the Project's compliance. The updated tracking tool shall be submitted to the CPUC no later than the 10th day of the following month. **PG&E Mitigation Measure 3.3-2b: Construction Fleet Minimum Requirements and Tracking – PG&E Tier 4 Final Emissions Controls** PG&E shall ensure that all off-road construction equipment used to complete the San José B Substation expansion, the Metcalf Substation modification, and any other work PG&E will complete under the Project includes Tier 4 Final emissions controls. An initial listing that identifies each off-road unit's certified tier specification to be operated for each substation and any other work to be completed under the direction of PG&E shall be submitted to the CPUC for review and approval before the start of construction activities. Construction activities shall not begin until the equipment listing has been submitted to and approved by the CPUC. As PG&E requires new or replacement construction equipment on the Project, PG&E shall document verification of the certified engine tier and provide such documentation to CPUC for approval before its use on Project sites. **LSPGC Mitigation Measure 3.3-2c: Use Best Management Practices for Construction-Related Fugitive Dust Emissions** LSPGC shall implement all of the following best management practices, which would reduce fugitive PM_{10} and $PM_{2.5}$ emissions: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. • All trucks and equipment, including their tires, shall be washed off prior to leaving the site.	

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
	• Unpaved roads providing access to sites located 100 feet or farther from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel. • Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours of receiving a complaint. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations. • Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities. • Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have a maximum of 50 percent air porosity. • Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and water appropriately until vegetation is established. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent. • Minimize the amount of excavated material or waste materials stored at the site. • Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days. **PG&E Mitigation Measure 3.3-2d: Use Best Management Practices for Construction-Related Fugitive Dust Emissions** PG&E shall implement all of the following best management practices, which would reduce fugitive PM_{10} and $PM_{2.5}$ emissions: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. • All trucks and equipment, including their tires, shall be washed off prior to leaving the site. • Unpaved roads providing access to sites located 100 feet or farther from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel. • Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours	

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
	of receiving a complaint. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations. • Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities. • Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have a maximum of 50 percent air porosity. • Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and water appropriately until vegetation is established. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent. • Minimize the amount of excavated material or waste materials stored at the site. • Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.	
Impact 3.3-2: The Project would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.	**LSPGC Mitigation Measure 3.3-2a: Construction Fleet Minimum Requirements and Tracking – LSPGC Tier 4 Final Emissions Controls** **PG&E Mitigation Measure 3.3-2b: Construction Fleet Minimum Requirements and Tracking – PG&E Tier 4 Final Emissions Controls** **LSPGC Mitigation Measure 3.3-2c: Use Best Management Practices for Construction-Related Fugitive Dust Emissions** **PG&E Mitigation Measure 3.3-2d: Use Best Management Practices for Construction-Related Fugitive Dust Emissions**	LSM
Impact 3.3-3: The Project would not expose sensitive receptors to substantial pollutant concentrations.	**LSPGC Mitigation Measure 3.3-2a: Construction Fleet Minimum Requirements and Tracking – LSPGC Tier 4 Final Emissions Controls** **PG&E Mitigation Measure 3.3-2b: Construction Fleet Minimum Requirements and Tracking – PG&E Tier 4 Final Emissions Controls** **LSPGC Mitigation Measure 3.3-2c: Use Best Management Practices for Construction-Related Fugitive Dust Emissions** **PG&E Mitigation Measure 3.3-2d: Use Best Management Practices for Construction-Related Fugitive Dust Emissions**	LSM
Impact 3.3-4: The Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
Biological Resources		
Impact 3.4-1: The Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	**LSPGC Mitigation Measure 3.4-1: Avoid Impacts to Rare Plants** Rare plant surveys conducted under APM BIO-2 shall be floristic in nature and shall be conducted by a qualified botanist according to procedures outlined in the CDFW publication *Protocols for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Communities* (CDFW 2018b). The survey(s) shall be conducted in early, mid-, or late spring, in conjunction with the blooming seasons of those rare plants with moderate potential to occur in the survey area. If no special-status plants are observed during appropriately timed surveys conducted by a qualified botanist, it shall be assumed that the construction activity will have no impact on special-status plants and no further action is required. If special-status plants are identified within the survey area, the individuals or populations shall be mapped and quantified and reported to the CNDDB, and the project manager shall be notified so that potential impacts on these known occurrences will be avoided or minimized. Coordination with CDFW and/or USFWS staff shall be conducted to establish appropriate avoidance and minimization measures if the species is federally or State listed. Avoidance and minimization measures may include: (1) No-disturbance buffers. The size of the buffer would typically be 25–50 feet but may be increased or decreased by the biologist depending on the plant species and surroundings. (2) Work windows for low-impact activities that are compatible with the dormant phase of a special-status plant life cycle but that may kill living plants or severely alter their ability to reproduce. (3) Silt fencing or construction fencing to prevent vehicles, equipment, and personnel from accessing the occupied habitat. (4) Erosion control BMPs such as straw wattles made of rice straw, erosion control blankets, or hydroseeding with a native plant seed mix to prevent sedimentation from upslope construction activities. (5) In consultation with and as authorized by CDFW or USFWS, collection and spreading of seeds or relocation of plants to appropriate locations by a qualified botanist. **LSPGC Mitigation Measure 3.4-2: Protection of Special-status Wildlife** To supplement the protective actions provided in the APMs and PG&E BMPs and FPs for special-status wildlife species, including, but not limited to, terrestrial mammals, reptiles and amphibians, and roosting bats, this measure includes specific criteria regarding preconstruction survey timing, buffer demarcation, and steps to follow in the event a special-status species is found. Preconstruction clearance surveys within suitable habitat for special-status species that are known to be present or have at least a moderate potential to occur shall be conducted by a qualified biologist within 7 days of the start of construction activities. Nesting bird surveys shall only be required between February 1 and August 31. If a special-status wildlife species or nesting birds are found, the qualified biologist shall clearly mark avoidance buffers for protection of biological resources using flagging or other high-visibility material. Avoidance buffers shall be 50 feet for songbirds and non-raptor nests and 500 feet for raptor nests and other large species; buffer sizes may be increased or decreased by the qualified biologist, depending on species and site location. USFWS and/or CDFW shall be notified in the event a federally listed or State-listed species is found.	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
	A qualified biologist shall be on-site to conduct daily pre-activity surveys and monitoring during all ground-disturbing and vegetation removal activities in suitable habitat for special-status species. The qualified biologist shall conduct daily clearance surveys of all equipment, vehicles, and stockpiled materials at the beginning of each day, and regularly throughout the workday. If a special-status species is observed in a work area, the qualified biologist shall clearly mark the area using flagging or other high-visibility material for avoidance for the duration of work in the vicinity. If avoidance is not possible, work activities shall cease until the species has left the area on its own or is relocated by a qualified biologist in accordance with the Santa Clara Valley HCP or a species-specific ITP, in coordination with USFWS and/or CDFW. If relocation of the special-status species is not allowed, an avoidance buffer shall be established at 25 feet to 250 feet, depending on the species and location, and as USFWS and/or CDFW recommends. Protective actions under the Santa Clara Valley HCP or species-specific ITP may include seasonal avoidance of sensitive habitat areas, monitoring requirements and reporting, and mitigation for permanent loss of habitat. **LSPGC Mitigation Measure 3.13-1a: Nighttime Construction Noise Plan** (see Noise below)	
Impact 3.4-2: The Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	**LSPGC Mitigation Measure 3.4-3: Compensatory Mitigation** Permanent loss of riparian acreage shall be mitigated in accordance with the specifications of applicable regulatory agency permits. These permits may include a U.S. Army Corps of Engineers Clean Water Act Section 404 permit, a Regional Water Quality Control Board Clean Water Act Section 401 permit, and/or a CDFW Section 1600 Lake and Streambed Alteration Agreement. Specific compensatory mitigation, if required, shall include replacement of like habitat on- or off-site, at a 1:1 ratio, or as otherwise specified by the applicable resource agency permit(s). **LSPGC Mitigation Measure 3.4-4: Habitat Restoration and Monitoring** Before construction, the Applicant shall obtain all required environmental permits, including Clean Water Act water quality certification for federal and State jurisdictional wetlands (Section 401), permits for federal jurisdictional wetlands (Section 404), and CDFW Lake and Streambed Alteration Agreement (Section 1600). The Applicant shall adhere to the conditions of each permit. At least 30 days before the completion of Project activities, the Applicant shall submit a restoration plan to CDFW for review and written approval. No restoration activities shall commence until the restoration plan has been approved by CDFW in writing. The plan shall detail compensation for permanent impacts on riparian and wetland habitat in the form of restoration or enhancement of habitat on-site, or off-site as close to the Project site as feasibly possible. The plan shall also describe the on-site restoration of temporary impacts on riparian and wetland habitat, as applicable, and shall include monitoring requirements and success criteria. The restoration plan shall be implemented within the same calendar year as the completion of Project activities unless otherwise approved in writing by CDFW. More than one plan may be necessary for restoration activities in different locations. Restoration and monitoring shall be guided by a qualified biologist experienced in wetland habitat restoration. Restoration shall include protocols for the replanting of native vegetation removed before or during construction, and for management and monitoring of the plants to ensure replanting success. The following measures shall apply to site restoration:	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
	• Areas affected by construction-related activity shall be replanted or reseeded with locally collected and grown native shrubs and herbaceous species suitable for riparian and wetland locations, under guidance from a qualified restoration biologist. • To ensure a successful revegetation effort in the temporarily disturbed areas, all planting areas shall be monitored and maintained annually by a qualified biologist as necessary for 5 years. At the end of the 5 years of monitoring, with at least 3 years without supplemental irrigation, successful restoration of each category of plantings (e.g., herbs, shrubs) will include at least 85 percent survival at the end of the minimum monitoring period and plantings shall attain 70 percent relative cover after 3 years and 75 percent relative cover after 5 years, unless otherwise approved in writing by CDFW. Survival and cover criteria shall both be required, unless the herbaceous or spreading plants cannot be differentiated by individual, in which case only cover success criteria would be required.	
Impact 3.4-3: The Project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	No measure required.	LTS
Impact 3.4-4: The Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	**LSPGC Mitigation Measure 3.4-2: Protection of Special-status Wildlife** **LSPGC Mitigation Measure 3.4-4: Habitat Restoration and Monitoring**	LSM
Impact 3.4-5: The Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	**LSPGC Mitigation Measure 3.4-5: Compliance with Local Tree Ordinances** All removal of street trees within the jurisdictional limits of the City of San José and Santa Clara County shall be coordinated with the responsible department in each jurisdiction (see Section 3.4.3) to obtain any necessary tree removal permits. LSPGC shall comply with all permit conditions, including tree replanting and monitoring to ensure successful replanting. LSPGC shall provide copies of the approved permits from the applicable jurisdictions before the start of construction.	LSM
Impact 3.4-6: The Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	**LSPGC Mitigation Measure 3.4-2: Protection of Special-status Wildlife**	LSM
Impact 3.4-7: The Project would create a substantial collision or electrocution risk for birds or bats.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
Cultural Resources		
Impact 3.5-1: The Project would cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	**LSPGC Mitigation Measure 3.5-1: Cultural Resources Management Plan (CRMP)** • The CPUC, LSPGC, consulting Native American representative(s), and a Secretary of the Interior–qualified archaeologist shall determine whether preservation in place of significant cultural resources is feasible. Consistent with CEQA Guidelines Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If the parties determine that preservation in place is not feasible, data recovery through archaeological investigations shall be completed. • LSPGC shall retain a Secretary of the Interior–qualified archaeologist, in consultation with consulting Native American representative(s), to prepare and implement a Cultural Resources Management Plan (CRMP). The CRMP shall include a treatment program to define the research themes and data requirements, define treatment locations, and determine whether cultural materials can address the questions associated with research themes. The Secretary of the Interior–qualified archaeologist, in consultation with consulting Native American representative(s), shall conduct a data recovery program as outlined in the CRMP. The CRMP will include how the data recovery program would preserve the significant information the resource is expected to contain. Treatment would consist of (but would not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim of targeting the recovery of important data contained in the portion of the significant resource to be affected by the Project. The CRMP shall include provisions for analysis of data in a regional context; reporting of results within a timely manner and subject to review and comments by the consulting Native American representative(s); disposition of resources acceptable to the consulting Native American representative(s) and in accordance with all applicable laws; and dissemination of final confidential reports to the Northwest Information Center of the California Historical Resources Information System. • The LSPGC CRMP will also include a monitoring plan. The monitoring plan will include specifically where monitoring will be completed and under what circumstances based on soil types, geology, distance to known sites, and other factors; the person(s) responsible for conducting monitoring activities, including consulting Native American representative(s); how the monitoring shall be conducted and the required format and content of monitoring reports; schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports; protocol for notifications in case of encountering cultural resources, as well as methods of dealing with the encountered resources (e.g., collection, identification, curation); and the methods to ensure security of cultural resources sites. During the course of the monitoring, the archaeologist and consulting Native American representative(s) may adjust the frequency—from continuous to intermittent—of the monitoring based on the conditions and professional judgment regarding the potential to impact resources, with approval of the CPUC. • The LSPGC CRMP will be submitted to CPUC for approval prior to implementation as well as all subsequent reports, plans, and resource documentation resulting from implementation of the CRMP.	

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
	PG&E Mitigation Measure 3.5-1: Cultural Resources Treatment Plan (CRTP). • CPUC, PG&E, consulting Native American representative(s), and a Secretary of the Interior–qualified archaeologist shall determine whether preservation in place of significant cultural resources is feasible. Consistent with CEQA Guidelines Section 15126.4(b)(3), this may be accomplished by planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If it is determined that preservation in place is not feasible, data recovery through archaeological investigations shall be completed. • PG&E shall retain a Secretary of the Interior–qualified archaeologist, in consultation with consulting Native American representative(s), to prepare and implement a Cultural Resources Treatment Plan (CRTP). The CRTP shall include a plan to treat all cultural materials identified during construction that are contributing constituents of historical resources. The purpose of the treatment program will be to identify the procedures to follow in the event that cultural materials associated with historical archaeological resources are identified, define the tribal engagement procedures, and identify a place for cultural resources to be safely stored, if needed, until they can be reburied or treated in accordance with the tribe(s) recommendations, if the materials are Native American, in accordance with all applicable laws. Treatment could consist of (but would not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim of targeting the recovery of important data contained in the portion of the significant resource to be affected by the Project. The methods of treatment would be determined in consultation with the consulting Native American representative(s). The CRTP shall include provisions for analysis of data in a regional context; reporting of results in a timely manner and subject to review and comments by the consulting Native American representative(s); disposition of resources acceptable to the consulting Native American representative(s); and dissemination of final confidential reports to the Northwest Information Center of the California Historical Resources Information System. • The CRTP will also include a monitoring plan. The monitoring plan will specifically identify: – the location(s) where monitoring will be completed based on soil types, geology, distance to known sites, and other factors; – the person(s) responsible for conducting monitoring activities, including consulting Native American representative(s); – the method for conducting the monitoring and the required format and content of monitoring reports; – the schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports; – the protocol for notifications in case of encountering cultural resources, as well as methods of managing the encountered resources (e.g., collection, identification, curation, repatriation); – and the methods to ensure security of cultural resources sites.	SU

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
	• During the course of the monitoring, the archaeologist and consulting Native American representative(s) may adjust the frequency of the monitoring from continuous to intermittent based on the conditions and professional judgment of the archaeologist and Native American representative(s) regarding the potential to affect cultural resources. • The PG&E CRTP will be submitted to CPUC for approval before implementation. Similarly, all subsequent reports, plans, and resource documentation resulting from implementation of the CRTP will be submitted to CPUC for approval.	
Impact 3.5-2: The Project may disturb any human remains, including those interred outside of dedicated cemeteries.	**LSPGC Mitigation Measure 3.5-1: Cultural Resources Management Plan (CRMP)**	LSM
Energy		
Impact 3.6-1: The Project would result in wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation.	No measure required.	LTS
Geology and Soils		
Impact 3.7-1a: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.	No measure required.	LTS
Impact 3.7-1b: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	No measure required.	LTS
Impact 3.7-1c: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.	No measure required.	LTS
Impact 3.7-2: Project construction would not result in substantial soil erosion or the loss of topsoil.	No measure required.	LTS
Impact 3.7-3: The Project would not 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.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
Impact 3.7-4: The Project would not be located on expansive soil creating substantial direct or indirect risks to life or property.	No measure required.	LTS
Impact 3.7-5: Project construction would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	No measure required.	LTS
Greenhouse Gas Emissions		
Impact: 3.8-1: The Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	No measure required.	LTS
Impact 3.8-2: The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	No measure required.	LTS
Hazards and Hazardous Materials		
Impact 3.9-1: The Project would involve the routine transport, use, and disposal of hazardous materials that could result in an accidental release of hazardous materials into the environment.	No measure required.	LTS
Impact 3.9-2: The Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	No measure required.	LTS
Impact 3.9-3: The Project would 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 measure required.	LTS
Impact 3.9-4: The Project would not result in a safety hazard or excessive noise for people residing or working in the Project area due to it being 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.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
Impact 3.9-5: The Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	No measure required.	LTS
Impact 3.9-6: The Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	No measure required.	LTS
Impact 3.9-7: The Project would not expose workers or the public to excessive shock hazards.	No measure required.	LTS
Hydrology and Water Quality		
Impact 3.10-1: The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	No measure required.	LTS
Impact 3.10-2: The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.	No measure required.	LTS
Impact 3.10-3: The Project would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river nor through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.	No measure required.	LTS
Impact 3.10-4: The Project would create or contribute runoff water which could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	No measure required.	LTS
Impact 3.10-5: The Project would be partially located in a flood hazard zone and risk the release of pollutants due to Project inundation.	No measure required.	LTS
Impact 3.10-6: The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
Mineral Resources		
Impact 3.12-1: The Project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state.	No measure required.	LTS
Impact 3.12-2: The Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	No measure required.	LTS
Noise		
Impact 3.13-1: Project construction would generate a substantial temporary increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance.	**LSPGC Mitigation Measure 3.13-1a: Nighttime Construction Noise Plan** LSPGC and/or its contractors shall develop and implement a nighttime construction noise plan specific to each occurrence of nighttime construction activities proposed to occur within 500 feet of residences. For the purposes of implementation of this measure, "nighttime" means between the hours of 7:00 p.m. and 7:00 a.m. Each plan shall describe the proposed nighttime construction activities in detail and explain why such activities cannot be conducted during daytime hours and shall be submitted to CPUC for review and approval at least 30 days before the start of the subject nighttime construction activities. A plan shall not be required for emergency situations where stopping construction activities would result in hazardous conditions for workers or the public. Each plan shall include but not be limited to the following requirements for nighttime construction activities: • The plan shall include documentation that a variance from the municipal code of the applicable local jurisdiction (i.e., the City of San José or Santa Clara County) has been received. • Activities shall be planned to minimize the amount of nighttime construction. • Impact tools (e.g., jackhammers, pavement breakers) and pile drivers shall be prohibited during nighttime hours. • When nighttime construction activities take place within 200 feet of noise-sensitive receptors, portable construction noise barriers, such as paneled noise shields, barriers, enclosures, or sound curtains, shall be used adjacent to or around loud stationary equipment. 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. • A notice shall be distributed by mail, personal visit, door hanger, or email to the potentially affected residences and other sensitive receptors within 200 feet of the nighttime construction activities, describing where and when nighttime construction activities will occur. **LSPGC Mitigation Measure 3.13-1b: Construction Noise Reduction and Logistics Plan** LSPGC and/or its contractors shall develop a construction noise reduction and logistics plan for residences within 500 feet of the Grove HVDC Terminal site, for residences within 500 feet of trenchless installation pits in unincorporated Santa Clara County, and for unincorporated Santa Clara County commercial uses within 40 feet of transmission line construction activities. The plan shall be	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
	submitted to CPUC for review and approval at least 60 days before the start of construction activities. The plan shall include but not be limited to the following measures for construction activities: • A notice shall be distributed to the potentially affected residences and commercial uses described above. The notice shall list a "hotline" telephone number that shall be attended during active construction working hours, for use by the public to register complaints. The notice shall identify a noise disturbance coordinator responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints and institute actions warranted to correct the problem. All complaints shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken. The distribution shall also include the construction schedule. • All construction equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof, to meet relevant noise limitations. • Maximum physical separation, as far as practicable, shall be maintained between noise sources (construction equipment) and sensitive noise receptors. Separation may be achieved by locating stationary equipment to minimize noise impacts on the community. • Impact tools (e.g., jackhammers, pavement breakers) used during construction activities shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. • The proposed perimeter wall at the Grove HVDC Terminal shall be installed as part of the first phase of construction activities at the terminal site. • Construction noise barriers such as temporary soundwalls, acoustic blankets, or other barriers shall be used to shield construction noise generated (1) at the Grove HVDC Terminal site from residences west of the site that would be exposed to construction noise for 1 year or more from activities involving heavy equipment; (2) at the trenchless construction pit from residences off Monterey Road; and (3) by stationary sources such as compressors and generators along the Grove to Skyline 320 kV transmission line alignment from commercial uses within 40 feet of construction activities. Heights and specifications of noise barriers shall be designed to ensure that the line of sight is broken between the active construction equipment and the residence.	
Impact 3.13-2: Project operation would generate a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance.	**LSPGC Mitigation Measure 3.13-2: Grove Terminal Noise Characterization and Reduction Plan** LSPGC shall retain an acoustical engineer/specialist to prepare a noise characterization and reduction report. The report shall identify ambient noise levels near the Grove HVDC Terminal site and include recommendations to help ensure that operational noise from the Grove HVDC Terminal does not result in an exceedance of any noise level standard in the city of San José or Santa Clara County general plan or municipal code, relative to ambient noise levels. The noise characterization and reduction plan shall be submitted to the City, County, and CPUC for review and approval. The submitted plan shall be accompanied by a cover letter from LSPGC that expresses a commitment to implementing all recommended noise controls identified in the plan. The ambient noise level survey shall be conducted before the start of construction at the site for a continuous period of no less than 5 days, and the plan shall characterize the day-night average noise level (DNL) and hourly equivalent sound level (Leq) values for each 24-hour period of the noise survey.	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
	The plan shall present the proposed Grove HVDC Terminal's operational noise levels at the closest residences. The noise levels shall be estimated using a three-dimensional sound propagation model for aggregate noise emissions from the Grove terminal's equipment noise sources. The modeling shall be based on sound power levels for each piece of terminal equipment, obtained from the final specification sheets issued by the equipment manufacturer(s). The modeling shall incorporate the proposed terminal equipment layout and all noise-attenuating features such as the perimeter wall. The report shall identify, and present a modeling analysis of, any additional specific noise control design features required to ensure that noise levels at nearby sensitive receptor properties are compatible with city of San José and Santa Clara County noise standards relative to measured ambient noise levels. Such additional measures may include but would not be limited to designing the western perimeter wall to block the line of sight between the nearby residences and major noise sources at the site, using noise shields and/or enclosures to attenuate noise from individual pieces of equipment, and reorienting equipment to maximum attenuation due to distance. The plan shall include a requirement to conduct a noise level survey once the Grove HVDC Terminal becomes operational. The survey shall be conducted during peak use of the terminal to verify that noise levels are compatible with city of San José and/or Santa Clara County standards. If the standards are exceeded, then the acoustic engineer/analyst will recommend additional design features to ensure that the City and/or County noise-level standards are not exceeded and an additional noise level survey shall be conducted once the additional design features have been implemented.	
Impact 3.13-3: Project construction would generate excessive groundborne vibration noise levels.	**LSPGC Mitigation Measure 3.13-3: Vibration Monitoring for High Vibratory Equipment Contingency Plan** LSPGC and/or its construction contractors shall conduct a site survey along segments of the proposed transmission line alignments where trenchless construction techniques may occur within 50 feet of existing structures. If construction with high vibratory equipment occurs within 50 feet of structures, a vibration monitoring for high-vibratory equipment contingency plan shall be implemented. The plan shall include the following measures, as necessary, to prevent vibration damage to vibration-sensitive structures: • LSPGC and/or its construction contractors shall identify vibration-sensitive structures within 50 feet of the final transmission line alignments where high vibratory equipment is planned to be used. • Where such structures are identified, LSPGC shall implement the following measures as necessary to avoid construction vibration impacts: – Place operating equipment on the construction site as far as feasible from vibration-sensitive receptors. – Use smaller equipment to minimize vibration levels below the limits. – Avoid using vibratory rollers and tampers near sensitive areas. – Select construction methods that do not involve impact/vibratory tools (e.g., drilling) where feasible.	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
	• If the above reduction measures do not lower anticipated vibration levels below loaded truck levels or are not feasible, a qualified professional shall prepare a technical vibration study that verifies that there would be no risk of cosmetic or structural damage. • Based on the results of the vibration study, LSPGC and/or its construction contractors shall identify where vibration monitoring is to be conducted; establish a vibration monitoring schedule; define structure-specific vibration limits; and address the need to conduct photo, elevation, and crack surveys to document before- and after-construction conditions. • Construction contingencies shall be identified for when vibration levels approach the limits identified by the vibration study. Construction contingencies may include procedures such as the use of alternative construction equipment or construction phasing that would reduce potential damage to affected structures. • LSPGC shall designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted at the construction site. • The results of all vibration monitoring shall be summarized and submitted in a report shortly after substantial completion of trenchless construction that occurs within 50 feet of structures. The report shall describe measurement methods and equipment used and include calibration certificates and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits shall be included together with documentation supporting any such claims.	
Impact 3.13-4: Project operation would generate groundborne vibration noise levels.	No measure required.	LTS
Impact 3.13-5: The Project could expose people working in the Project area to excessive airport noise levels.	No measure required.	LTS
Population and Housing		
Impact 3.14-1: The Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	No measure required.	LTS
Recreation		
Impact 3.16-1: The Project construction would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
Impact 3.16-2: The Project would not reduce or prevent access to a designated recreation facility or area.	No measure required.	LTS
Impact 3.16-3: The Project could damage recreational trails or facilities.	No measure required.	LTS
Transportation		
Impact 3.17-1: The Project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	**LSPGC Mitigation Measure 3.17-1a: Implement Coordinated Traffic Control Plan** LSPGC shall coordinate with relevant local agencies to determine any coordination needs related to construction activities occurring in the Project vicinity that may temporally overlap with Project construction, such as projects identified as potentially contributing to cumulative effects. Prior to the start of construction, LSPGC shall prepare and implement a traffic control plan for roadways affected by the Project. The traffic control plan shall include, but not be limited to, the following requirements: • Coordination of individual traffic control plans for the Project with nearby projects. As available, the individual traffic controls plans shall be appended to the Project's traffic control plan. • Coordination between LSPGC, Project proponents, contractors, and local agencies in developing circulation and detour plans that include safety features (e.g., signage and flaggers). The circulation and detour plans shall address the following: – Full and partial roadway closures. – The use of signage and flagging to guide vehicles through or around the construction zone and any temporary traffic control devices. – Bicycle or pedestrian detour plans, where applicable. – Parking along public roadways. – Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites. – Protocols for updating the traffic control plan to account for delays or changes in the schedules of individual projects. LSPGC's traffic control plan, with proof of coordination, shall be submitted to the CPUC before the start of construction. **LSPGC Mitigation Measure 3.17-1b: Infrastructure Repair Reporting** Prior to the start of construction, LSPGC shall document existing conditions of all facilities that are potentially impacted by the project. After completion of the repair of any damaged roads, sidewalks, trails, and bicycle facilities resulting from Project construction activities, pursuant to APM TRA-3, LSPGC shall submit a report to the CPUC and other jurisdictions whose facilities have been affected by Project construction (e.g., city, county, state, etc.). This report will confirm that repairs are consistent with preconstruction conditions and in accordance with applicable requirements associated with permits granted for the Project. The report shall be submitted within 30 days after completion of the repair(s).	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
Impact 3.17-2: Project operation and maintenance would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b).	No measure required.	LTS
Impact 3.17-3: The Project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections).	**Mitigation Measure 3.17-1a: Implement Coordinated Traffic Control Plan.** **Mitigation Measure 3.17-1b: Infrastructure Repair Reporting.**	LSM
Impact 3.17-4: The Project could result in inadequate emergency access.	**Mitigation Measure 3.17-1a: Implement Coordinated Traffic Control Plan.**	LSM
Impact 3.17-5: The Project could create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations.	**Mitigation Measure 3.17-1a: Implement Coordinated Traffic Control Plan.** **Mitigation Measure 3.17-1b: Infrastructure Repair Reporting.**	LSM
Impact 3.17-6: Project construction could interfere with walking or bicycling accessibility.	**Mitigation Measure 3.17-1a: Implement Coordinated Traffic Control Plan.** **Mitigation Measure 3.17-1b: Infrastructure Repair Reporting.**	LSM
Impact 3.17-7: Project construction could substantially delay public transit.	**Mitigation Measure 3.17-1a: Implement Coordinated Traffic Control Plan.**	LSM
Tribal Cultural Resources		
Impact 3.18-1: The Project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe.	**LSPGC Mitigation Measure 3.5-1: Cultural Resources Management Plan (CRMP)** **PG&E Mitigation Measure 3.5-1: Cultural Resources Treatment Plan (CRTP)**	SU
Utilities and Service Systems		
Impact 3.19-1: The Project could require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
Impact 3.19-2: The Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.	No measure required.	LTS
Impact 3.19-3: The Project would not result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.	No measure required.	LTS
Impact 3.19-4: The Project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	No measure required.	LTS
Impact 3.19-5: The Project could increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts.	**LSPGC Mitigation Measure 3.19-5: Utility Coordination and Induction Study** At least 90 days prior to the start of construction, LSPGC shall notify all municipalities, companies, and other public and private entities owning and maintaining utilities within or crossing the right-of-way of the Project and shall positively identify and confirm the location and type of any utilities present. For those identified utilities that do not pose a threat of AC-induced corrosion attributable to the Project, APM UTIL-1 shall be implemented. For the identified natural gas pipelines, and all other utilities potentially affected by Project-related AC-induced corrosion (i.e., metallic utilities), design and construction of the Project's transmission lines shall be coordinated with the applicable utility owners to definitively locate each utility relative to the Metcalf to Grove 500 kV AC underground transmission line, determine the distance of separation between the transmission line and potentially affected utility, and determine the point of intersection and/or distance along which the Project transmission line is parallel to the utility. LSPGC shall prepare a detailed induction study for all identified existing utilities potentially affected by the Project transmission line alignments. At minimum, the study shall include, but not be limited to, a detailed analysis of the known [metallic] pipelines or other utilities identified during these utility surveys; shall identify adequate and implementable measures to avoid corrosion potential; and shall present commitments to the implementation of those actions, including a design of the AC mitigation system for any pipeline found to have an AC potential of 2 volts or greater and a schedule to implement any required AC mitigation systems. Pursuant to Section 6.6.2 of National Association of Corrosion Engineers SP21424-2018, *Alternating Current Corrosion on Cathodically Protected Pipelines: Risk Assessment, Mitigation and Monitoring*, the induction study shall demonstrate that any required mitigation system would reduce the AC potential to less than 2 volts, or an AC density level of less than a time-weighted average of 30 amperes per square meter. No less than 60 days prior to the start of construction, LSPGC shall submit the full induction study, including the AC mitigation component, to the CPUC for review and concurrence. Once the CPUC concurrence is secured, LSPGC shall implement the AC mitigation system during construction of the Project, phased into the construction process as appropriate.	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	CEQA Mitigation Measures	Significance with Measures Implemented
Wildfire		
Impact 3.20-1: The Project would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	No measure required.	LTS
Impact 3.20-2: The Project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	No measure required.	LTS

NOTES:

APM = Applicant-proposed measure; BMP = best management practices; CEQA = California Environmental Quality Act; FPs = field protocols; LSM = Less than Significant with Mitigation; LTS = Less than Significant; PG&E = Pacific Gas & Electric Company

SOURCE: Data compiled by Environmental Science Associates in 2025

ES.6 Overview of Alternatives to the Project

CEQA requires that an EIR analyze a reasonable range of alternatives to the project that could feasibly attain the basic objectives of the project while substantially reducing or eliminating significant environmental effects. CEQA also requires that an EIR evaluate a "no project" alternative to allow decision-makers to compare the impacts of approving a project with the impacts of not approving the project. The alternatives development and screening process, alternatives eliminated from further consideration, and alternatives considered in the EIR are described in greater detail in Chapter 4, *Alternatives.*

ES.6.1 Alternatives Eliminated from Further Consideration

Consistent with CEQA Guidelines Section 15126.6, the County eliminated the potential alternatives listed below from detailed consideration in this EIR if they failed to meet the screening criteria outlined in Section 4.3, *Alternatives Screening and Development Process*:

- Technology Alternatives
  - High Voltage Alternating Current (HVAC) Alternative
  - Energy Storage Alternative
- Grove Terminal Alternatives
  - Grove Terminal Alternative 1
  - Grove Terminal Alternative 2
  - Grove Terminal Alternative 4
- Metcalf to Grove Transmission Line Alignment Alternatives
  - Metcalf to Grove Transmission Line Alignment 1
  - Metcalf to Grove Transmission Line Alignment 2
  - Metcalf to Grove Transmission Line Alignment 3
  - Metcalf to Grove Transmission Line Alignment 4
  - Metcalf to Grove Transmission Line Alignment 5

ES.6.2 Alternatives Considered in the EIR

The CPUC initially considered and then carried forward the following three alternatives for more detailed evaluation:

- Grove Terminal Alternative 3
- Downtown Alignment Alternative 1
- Downtown Alignment Alternative 2

ES.6.3 Comparison of Alternatives

Table 4-11, *Summary of Impacts of the Project and Alternatives*, in Chapter 4 comparatively analyzes the impacts of the No Project, Alternative 1, and Alternative 2 relative to the Project. **Table ES-4**, *Comparison of Impacts*, summarizes the comparison of impacts among the Project, Alternative 1, and Alternative 2. See Table 4-4 for details.

ES.7 Environmentally Superior Alternative

The CEQA Guidelines define the environmentally superior alternative as that alternative with the least adverse impacts on the project area and its surrounding environment. The No Project Alternative is considered the environmentally superior alternative for CEQA purposes because it would avoid all impacts of the Project. However, the No Project Alternative would fail to meet the basic objectives of the Project. In addition, the No Project Alternative would not offset greenhouse gas emissions associated with nonrenewable energy use the way the Project would make possible. Because the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives.

Determining an environmentally superior alternative can be difficult because of the many factors that must be balanced. Nonetheless, at this stage of this Draft EIR, the combination of the "Proposed Alignment + Grove Terminal Alternative 3" (i.e., Alternative Combination 1, or AC-1) has been determined to be preferred because, relative to the Project, would avoid or reduce potentially significant impacts of the Project on aesthetics, agricultural and forestry resources, air quality, biological resources, energy, geology, soils, and paleontological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, recreation, transportation, utilities, and wildfire. However, AC-1 would potentially result in greater environmental impacts related to cultural resources, tribal cultural resources, and utilities. Please see Chapter 4, *Alternatives*, for a full discussion of the Project's alternatives.

As discussed, under Section 4.6.2, placing the proposed Grove HVDC Terminal next to the existing PG&E Metcalf Substation would result in the avoidance of converting Prime Farmland to non-agricultural uses, which would otherwise have a potentially significant impact (less-than-significant with mitigation) under the Project. Further, since AC-1 would result in shorter lengths for the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV Transmission Line by approximately 1.2 miles each, construction-related short-and long-term impacts from trenchless construction would be reduced for several resources, as noted above. For example, the significantly shorter Metcalf to Grove 500 kV Transmission Line would no longer traverse 1.2 miles along Coyote Creek Trail and Coyote Creek, which, under the Project, would result in potentially significant impacts associated with biological resources, recreation, and transportation, among other resource areas.

However, placing the proposed Grove HVDC Terminal within the existing PG&E Metcalf Substation is anticipated to have potential impacts related to cultural resources, which would be reduced to a less-than-significant level with mitigation. Further, AC-1 would have similar impacts related to tribal cultural resources, which would be significant and unavoidable, even with the

TABLE ES-4
COMPARISON OF IMPACTS

Resource Area	Alternative Combination 1	Alternative Combination 2	Alternative Combination 3	Alternative Combination 4	Alternative Combination 5
Aesthetics	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Agriculture and Forestry Resources	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Air Quality	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Biological Resources	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Cultural Resources	Same as the Project	Same as the Project	Same as the Project	Same as the Project	Same as the Project
Energy	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Geology, Soils, and Paleontological Resources	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Greenhouse Gas Emissions	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Hazards and Hazardous Materials	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Hydrology and Water Quality	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Land Use and Planning	Same as the Project	Same as the Project	Same as the Project	Same as the Project	Same as the Project
Mineral Resources	Same as the Project	Same as the Project	Same as the Project	Same as the Project	Same as the Project
Noise	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Population and Housing	Same as the Project	Same as the Project	Same as the Project	Same as the Project	Same as the Project
Public Services	Same as the Project	Same as the Project	Same as the Project	Same as the Project	Same as the Project
Recreation	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Transportation	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Tribal Cultural Resources	Same as the Project	Same as the Project	Same as the Project	Same as the Project	Same as the Project
Utilities and Service Systems	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project
Wildfire	Less than the Project	Same as the Project	Less than the Project	Same as the Project	Less than the Project

NOTE: Project = Power Santa Clara Valley Project

SOURCE: Data compiled by Environmental Science Associates in 2025

implementation of mitigation measures, as there is high potential for unrecorded subsurface archaeological remains. Furthermore, it is expected at this stage of the Draft EIR that AC-1 would have similar impacts to utilities as the Project, with particular consideration to the utilities at the northern portion of the Project, in the vicinity of downtown San José. It is anticipated that, compared to the Project, AC-1 would result in similar to lesser impacts across most resource areas discussed in Chapter 3. For these reasons, AC-1 is considered the environmentally superior alternative.

Additional information received in or developed during the agency and public review period for the Draft EIR, or during the Project approval process, could affect the balancing of the respective benefits and consequences of the alternatives. Accordingly, while a preliminary determination has been made that AC-1 would be the Environmentally Superior Alternative, it would be premature to formally designate it as such at this stage. This preliminary determination as to which alternative is the Environmentally Superior Alternative will be confirmed or corrected in the Final EIR.

ES.8 Areas of Controversy

Any of the environmental issues considered during scoping or in this Draft EIR could become an issue of controversy. Preliminarily, the CPUC has identified areas of controversy as including the issues and questions raised in agency and public comments received during scoping; all comments received during the scoping period are included in the Project's scoping report, which is included as Appendix A to this Draft EIR. Issues identified as potential areas of controversy relate to the Project Description, Biological Resources, Hydrology, Noise and Vibration, Recreational Resources, Transportation, Wildfire, Comparison of Alternatives, and Cumulative Impacts.

ES.9 Issues to be Resolved

Section 15123(b)(3) of the CEQA Guidelines requires that a summary of an EIR identify issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved:

- Determine whether the EIR adequately described the environmental impacts of the Project.
- Choose among alternatives.
- Determine whether the recommended mitigation measures should be adopted or modified.
- Determine whether additional mitigation measures need to be applied to the Project.
- Determine whether the significant and unavoidable impact related to cultural resources and tribal cultural resources outweighs the need for the Project and, if so, prepare a statement of overriding considerations.

ES.10 References

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EDD (Employment Development Department). 2025. *Current Employment Statistics 2014–2024 Monthly.* Available: https://data.ca.gov/dataset/2a5f872d-f7fe-49f2-9581-8f1b17ce5b90/resource/98b69522-557e-464a-a2be-4226df433da1/download/ces_2014-2024_monthly_2025127.csv. Accessed February 3, 2025.

CHAPTER 1
Introduction

1.1 Purpose of This Document

LS Power Grid California, LLC (LSPGC), in its California Public Utilities Commission (CPUC) application (A.24-04-017) filed on April 29, 2024, requested a certificate of public convenience and necessity (CPCN) for the proposed Power Santa Clara Valley Project (Project) within the City of San José and unincorporated Santa Clara County. LSPGC's application for a CPCN included the Proponent's Environmental Assessment (PEA), which LSPGC prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure. The Project was identified by the California Independent System Operation[1] (CAISO) to ensure the reliability of the CAISO-controlled grid.

This Environmental Impact Report (EIR) is an informational document intended to disclose to the public and decision-makers the environmental impacts of the Project proposed by LSPGC. The EIR assesses the direct, indirect, and cumulative environmental impacts that would occur as a result of the construction, operation, and maintenance of the Project and its alternatives.

This EIR examines all of the resource areas in the California Environmental Quality Act (CEQA) Guidelines Appendix G Checklist including: Aesthetics; Agriculture and Forestry Resources; Air Quality; Biological Resources; Cultural Resources; Energy; 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; Tribal Cultural Resources; Utilities and Service Systems; and Wildfire.

1.2 Project Overview

The Project includes components that would be constructed and operated by LSPGC. These components consist of two new high-voltage direct current (HVDC) terminals, an approximately 13-mile underground transmission line connecting the new HVDC terminals, an approximately 1.2-mile underground transmission line connecting one of the new HVDC terminals to the existing Pacific Gas and Electric Company (PG&E) Metcalf Substation, and an approximately 100-foot overhead transmission tie line to connect one of the new HVDC terminals to the existing PG&E San Jose B Substation. Connection to the PG&E Metcalf and PG&E San Jose B

[1] CAISO is a non-profit Independent System Operator serving California, specifically managing transmission systems that deliver wholesale electricity to local utilities for distribution to customers as well as overseeing transmission planning to maximize efficiency and reliability through regional grid reliability requirements.

substations would require PG&E to modify the existing PG&E Metcalf Substation and expand and upgrade the existing PG&E San Jose B Substation. The Project's components are as follows:

- Skyline HVDC Terminal
- Grove HVDC Terminal
- Grove to Skyline 320-kilovolt (kV) Direct Current (DC) Transmission Line
- Metcalf to Grove 500 kV Alternating Current (AC) Transmission Line
- Skyline to San Jose B 230 kV AC Transmission Tie Line
- Modifications to the existing PG&E Metcalf Substation
- Expansion of and modifications at the existing PG&E San Jose B Substation

The Project, for the purpose of this CEQA analysis, includes both LSPGC's Power Santa Clara Valley Project and the expansion and modifications to the existing PG&E substations. The CPUC will use the information in this CEQA document to inform its decision whether to approve LSPGC's application to construct and operate the LSPGC Power Santa Clara Valley Project only. The proposed modifications to the PG&E substations, though included in the PEA filed with LSPGC's application, and analyzed in this CEQA document as part of the whole of the Project, are not part of the work submitted for authorization in LSPGC's application as PG&E is not an applicant. The PG&E work would be authorized or noticed separately pursuant to CPUC General Order 131-E, while LSPGC's work would be authorized pursuant to CPUC General Order 131-D[2].

The Project would be located within the city of San José and unincorporated Santa Clara County. A map that shows the Project location is presented in **Figure 1-1**, *Project Location*.

The Project was awarded by CAISO through a competitive solicitation process to LSPGC, a Delaware limited liability company established to own and operate transmission projects in California as a designated California public utility.

1.3 Proposed Project Purpose and Objectives

A project description in a CEQA analysis must state the objectives sought by the proposed project. The statement of objectives should include the underlying purpose of the project and should be clearly written to guide the selection of mitigation measures and alternatives to be evaluated in the EIR (CEQA Guidelines § 15124(b)). Below are descriptions of the proposed Project purpose and objectives.

[2] LSPGC's application for a CPCN was initially filed and deemed complete in June 2024 when General Order (GO) 131-D was in effect, therefore, LSPGC's portion of the Power Santa Clara Valley Project will be permitted under GO 131-D. All filings after January 30, 2025, are subject to GO 131-E requirements, therefore, PG&E's portion of the Project will be permitted under GO 131-E. Because LSPGC's CPCN application includes components within and adjacent to PG&E property, PG&E became a Party of the CPUC's Proceeding for LSPGC's CPCN application, following Rule 1.4 from CPUC's Rules of Practice and Procedure.

SOURCE: LS Power, 2024

Power Santa Clara Valley Project

Figure 1-1
Project Location

1.3.1 Project Purpose

The Project's purpose is to strengthen the electrical grid in the San Francisco Bay Area, specifically within the city of San José and unincorporated Santa Clara County. The Project would:

- Ensure the reliability of the South Bay sub-area of the CAISO-controlled grid;
- Provide better access to cost-effective, renewable energy and other electric transmission grid benefits;
- Support the provision of safe, reliable, and adequate electricity service to the Pacific Gas & Electric Company and Silicon Valley Power service territories;
- Provide voltage support to the existing PG&E transmission system to support additional load growth; and
- Facilitate the importation and use of renewable electricity to fulfill the State of California's energy policies and goals by ensuring reliable operation of the grid.

1.3.2 Objectives

Project objectives as identified by LSPGC are as follows:

- Meet CAISO's reliability-driven need by addressing multiple near-, mid-, and long-term reliability issues in the existing San José area 115 kV system.
- Meet the technical specifications set forth by CAISO for a voltage source converter HVDC link in the San José area located near or adjacent to the existing PG&E San Jose B Substation and Metcalf Substation. Adjacency to the existing PG&E San Jose B and Metcalf substations would reduce the length of the interconnection transmission lines, thereby reducing right-of-way (ROW) requirements and the potential for significant environmental impacts.
- Improve and maintain the reliability of the transmission grid by providing dynamic reactive power support and increase the deliverability of renewable power, by building and operating a facility that would help keep transmission voltages within specified parameters, reduce transmission losses, increase reactive margin for the system bus, increase transmission capacity, provide a higher transient stability limit, increase damping of minor disturbances, and provide greater voltage control and stability.
- Facilitate the deliverability of energy from existing and proposed renewable generation projects to the Greater San Francisco Bay Area (Greater Bay Area) and corresponding progress toward achievement of California's Renewables Standard Portfolio goals in a timely and cost-effective manner by California utilities.
- Comply with and assist CAISO in meeting applicable Reliability Standards and Criteria developed by the North American Electric Reliability Corporation, Western Electricity Coordinating Council, and CAISO.

The following additional objective is identified as influenced by CAISO's decision to update its 2021-2022 transmission plan, which included a modified version of the Project.

- Provide a suitable foundation for future grid upgrades expected to be needed to serve the long-term forecasted electricity load in the San José area, as identified by CAISO.

1.4 Agency Use of This Document

Section 15124(d) of the CEQA Guidelines requires that an EIR contains 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 The 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 LSPGC. The CPUC is the lead agency for CEQA compliance in evaluation of the LSPGC's 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 LSPGC's application for a CPCN for the 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, setting forth reasons supporting its actions, 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 State Office of Historic Preservation would be involved in reviewing and/or approving the proposed Project. On the federal level, agencies with potential reviewing and/or permitting authority include the U.S. Department of Interior/ Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS) and U.S. Department of Defense, EAFB.

Because the CPUC has preemptive jurisdiction over construction, operation, and maintenance of LSPGC facilities in California, no local discretionary (use permits) are required. LSPGC would be responsible for obtaining all necessary ministerial building, grading, and encroachment permits from local jurisdictions. The CPUC's General Order 131-D requires LSPGC to comply with local building, design, and safety requirements and standards, to the degree feasible, to minimize potential Project conflicts with local land uses.[3]

[3] On January 30, 2025, in Decision 25-01-055, the CPUC adopted General Order 131-E (GO 131-E), which supersedes GO 131-D. However, as LSPGC filed its CPCN application prior to the adoption of GO 131-E, this Draft EIR has been prepared pursuant to the protocol under GO 131-D.

In the context of electric utility projects, CPUC GO 131-D, Section XIV.B, states that:

> *Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the Commission's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters.*

The CPUC's authority does not preempt special districts, such as air quality districts, or other state agencies or the federal government. LSPGC would obtain permits, approvals, licenses, and would participate in reviews and consultations as needed with federal, state, and local agencies as shown in **Table 1-1**, *Anticipated Permits and Approvals.*

TABLE 1-1
ANTICIPATED PERMITS AND APPROVALS[1]

Agency	Permit/Approvals[2]	Permit Trigger	Application Process	Timing
City of San José	Traffic control plan	Partial closure and/or encroachment within City roads.	Submit traffic control plan to the City of San José for review and approval.	Before the start of construction requiring traffic control.
City of San José	Encroachment permit	Construction within City roads or ROWs.	Submit application to the City of San José for review and approval.	Before the start of construction within City roads or ROW.
City of San José	Administrative use permit	Stand-by/back-up generator that does not exceed noise or air quality standards within the Downtown Zoning District.	Submit application to the City of San José for review and approval.	Before the start of construction.
City of San José	Grading permit (non-discretionary)	Grading for the terminal sites.	Submit application to the City of San José for review and approval.	Before the start of construction of the terminal sites.
Santa Clara County	Tree removal approval	Removal of any tree from the County's right-of-way.	Submit application to Santa Clara County for approval.	Before the start of construction within County ROW.
Santa Clara County	Encroachment permit	Work within County roads or ROW.	Submit application to Santa Clara County for review and approval.	Before the start of construction within County roads or ROW.
Santa Clara County	Traffic control plan	Closure or use of traffic control on County roads.	Submit traffic control plan to Santa Clara County for review and approval.	Before the start of construction requiring traffic control.
Santa Clara County	Grading permits (non-discretionary)	Grading for the proposed Grove HVDC Terminal site.	Submit application to Santa Clara County for review and approval.	Before the start of construction of the terminal sites.
Santa Clara Valley Water District	Encroachment permit	Work on or near Valley Water land, easement, or facility.	Submit application to Valley Water for review and approval.	Before the start of construction within or near Valley Water property.
California Department of Transportation (Caltrans)	Encroachment permit	Construction under Caltrans roads or with Caltrans ROWs.	Submit application to Caltrans for review and approval.	Before the start of construction within or near Caltrans ROW.

TABLE 1-1
ANTICIPATED PERMITS AND APPROVALS[1]

Agency	Permit/Approvals[2]	Permit Trigger	Application Process	Timing
California Department of Industrial Relations, Division of Occupational Safety and Health, Mining and Tunneling Unit	Classification of new underground project	Installation of new underground boring or pipejacking greater than 30 inches in diameter.	Submit notification and required information to the Mining and Tunneling Unit, District 1.	Before bidding for construction of the applicable underground feature.
California Department of Fish and Wildlife (CDFW)	Section 2081 incidental take permit or Section 2080.1 consistency determination	Potential take of species listed under the California Endangered Species Act.	Submit application to CDFW for review and approval.	Before the start of construction.
U.S. Fish and Wildlife Service (USFWS)	Section 7 or Section 10 incidental take permit	Potential take of federally listed species, in compliance with the federal Endangered Species Act.	Submit a biological assessment or HCP to USFWS for review and approval.	Before the start of construction.
Federal Aviation Administration (FAA)	Code of Federal Regulations Title 14 Part 77 Notification	Construction of overhead facilities potentially requiring aerial lighting or marking.	Submit notification (FAA Form 7460-1) to FAA.	Before the start of construction.
State Water Resources Control Board (SWRCB)	Clean Water Act, National Pollutant Discharge Elimination System General Permit for Discharge of Construction Related Stormwater	Requirement for a SWPPP for stormwater discharges associated with construction activities that disturb more than one acre of land.	Prepare SWPPP and submit Notice of Intent with the State Water Board.	Before the start of construction.
Union Pacific Railroad	New Wireline Crossing Authorization	Installation of new underground transmission line under Union Pacific's existing railroad via horizontal bore.	Submit application to Union Pacific for review and approval.	Before the start of construction within or near Union Pacific ROW.
Santa Clara Valley Transportation Authority (VTA)	Construction access permit and light rail restricted access permit	Installation of new underground transmission line under existing VTA's light rail system via horizontal bore.	Submit application to Union Pacific for review and approval.	Before the start of construction within or near Union Pacific ROW.

NOTES:

Caltrans = California Department of Transportation; CDFW = California Department of Fish and Wildlife; City = City of San José; CPCN = Certificate of Public Convenience and Necessity; CPUC = California Public Utilities Commission; FAA = Federal Aviation Administration; HCP = habitat conservation plan; PEA = Proponent's Environmental Assessment; ROW = right-of-way; SWPPP = Stormwater Pollution Prevention Plan; USFWS = U.S. Fish and Wildlife Service; Valley Water = Santa Clara Valley Water District; VTA = Santa Clara Valley Transportation Authority

1. Permit requirements in this table only apply to LSPGC and are separate from applicable permits for PG&E upgrades and modifications.
2. Permits/approvals in this table are potentially required and do not necessarily represent a comprehensive list of all possible permits/approvals required for the Project. In addition, some permits in this table may not be ultimately required.

SOURCE: LSPGC 2025

1.5 Public Review and Comment

1.5.1 Educational Outreach and Scoping

On September 6, 2024, the CPUC published and distributed two versions of the Notice of Preparation (NOP), one in English and one in Spanish, to solicit input from federal, state, and local agencies, and the public to inform the scope and content to be considered in the EIR being prepared for the Project. A copy of the NOP was provided to the State Clearinghouse of the Governor's Office of Planning and Research, which assigned State Clearinghouse Number 2024090200 as the Project's unique State identification number for the CEQA review. The Notice of Scoping Meetings and Release of the NOP was mailed to property owners within 300 feet of the Project routes and facility locations. Both, English and Spanish NOPs were also mailed directly to responsible and trustee agencies and to individuals that had previously shown interest in the Project. The NOP provided a brief description of the Project, included a map showing the location of proposed components of the Project, identified potential areas of environmental impacts, and provided notice for a hybrid public scoping meeting, which was held on Wednesday, September 18, 2024, at the Santa Teresa Branch Library Community Room and was also broadcasted online through Zoom.

To announce the release of the English and Spanish NOPs and provide details about the public scoping meeting, the CPUC published two legal notices, one in English and one in Spanish, in the *San José Mercury News*, a daily periodical, and the *Santa Clara Weekly*, a weekly periodical, each in general circulation in the Project vicinity. The English and Spanish legal notices were published in the *San José Mercury News* on September 6, 2024, and in the *Santa Clara Weekly* on September 11, 2024. The meeting announcement and an electronic copy of both, English and Spanish NOPs were also posted on the CPUC's webpage established for the Project at: https://ia.cpuc.ca.gov/environment/info/esa/pscv/index.html.

The English and Spanish NOPs were both posted in four libraries in the Project vicinity during the 32-day scoping period. It was posted between September 6, 2024, to October 7, 2024, at Edenvale Branch Library (101 Branham Lane, San Jose, CA), Tully Community Branch Library (880 Tully Road, San Jose, CA), Rose Garden Branch Library (1580 Naglee Avenue, San Jose, CA), and Santa Teresa Branch Library (290 International Circle, San Jose, CA). Pursuant to CEQA Guidelines 15082, both, English and Spanish NOPs were also sent to the Santa Clara County Clerk-Recorder's Office.

The CPUC conducted a hybrid (in-person and virtual) public scoping meeting on September 18, 2024, in English and provided Spanish translation. The simulcast option was available for attendees online to listen to the Spanish interpretation during the meeting and simultaneous Spanish interpretation services were available in-person as well. The meeting was held from 6:00 pm to 7:00 p.m. The meeting format consisted of a presentation by the CPUC and its consultant staff, followed by an opportunity for in-person and virtual attendees to provide verbal and written comments. Fourteen (14) people attended in person, and twenty-nine (29) attended virtually. Tharon Wright, Roxanne Henriquez, and Andrew Chan of the CPUC, as well as Valisa Nez, Selena Whitney, and Vince Molina of Environmental Science Associates (ESA), consultant

to the CPUC, hosted the meeting. In-person Spanish interpretation services were provided by Martin Vera and Vanessa Lopez of the CPUC Public Advisor's Office (PAO). Also in attendance online were Mike Manka, Marisol Guzman, and Nicole Lobodzinski of ESA and Mona Dzvova and Claudia Sanchez of the CPUC PAO. Online Spanish interpretation services were provided by Gume Garza and Sol Garza of the CPUC PAO.

During the meeting, the CPUC summarized the lead agency's decision and environmental review process and noted the opportunities for public participation within the CEQA process. A brief description of the Project identified by LSPGC in its PEA was presented and the range of environmental issues to be addressed in the EIR was discussed. The types of alternatives that can be considered in the EIR and the next steps in the environmental review process were also addressed at the scoping meeting. Following the presentation, the public was provided with an opportunity to submit oral and/or written comments.

Eleven members of the public provided oral or written comments on the Project during the September 6, 2024, hybrid scoping meeting. The CPUC received four hundred written comment letters during the scoping period. Three hundred and ninety-four members of the public and six public agencies submitted written comments on the project.

This scoping effort is presented in more detail in the CPUC's scoping report for the Project, found in **Appendix A**.

In parallel to, and independent of, the formal scoping process, early tribal outreach and consultation were initiated. As of this scoping report, the following tribes have responded to the CPUC to express interest in the Project, including the Costanoan Rumsen Carmel Tribe, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Tribe of the San Francisco Bay Area, and Tamien Nation.

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 A** provides a copy of the mailing list to which 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 Project.

This Draft EIR identifies the physical environmental impacts of the Project on the environment, indicates whether and how significant impacts would be mitigated or avoided, and identifies and evaluates a reasonable range of alternatives to the Project. This document is intended to provide the CPUC with sufficient information about the environmental effects of the proposed Project such that it may approve the proposed Project. Project approval would be considered at a separate noticed public meeting of the CPUC, subsequent to publication of the Final EIR.

CEQA requires that a lead agency shall neither approve nor implement a project as proposed unless it has eliminated or substantially lessened all significant environmental impacts to the extent feasible, and has determined that any remaining significant effects are "acceptable" when balanced against the project's benefits. In order to approve a project when significant impacts identified in the Final EIR cannot be fully mitigated, the lead agency must adopt a statement of overriding considerations, setting forth the reasons supporting its action. Findings of Fact and the Statement of Overriding Considerations must be included in the record of project approval and referenced in the Notice of Determination (NOD).

1.6 Reader's Guide to This EIR

This Draft EIR is organized as follows:

Executive Summary. This summary provides a summary description of the Project, the alternatives, their respective environmental impacts, and identifies the Environmentally Superior Alternative. It also provides a summary table of the impacts of the proposed Project and alternatives, as well as feasible mitigation measures to reduce identified effects.

Chapter 1, *Introduction*. The Introduction provides a discussion of the Project's background and project objectives, briefly describes the Project, and outlines the public agency use of the EIR.

Chapter 2*, Project Description*. This chapter provides a detailed description of the Project.

Chapter 3, *Environmental Analysis*. This chapter provides a comprehensive analysis and assessment of impacts and mitigation measures for the Project. This chapter is divided into sections for each environmental issue area (e.g., air quality, biological resources, etc.) that describe the environmental and regulatory settings for each resource area, as well as identifying impacts and mitigation measures for the proposed Project and each alternative. Each resource section identifies the cumulative projects considered in the analysis of cumulative impacts. A discussion of the cumulative impacts of the Project in combination with reasonable foreseeable past, present, and future projects is provided.

Chapter 4, *Alternatives Analysis and Comparison of Alternatives*. This chapter provides a description of the alternatives screening and evaluation process, describes the alternatives considered but eliminated from further analysis and the rationale, therefore. It also provides a discussion of the relative environmental advantages and disadvantages of the proposed Project and the alternatives that were evaluated in the Draft EIR and identifies the Environmentally Superior Alternative.

Chapter 5, *Other CEQA Considerations*. This chapter provides a discussion of growth-inducing impacts, significant environmental effect(s) that cannot be avoided, irreversible environmental changes, and environmental justice.

Chapter 6, *Report Preparers*. This chapter identifies the primary authors of this Draft EIR.

Appendix A. Scoping Report

Appendix B. Air Quality, Greenhouse Gas, and Energy Calculations and Modeling

Appendix C. Special-Status Species with Potential to Occur in the Project Area

Appendix D. Paleontological Resources Technical Report

Appendix E. Noise Appendix

Appendix F. Preliminary Induction Study

List of Figures (included in the Table of Contents)

List of Tables (included in the Table of Contents)

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CHAPTER 2
Project Description

2.1 Introduction

LS Power Grid California, LLC (LSPGC), in its California Public Utilities Commission (CPUC) application (A.24-04-017) filed on April 29, 2024, requested a certificate of public convenience and necessity (CPCN) for the proposed Power Santa Clara Valley Project (Project) within the city of San José and unincorporated Santa Clara County. LSPGC's application for a CPCN included the Proponent's Environmental Assessment (PEA), which LSPGC prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure.

The Project was identified as a reliability-driven electric transmission project by the California Independent System Operator (CAISO) in its 2021-2022 transmission plan and awarded to LSPGC in March 2023 through a competitive solicitation process. On November 12, 2024, almost six months after LSPGC filed its CPUC application with the CPUC, the California Independent System Operator (CAISO) Board of Governors approved a modified version of the Project.[1] On January 29, 2025, LSPGC filed a motion to amend the CPCN application based on the CAISO-approved changes. The CPUC's Administrative Law Judge approved the motion on February 19, 2025, and LSPGC filed an amended application on March 7, 2025. On April 4th, the CPUC deemed the amended application complete. The following Project description reflects the CAISO-approved changes.

The Project includes components that would be constructed and operated by LSPGC. These components consist of two high-voltage direct current (HVDC) terminals, a transmission line connecting the HVDC terminals, a transmission line connecting one of the HVDC terminals to the existing Pacific Gas and Electric Company (PG&E) Metcalf Substation, and an overhead transmission tie line connecting the other terminal to the existing PG&E San Jose B Substation.

Connecting the HVDC terminals to the existing PG&E Metcalf and San Jose B substations would require PG&E to modify the existing PG&E Metcalf Substation and expand and upgrade PG&E's existing San Jose B Substation.

The Project, for the purpose of this California Environmental Quality Act (CEQA) analysis, includes both LSPGC's Power Santa Clara Valley Project and the expansion and modifications to the PG&E substations. The CPUC will use the information in this CEQA document to inform its

[1] The original Project scope approved by CAISO, called "Metcalf-San Jose B HVDC Project", was initially designed to inject only 500 MW of power to the existing PG&E San Jose B Substation. The modified version (i.e., the Project) would inject 1,000 MW of power to the existing PG&E San Jose B Substation.

decision whether to approve LSPGC's application to construct and operate the LSPGC Power Santa Clara Valley Project only. The proposed modifications to the PG&E substations, though included in the PEA filed with LSPGC's application and analyzed in this CEQA document as part of the whole of the Project, are not part of the work submitted for authorization in LSPGC's application as PG&E and Silicon Valley Power (SVP) are not applicants. The PG&E work would be authorized or noticed separately pursuant to CPUC General Order 131-E, while LSPGC's work would be authorized pursuant to CPUC General Order 131-D.[2]

The following Project description is based on information provided in the application, the PEA, the CAISO 2021-2022 transmission plan and subsequent changes approved by the CAISO Governing Board, and other written clarifications provided by LSPGC in response to the CPUC data requests.

2.2 Project Objectives

The purpose of the Project is to ensure the reliability of the area's CAISO-controlled grid by strengthening the electrical grid in the San Francisco Bay Area. Project objectives as identified by LSPGC are as follows:

- Meet CAISO's reliability-driven need by addressing multiple near-, mid-, and long-term reliability issues in the existing San José area 115-kilovolt (kV) system.
- Meet the technical specifications set forth by CAISO for a voltage source converter HVDC link in the San José area located near or adjacent to the existing PG&E San Jose B Substation and PG&E Metcalf Substation. Adjacency to the existing PG&E San Jose B and Metcalf substations would reduce the length of the interconnection transmission lines, thereby reducing right-of-way (ROW) requirements and the potential for significant environmental impacts.
- Improve and maintain the reliability of the transmission grid by providing dynamic reactive power support and increase the deliverability of renewable power, by building and operating a facility that would help keep transmission voltages within specified parameters, reduce transmission losses, increase reactive margin for the system bus, increase transmission capacity, provide a higher transient stability limit, increase damping of minor disturbances, and provide greater voltage control and stability.
- Facilitate deliverability of energy from existing and proposed renewable generation projects to the Greater San Francisco Bay Area (Greater Bay Area) and corresponding progress toward achievement of California's Renewables Portfolio Standard goals in a timely and cost-effective manner by California utilities.
- Comply with and assist CAISO in meeting applicable Reliability Standards and Criteria developed by the North American Electric Reliability Corporation, Western Electricity Coordinating Council, and CAISO.

[2] LSPGC's application for a CPCN was initially filed and deemed complete in June 2024 when General Order (GO) 131-D was in effect, therefore, LSPGC's portion of the Power Santa Clara Valley Project will be permitted under GO 131-D. All filings after January 30, 2025, are subject to GO 131-E requirements, therefore, PG&E's portion of the Project will be permitted under GO 131-E. Because LSPGC's CPCN application includes components within and adjacent to PG&E property, on November 1, 2024, PG&E became a Party of the CPUC's Proceeding for LSPGC's CPCN application, following Rule 1.4 from the CPUC's Rules of Practice and Procedure.

The following additional objective is identified as influenced by CAISO's decision to update its 2021-2022 transmission plan, which included a modified version of the Project.

- Provide a suitable foundation for future grid upgrades expected to be needed to serve the long-term forecasted electricity load in the San José area, as identified by CAISO.

2.3 Project Location

The Project area is located in the city of San José and unincorporated Santa Clara County, California (see **Figure 2-1**, *Project Location*). The Project would connect two new HVDC terminals to each other via an underground alignment that would traverse approximately 13 miles in the northwest-to-southeast direction primarily along Monterey Road and would connect the new HVDC terminals to the existing PG&E substations, one located within the San José city limits and the other in unincorporated Santa Clara County. The proposed locations of each major Project component are described in Section 2.6, *Project Components*.

2.3.1 Skyline High-Voltage Direct Current Terminal

The proposed Skyline HVDC Terminal site currently consists of a highly disturbed, vacant, undeveloped lot, 10.6 acres in size (Assessor's Parcel Numbers [APNs] 259-23-020 and 259-23-024), that is located in the city of San José at the corner of Santa Teresa and Ryland streets, immediately south of the existing PG&E San Jose B Substation. The proposed Skyline HVDC Terminal site is within a former railyard from which the previous railyard facilities have been removed. This terminal site is zoned for Downtown Primary Commercial uses.

Surrounding land uses consist of the existing PG&E San Jose B Substation to the north, State Route (SR) 87 and planned development for residential and residential uses to the east, commercial uses to the south, and the Guadalupe River Park and Trail to the west. The proposed Skyline HVDC Terminal site is located in Township 7 South, Range 1 East, Mount Diablo Meridian in the Public Lands Survey System (PLSS).

2.3.2 Grove High-Voltage Direct Current Terminal

The proposed Grove HVDC Terminal site is located on a 13.6-acre property (APNs 725-14-008, 725-14-009, 725-14-014, and 725-14-015) and is in both the city of San José and unincorporated Santa Clara County, 0.2 mile west of U.S. Highway 101 (U.S. 101) and 0.65 mile southeast of the existing PG&E Metcalf Substation. Approximately 3.3 acres of the site, from Monterey Road east, are located within the San José city limits and zoned for Planned Development within an Agricultural Base District. The remaining 10.3 acres are located in unincorporated Santa Clara County and are zoned for Agricultural uses.

The proposed Grove HVDC Terminal site is currently used as an orchard and includes a perimeter fence, a well, a deteriorating outbuilding, and a radial electric distribution line currently sourced from the existing PG&E Edenvale Substation.

SOURCE: LS Power, 2024

Power Santa Clara Valley Project

Figure 2-1
Project Location

Surrounding land uses consist of office, industrial, and residential uses to the northwest; open space, Coyote Creek Parkway, and U.S. 101 to the northeast; a private lot consisting of disturbed land from a past orchard and a residential structure to the southeast; and Monterey Road and agricultural uses to the southwest. The proposed Grove HVDC Terminal site is in PLSS Township 8 South, Range 2 East.

The proposed Grove HVDC Terminal site is situated within the Coyote Valley, a 7,400-acre alluvial plain located between the Santa Cruz Mountains and the Diablo Range in southern Santa Clara County (City of San José 2024). The boundaries of the Coyote Valley are defined by the base of the Santa Cruz Mountains to the west, the base of the Diablo Range to the east, Metcalf Road in San José to the north, and the city of Morgan Hill to the south. Within the Coyote Valley is the Coyote Valley corridor, defined by the city of San José as a 2,415-acre, north-south running corridor along the Coyote Valley, and considered a critical link for wildlife migrating between the Santa Cruz Mountains and the Diablo Range (City of San José 2024).

2.3.3 Grove to Skyline 320 kV Direct Current Underground Transmission Line

The proposed Grove to Skyline 320 kV direct current (DC) Transmission Line (Grove to Skyline 320 kV Transmission Line) would be located completely underground, predominantly within existing public ROWs. The alignment of this proposed DC transmission line would connect the proposed Skyline HVDC Terminal to the proposed Grove HVDC Terminal, extending primarily along Bassett Street, Terraine Street, Devine Street, Market Street, First Street, and Monterey Road.

Surrounding land uses consist of residential, commercial, industrial (light and heavy), transit, open space, developed parks, convention center, and agriculture. The Grove to Skyline 320 kV DC underground transmission line would be located in PLSS Township 8 South, Range East; Township 8 South, Range 1 East; and Township 7 South, Range 1 East.

2.3.4 Metcalf to Grove 500 kV Alternating Current Underground Transmission Line

The proposed Metcalf to Grove 500 kV alternating current (AC) Transmission Line (Metcalf to Grove 500 kV Transmission Line) would be located within both the San José city limits and unincorporated Santa Clara County. Approximately 1 mile of the 1.2-mile Metcalf to Grove 500 kV Transmission Line would be located within Coyote Ranch Road and 0.2 mile would traverse undeveloped and natural areas on Santa Clara County land.

Surrounding land uses consist of agriculture and open space within the San José city limits and a regional park in Santa Clara County. The proposed Metcalf to Grove 500 kV Transmission Line would be located in PLSS Township 8 South, Range 2 East.

2.3.5 Skyline to San Jose B Overhead Transmission Tie Line

The proposed Skyline to San Jose B 230 kV AC Transmission Tie Line (Skyline to San Jose B 230 kV Transmission Tie Line) would be located within the proposed Skyline HVDC Terminal

and the expanded/modified San Jose B Substation. The zoning designations associated with the transmission tie line are Downtown Primary Commercial and Combined Industrial/Commercial.

Surrounding land uses consist of the existing PG&E San Jose B Substation to the north, SR 87 to the east, commercial uses to the south, and Guadalupe River Park and Trail to the west. The Skyline to San Jose B 230 kV Transmission Tie Line is located in PLSS Township 7 South, Range 1 East.

2.3.6 PG&E Metcalf and San Jose B Substations

The existing PG&E San Jose B Substation occupies 2.1 acres and is located in the city of San José at the intersection of Coleman Avenue and Santa Teresa Street. The existing PG&E Metcalf Substation occupies 47 acres and is located in unincorporated Santa Clara County, near the intersection of Metcalf Road and Monterey Road.

2.4 Existing System

2.4.1 Existing Utility System

The Project is sited within an existing regional transmission system that provides electricity to the Greater Bay Area. The system primarily serves five counties, including Santa Clara County. The Greater Bay Area can be classified into four subareas: East Bay, North Bay, South Bay, and San Francisco Peninsula. The Project area lies within the South Bay area.

The South Bay subarea, which includes Santa Clara County, covers 1,500 square miles and includes the De Anza and San José divisions and the city of Santa Clara. Generation facilities in this subarea include Calpine's Metcalf Energy Center, Calpine's Los Esteros Energy Center, Calpine's Gilroy Power Units, and Silicon Valley Power's Donald Von Raesfeld Power Plant. Among the existing substations in electrical proximity (with respect to the regional transmission system) to the Project are PG&E's San Jose A, FMC, El Patio, Markham, and Evergreen substations and the IBM Baily and Harry Road substations. The South Bay subarea also has key 500 kV and 230 kV interconnections to the Moss Landing and Tesla substations, respectively.

The San José/Silicon Valley Power area is generally served from the existing PG&E Newark 230/115 kV Substation and the existing PG&E Metcalf 500/230/115 kV Substation. The existing system in the Greater Bay Area also includes numerous existing PG&E overhead and underground electric transmission lines and distribution lines that serve the immediate area.

2.4.1.1 Transmission and Distribution Lines

Numerous PG&E overhead and underground electric transmission lines and distribution lines serve the immediate vicinity of the Project area. One radial PG&E distribution line is located on the site of the proposed Grove HVDC Terminal and four PG&E underground distribution lines are located beneath the site of the proposed Skyline HVDC Terminal.

Among the existing transmission lines in the Project vicinity are the following:

- Approximately one 500 kV, three 230 kV, and five 115 kV transmission lines.
- A 115 kV underground transmission line along Monterey Road from the Hummingbird Battery Storage to the PG&E Metcalf Substation.
- A 60 kV transmission line, both overhead and underground, from Capitol Expressway to Umbarger Road.
- A 115 kV transmission line, both overhead and underground, from Umbarger Road to Phelan Avenue.

Numerous existing distribution lines, all owned by PG&E, traverse the Project vicinity. These distribution lines generally extend from the following existing PG&E substations: San Jose A, San Jose B, Stone, Evergreen, Piercy, and Edenvale. The voltages of existing distribution and transmission lines in the Project area include 12 kV, 21 kV, 60 kV, 115 kV, 230 kV, and 500 kV. **Figure 2-2**, *Transmission System of Power Santa Clara Valley Project*, shows the transmission system in the Project vicinity.

2.4.1.2 PG&E Substations

Two 115 kV lines connect the existing PG&E Metcalf and San Jose B substations, and each line has intermediate connections at other substations. One 115 kV line has intermediate connections at both the PG&E San Jose A and El Patio substations, with tapped connections to the IBM Harry Road and Baily substations. The other 115 kV line has an intermediate connection at the PG&E Evergreen Substation with a tapped connection to the PG&E Markham, Catalyst, and Stone substations.

San Jose B Substation

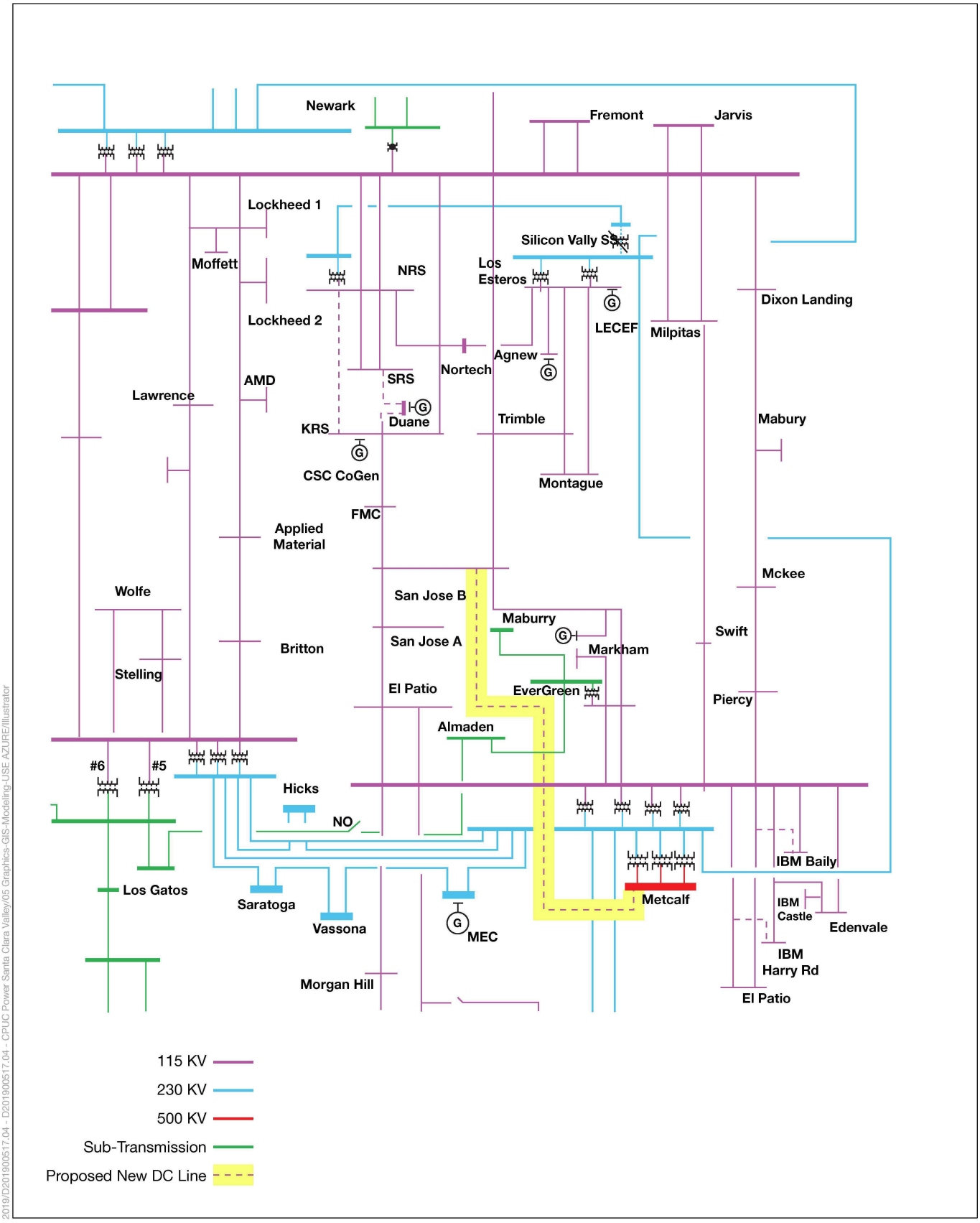
The existing PG&E San Jose B Substation is a 115 kV transmission substation that is connected to four 115 kV transmission lines and 17 distribution lines. The existing substation facility occupies an area of 2.1 acres.

Existing facilities at the existing PG&E San Jose B Substation range in height up to approximately 105 feet above grade. For security reasons, specific substation components and other detailed information on the location are not provided here.

Metcalf Substation

The existing PG&E Metcalf Substation is a 500/230/115 kV transmission substation that is connected to two 500 kV, eight 230 kV, and 11 115 kV transmission lines. The operating substation facility occupies an area of 47 acres. An additional 11 acres on the substation site parcel are used for material storage and as an operation and maintenance support facility.

Existing facilities at the existing PG&E Metcalf Substation range in height up to approximately 130 feet above grade. For security reasons, specific substation components and other detailed information on the location are not provided here.



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SOURCE: City of San Jose, Santa Clara County

Power Santa Clara Valley Project

Figure 2-2
Transmission System of Power Santa Clara Valley Project

2.5 Project Overview

The Project was approved by the CAISO with the objective of ensuring the reliability of the CAISO-controlled grid. This objective would be accomplished by constructing two new HVDC terminals, new transmission lines, and modifications to PG&E's Metcalf Substation and expanding and modifying PG&E's San Jose B Substation. The Project is being proposed by LSPGC, a Delaware limited liability company established to own and operate transmission projects in California as a designated California public utility.

Figure 2-1 shows the locations of the Project's major components. These major components are introduced in Sections 2.5.1 through 2.5.4 and described in greater detail in Sections 2.6.1 through 2.6.6. The Project area is illustrated in **Figures 2-3a** through **2-3d**, *Project Transmission Alignment*, and described at length in Section 2.6. LSPGC's scope of work for the Project is demonstrated on **Figure 2-4a**, *LSPGC Scope of Work*.

2.5.1 New High-Voltage Direct Current Terminals

The Project would construct two new HVDC terminals:

- Skyline HVDC Terminal, at the corner of Santa Teresa and Ryland streets in San José, immediately south of the existing PG&E San Jose B Substation.
- Grove HVDC Terminal, about 0.2 mile west of U.S. 101 and 0.65 mile southeast of the existing PG&E Metcalf Substation.

2.5.2 New Transmission Lines

The Project would include approximately 14.2 miles of both overhead and underground transmission lines, specifically:

- Grove to Skyline 320 kV Transmission Line (13 miles, underground).
- Metcalf to Grove 500 kV Transmission Line (1.2 miles, underground).
- Skyline to San Jose B 230 kV AC Transmission Tie Line (100 feet, overhead).

2.5.3 Modifications to Existing PG&E Substations

To accommodate the new HVDC terminals and new transmission lines, PG&E would conduct modifications at both the existing PG&E Metcalf and San Jose B substations and would expand and modify the existing PG&E San Jose B Substation. Modifications to existing substations are described further in Section 2.6.3, *Existing PG&E Substations*. PG&E's scope of work for the Project is demonstrated on **Figure 2-4b***, PG&E Scope of Work – PG&E San Jose B Substation*, and **Figure 2-4c***, PG&E Scope of Work – PG&E Metcalf Substation*.

2.5.4 Ancillary Facilities

The Project would include road and trail improvements and utility relocations. These ancillary facilities are described further in Section 2.6.4, *Ancillary Facilities*.

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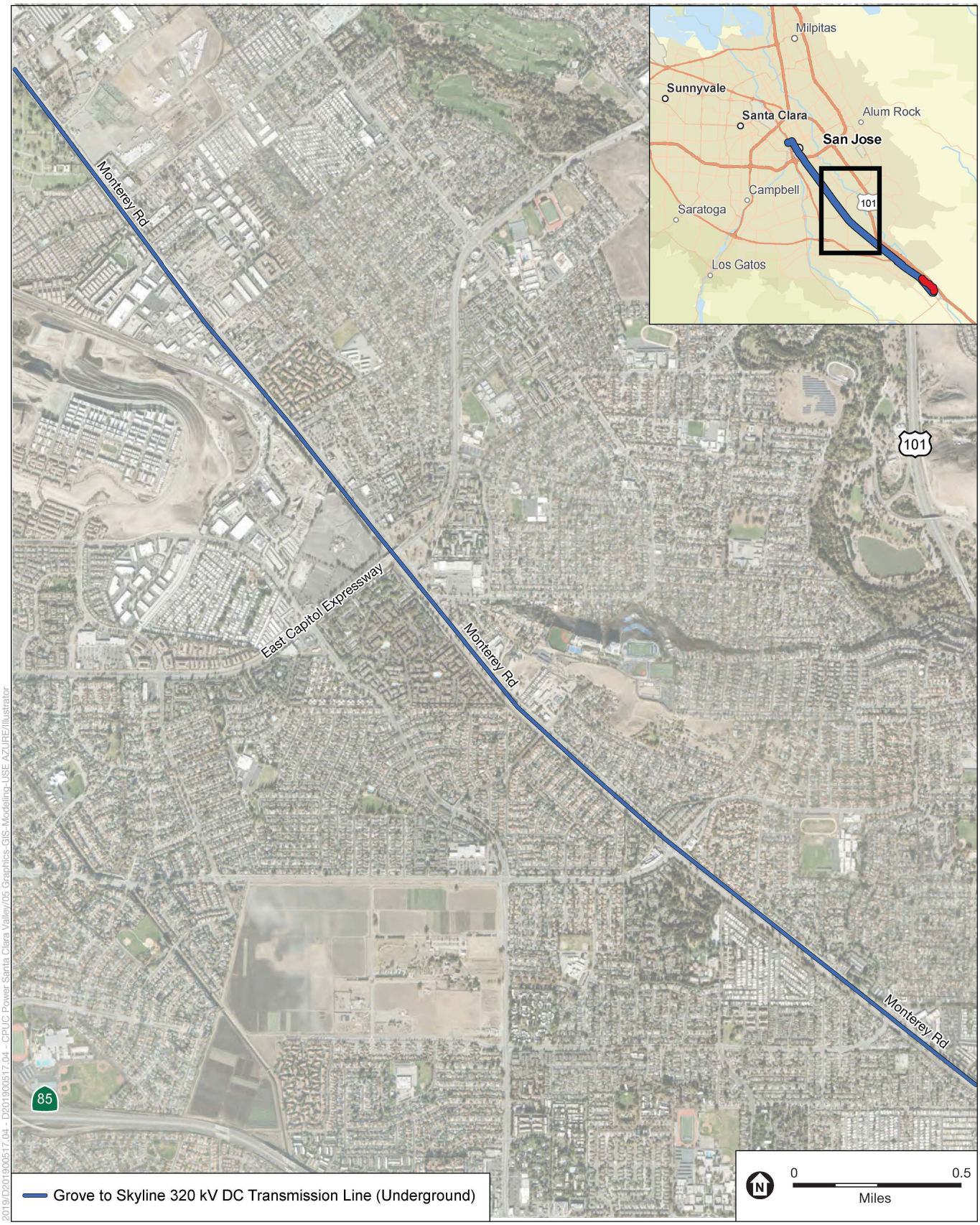
SOURCE: LS Power, 2024

Power Santa Clara Valley Project

Figure 2-3a
Project Transmission Alignment



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SOURCE: LS Power, 2024

Power Santa Clara Valley Project

Figure 2-3b
Project Transmission Alignment

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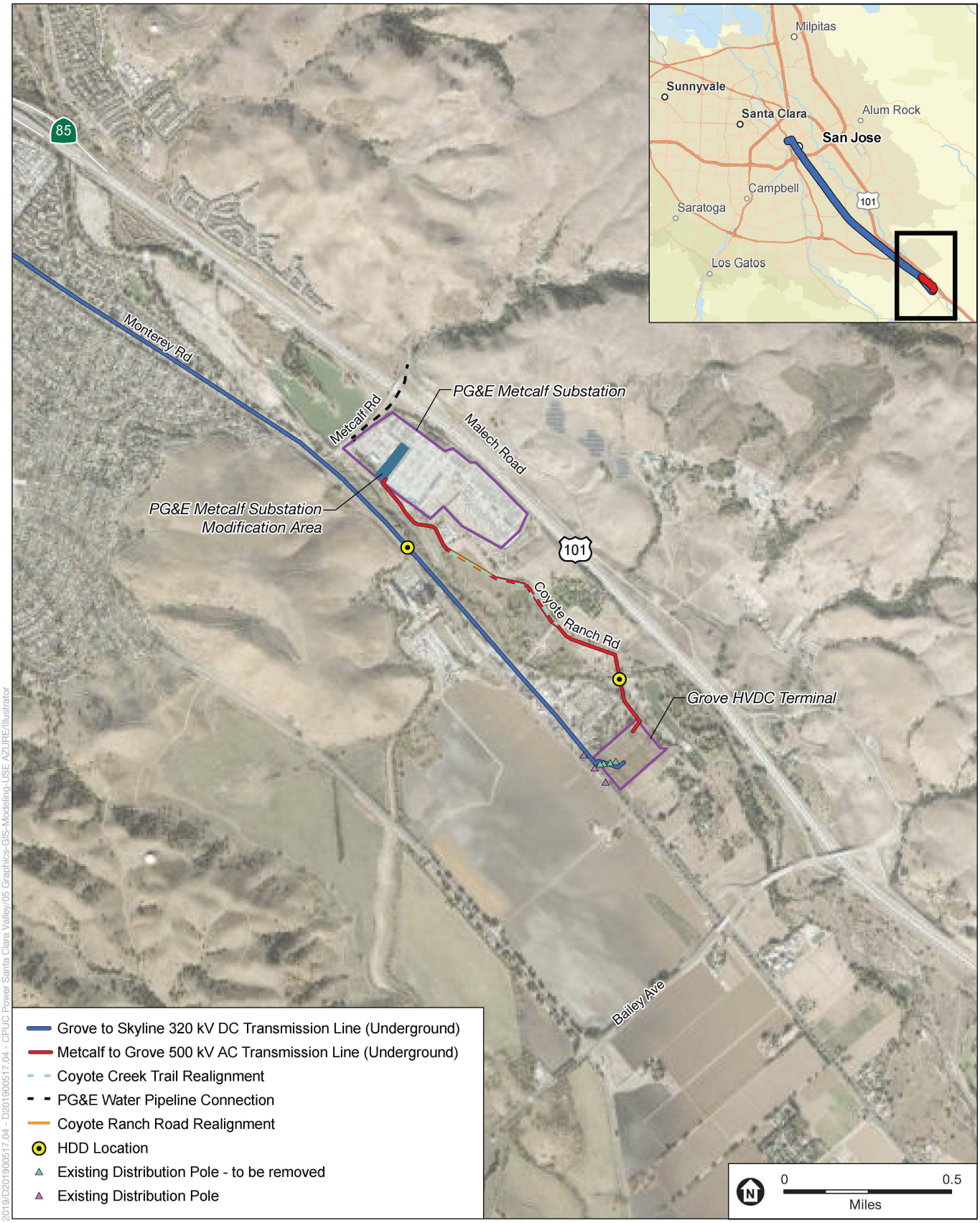
SOURCE: LS Power, 2024

Power Santa Clara Valley Project

Figure 2-3c
Project Transmission Alignment



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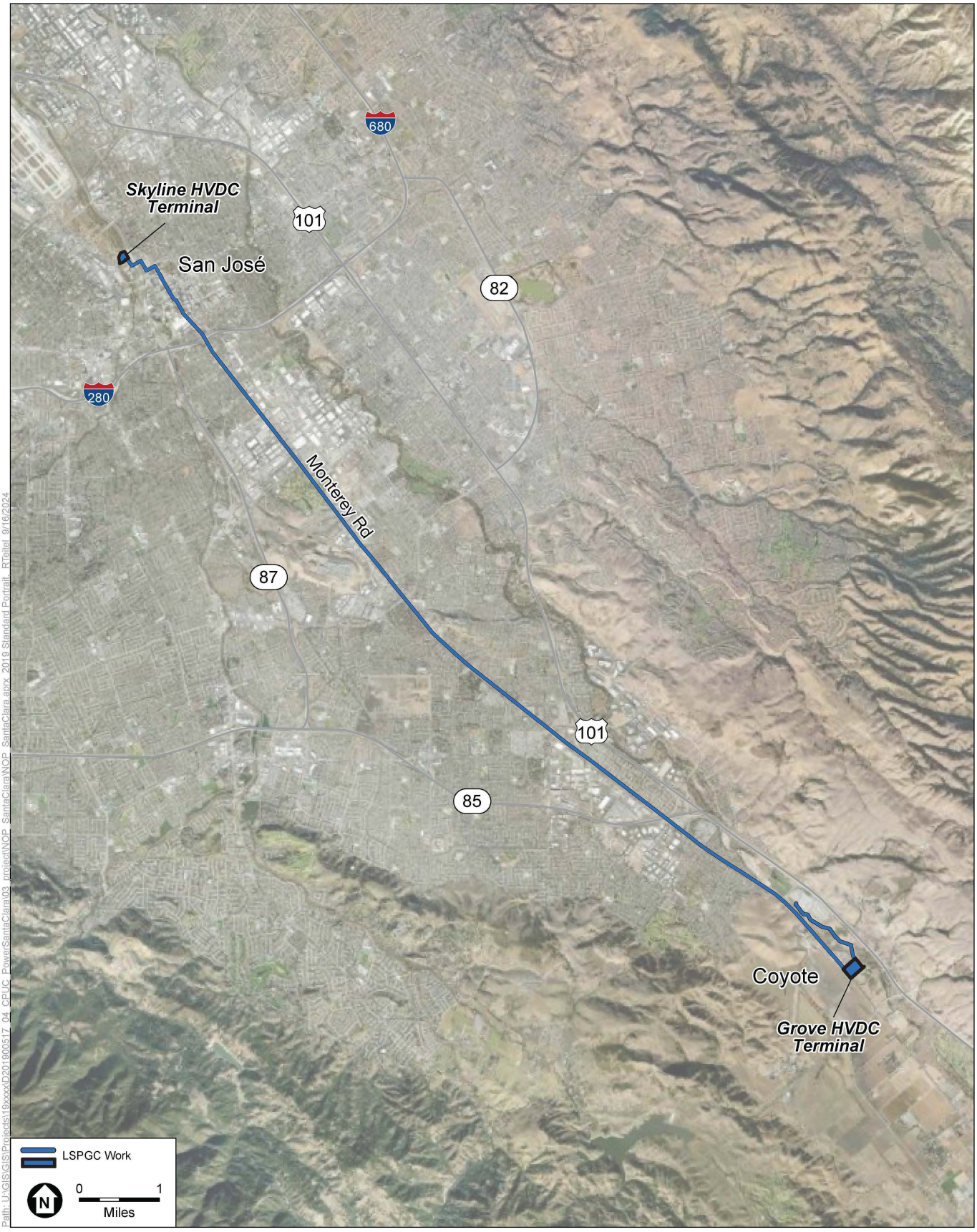
SOURCE: LS Power, 2024

Power Santa Clara Valley Project

Figure 2-3d
Project Transmission Alignment



SOURCE: LS Power, 2024

Power Santa Clara Valley Project

Figure 2-4a
LSPGC Scope of Work

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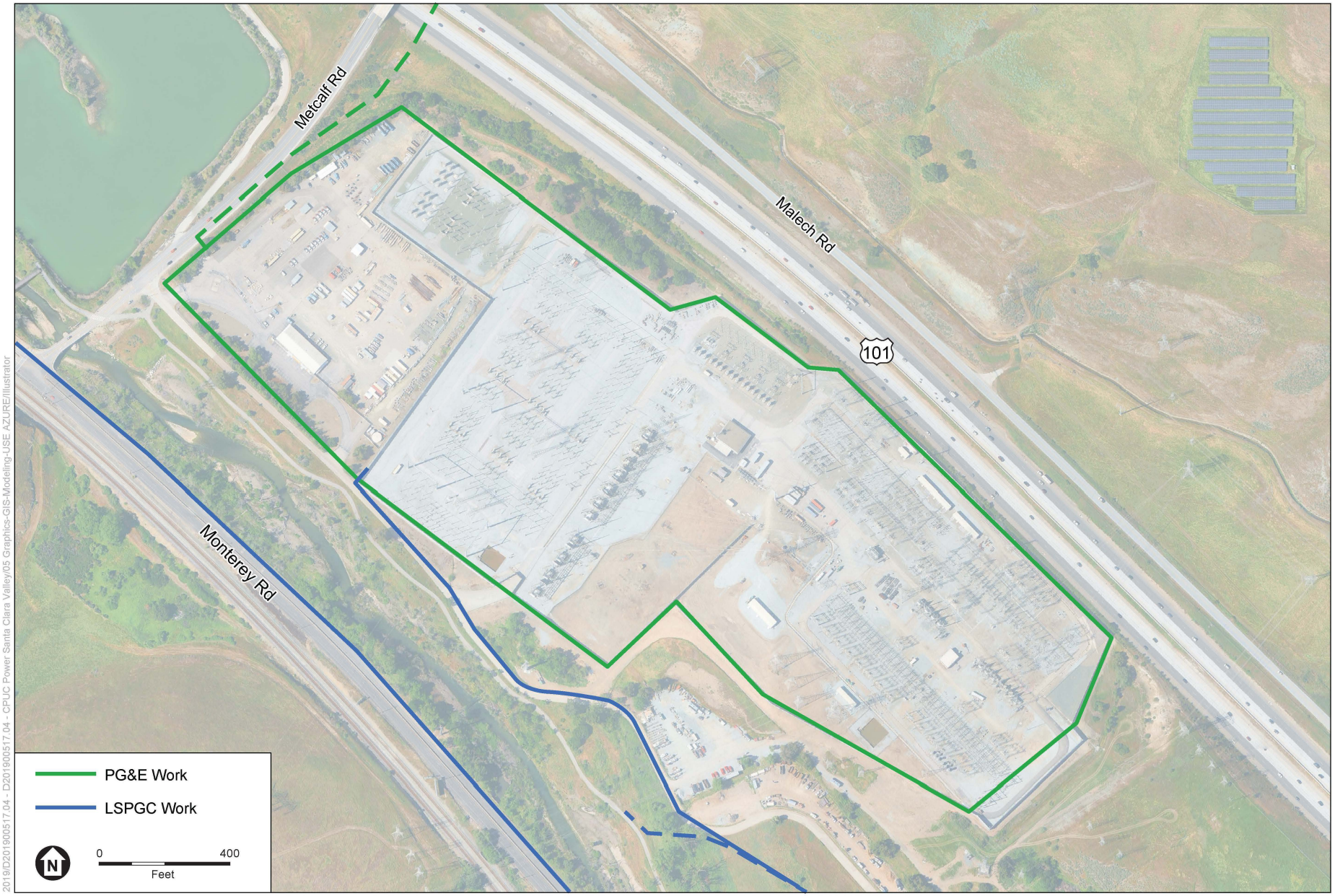
SOURCE: LSPGC, 2023

Power Santa Clara Valley Project

Figure 2-4b
PG&E Scope of Work - PG&E San Jose B Substation



SOURCE: LSPGC, 2023

Power Santa Clara Valley Project

Figure 2-4c
PG&E Scope of Work - PG&E Metcalf Substation

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2.6 Project Components

The Project includes the construction and operation of two new HVDC terminals, two new underground transmission lines, one overhead transmission tie line, modifications at the existing PG&E Metcalf Substation, and expansion and modifications at the existing PG&E San Jose B Substation. The Project's primary components and their approximate permanent footprints and transmission line lengths are as follows:

- Skyline HVDC Terminal (5.5 acres).
- Grove HVDC Terminal (7.4 acres).
- Grove to Skyline 320 kV Transmission Line (13 miles).
- Metcalf to Grove 500 kV Transmission Line (1.2 miles).
- Skyline to San Jose B 230 kV Transmission Tie Line (100 feet).
- Modifications to the existing PG&E Metcalf Substation (2.7 acres).
- Expansion and modifications at the existing PG&E San Jose B Substation (3.3 acres).

2.6.1 New High-Voltage Direct Current Terminals

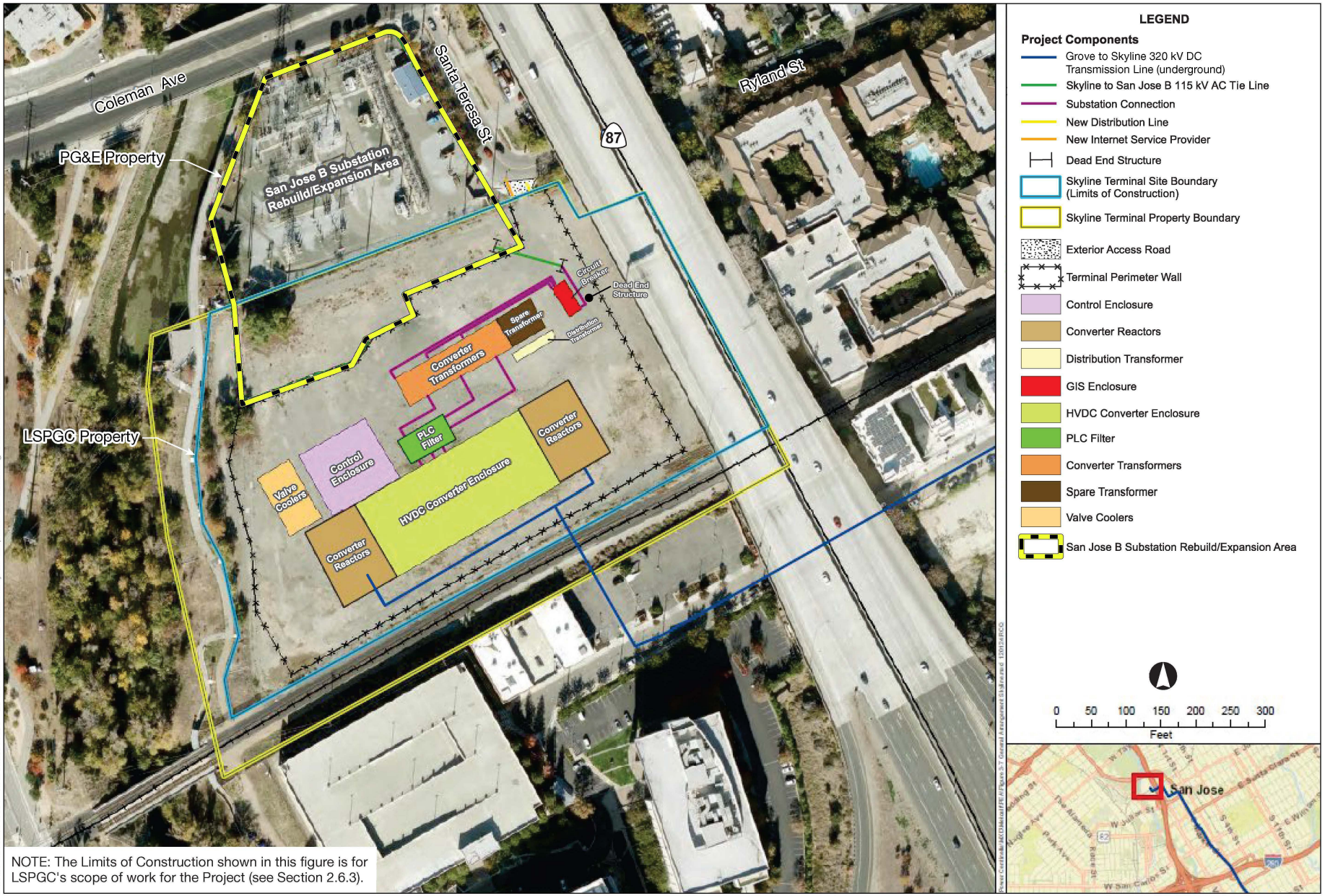
The primary function of the proposed Skyline and Grove HVDC Terminals would be to convert AC[3] power to DC[4] power at the sending terminal and to convert DC power back to AC power at the receiving terminal. To facilitate this conversion, each new HVDC terminal would include voltage source converter HVDC equipment, three single-phase converter transformers including space for an on-site spare, and an AC circuit breaker.

Both terminals would include disconnect switches, current transformers, voltage transformers, termination/riser structures, and associated bus work. Both terminals would also include aboveground facilities supported by a combination of deep, reinforced drilled shaft foundations, slab foundations with spread footings, and piles.

The proposed HVDC terminal facilities are designed to meet Project-specific requirements and specifications. **Figure 2-5**, *Skyline HVDC Terminal*, and **Figure 2-6**, *Grove HVDC Terminal*, show the proposed general layout and arrangement of major HVDC terminal equipment. Site-specific details for the proposed Skyline and Grove HVDC Terminals and ancillary terminal components are provided below. The expected usable life of each terminal is expected to exceed 40 years.

[3] *Alternating current* (AC) is an electric current that periodically reverses direction and is used to transmit electricity to homes and business through power lines.

[4] In *direct current* (DC), electrons flow steadily in one direction, often generated by batteries, solar cells, or AC/DC converters, and is the preferred power source for electronic devices.



NOTE: The Limits of Construction shown in this figure is for LSPGC's scope of work for the Project (see Section 2.6.3).

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SOURCE: LSPGC, 2023

Power Santa Clara Valley Project

Figure 2-5
Skyline HVDC Terminal

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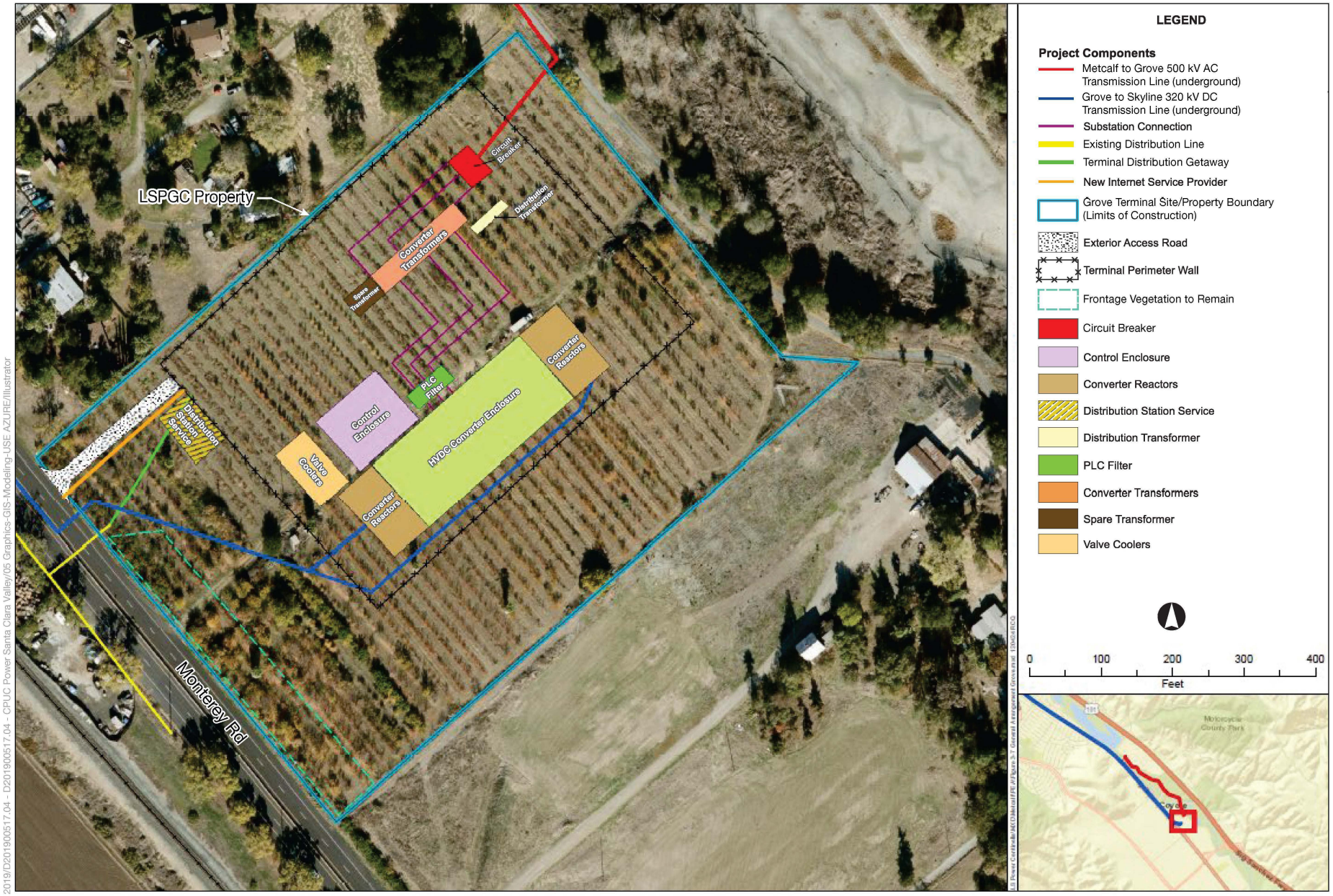

SOURCE: LSPGC, 2023

Power Santa Clara Valley Project

Figure 2-6
Grove HVDC Terminal

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2.6.1.1 Components of the Proposed Skyline and Grove HVDC Terminals

This section further discusses components that would be constructed at both the proposed Skyline and Grove HVDC Terminals. **Figure 2-7**, *HVDC Terminal Site Profile Drawings*, provides a vertical depiction of the HVDC terminal facilities and includes the heights of various pieces of terminal equipment. The voltage source converter HVDC equipment would be located within an enclosure designed to protect the equipment from environmental and physical threats. Protective relaying and control equipment and a supervisory control and data acquisition[5] (SCADA) system would also be housed within the equipment enclosure. All major HVDC terminal equipment (e.g., voltage source converter HVDC equipment, converter transformers, cooling equipment) would be installed on concrete foundations. The HVDC terminals would also include 100-foot-tall lightning shielding masts that would be the tallest structures at each terminal site.

The proposed HVDC terminals would be powered primarily by a converter transformer at each terminal to step down the energy from the transmission voltage level to the distribution voltage level. An electric distribution line would also be installed to provide backup power for each terminal. The Project proposes 500/320 kV transformers at the proposed Grove HVDC Terminal and 320/115 kV transformers at the proposed Skyline HVDC Terminal.[6] In addition, specifically for the proposed Grove HVDC Terminal, a storage pad would be constructed for outdoor equipment and space would be reserved for future multi-terminal expansion.

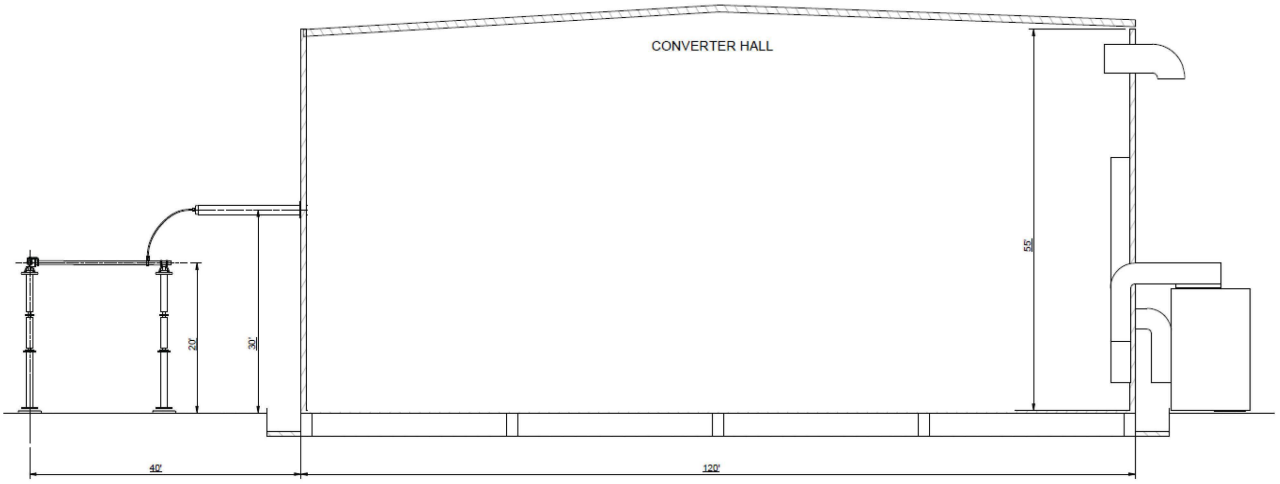
Each transformer would have an oil containment system consisting of an impervious, lined, open, or stone-filled sump area around the transformer. Each proposed HVDC terminal site would require a maximum of approximately 25,000 gallons of oil for each of the three energized transformers and the on-site spare, for a total of 100,000 gallons per terminal site for transformers. Each transformer oil containment basin would be designed to contain the oil volume of each transformer plus a 25-year, 24-hour storm event.

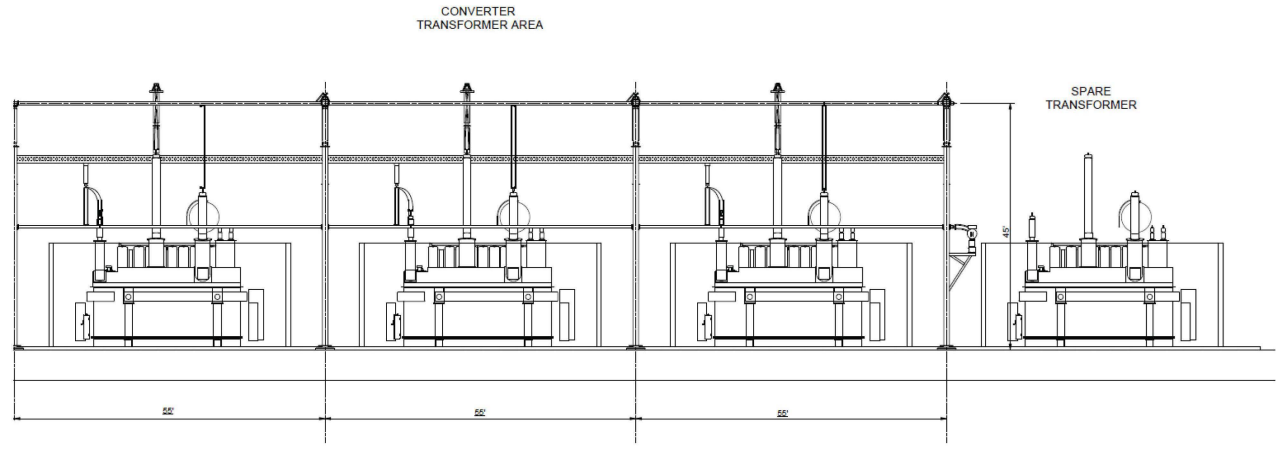
Equipment and enclosures at the proposed HVDC terminal sites would be nonreflective, as practicable, with neutral gray or earth-tone colors. Enclosure roofs would typically be white. The white finish is designed to reflect sunlight to be more environmentally friendly and reduce temperatures. A low-gloss finish would be selected as available to avoid glare.

The proposed HVDC terminal facilities would also include a stormwater management system consisting of a drainage and conveyance system and a stormwater detention system. The size of the detention system would vary for each proposed HVDC terminal site, depending on site-specific conditions, and may include a detention basin, underground detention vaults, or a combination thereof. The proposed HVDC terminal pads would be graded to drain toward the stormwater conveyance system to ultimately direct stormwater into the detention system. The stormwater detention system would not be lined, which would allow for infiltration and groundwater recharge.

5 *Supervisory control and data acquisition*, or SCADA, systems are used for controlling, monitoring, and analyzing industrial devices and processes, consisting of both software and hardware components. SCADA enables remote and on-site gathering of data from the industrial equipment.

6 The final converter voltage would be confirmed during detailed design.





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SOURCE: LSPGC, 2023

Power Santa Clara Valley Project

Figure 2-7
HVDC Terminal Site Profile Drawings

Lighting would be installed at both proposed HVDC terminals and would conform to National Electric Safety Code requirements and other applicable outdoor lighting codes. The Grove HVDC Terminal facilities would not be likely to require consistent nighttime illumination, but the proposed Skyline HVDC Terminal facilities would require such illumination (e.g., security purposes). Lighting would be photocell and motion controlled to provide as-needed illumination for security. Light-emitting diode (LED) lights would be mounted on A-frames, H-frames, structures, poles, and enclosures as required. All lighting provided would be shielded and pointed down to minimize glare onto surrounding properties and habitats.

All HVDC terminal components, including the associated access roads and stormwater drainage and conveyance system, would occur within the two terminal sites owned by LSPGC (within 10.6- and 13.6-acre sites for the proposed Skyline and Grove HVDC Terminals, respectively).

2.6.2 New Transmission Lines

The Project would construct approximately 13 miles of new underground transmission lines[7] to connect the new HVDC terminals, 1.2 miles of new underground transmission line to connect the proposed Grove HVDC Terminal to the existing PG&E Metcalf Substation, and 100 feet of new overhead transmission tie line to connect the proposed Skyline HVDC Terminal to the existing PG&E San Jose B Substation. **Table 2-1**, *Proposed Transmission Line Lengths*, shows the lengths of the transmission line segments. The transmission lines would also include installation of termination/riser structures, as described further below.

TABLE 2-1
PROPOSED TRANSMISSION LINE LENGTHS

Segment Type	Segment Length
Grove to Skyline 320 kV DC Transmission Line	
Underground	13 miles
Metcalf to Grove 500 kV AC Transmission Line	
Underground	1.2 miles
Skyline to San Jose B 230 kV AC Transmission Tie Line	
Overhead	100 feet
Total—Aboveground Segments	**100 feet**
Total—Underground Segments	**14.2 miles**
Total (approximate)	**14.2 miles**

NOTES: AC = alternating current; DC = direct current; kV = kilovolt
SOURCE: LSPGC 2025

[7] Should any conflicts between the Project and existing transmission or distribution lines be discovered during final engineering of the transmission line alignments, LSPGC would work with the owner of those utilities to determine whether design changes can be made or whether utility relocation is necessary.

2.6.2.1 Proposed Grove to Skyline 320 kV Direct Current Transmission Line

A new 320 kV DC underground transmission line (Grove to Skyline 320 kV Transmission Line) would be constructed to connect the new Skyline HVDC Terminal to the new Grove HVDC Terminal (see Figure 2-1 and Figures 2-3a through 2-3d). As discussed above, the approximately 13-mile-long proposed Grove to Skyline 320 kV Transmission Line would extend primarily along the following roads: Bassett Street, Terraine Street, Devine Street, Market Street, First Street, and Monterey Road. The proposed Grove to Skyline 320 kV Transmission Line would be rated at 1,000 megawatts.

The proposed Grove to Skyline 320 kV Transmission Line would be encased in a 36-inch casing pipe proposed to have five smaller internal ducts: three 8-inch ducts for conductor (two ducts for the installed cross-linked polyethylene [XLPE] cable and one duct as a spare) and two 2-inch ducts for fiber optic cables. The duct banks would be 2.5 feet wide and 2.5 feet tall, with a minimum of 3 feet of cover from the ground surface to the top of duct bank.

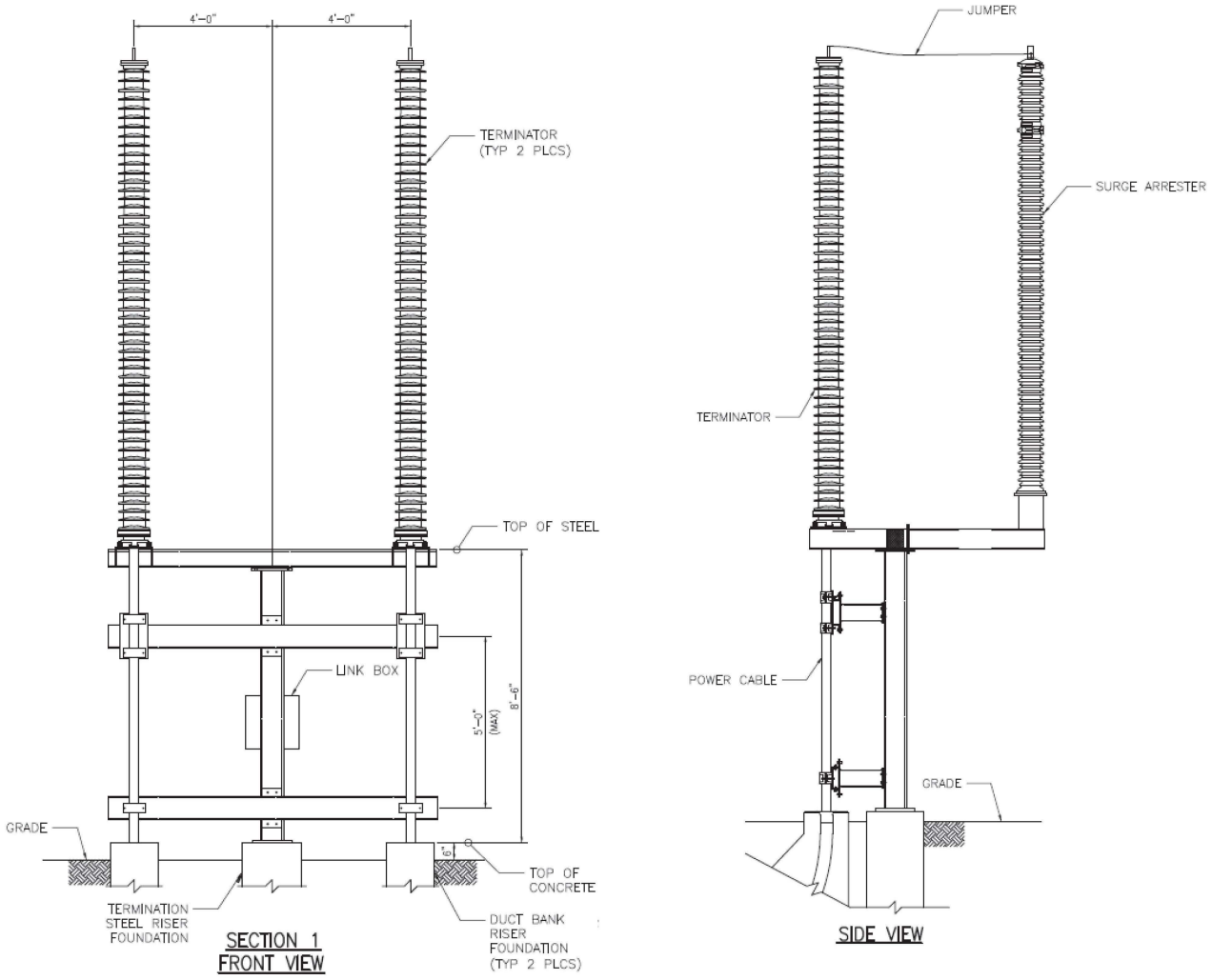
New underground splice vaults for the proposed Grove to Skyline 320 kV Transmission Line would be located every 1,500–3,000 feet along the length of the transmission line, with dimensions of approximately 32 feet long, 10 feet wide, and 10 feet deep. The proposed Grove to Skyline 320 kV Transmission Line would require 40 splice vaults, each having two manhole covers with diameters of approximately 39 inches. **Table 2-2**, *Proposed Duct Banks and Splice Vaults*, presents information regarding the Project's duct banks and splice vaults. Section 2.8.5, *Belowground Transmission Line Construction*, discusses construction techniques for the Project's duct bank and splice vault installations.

TABLE 2-2
PROPOSED DUCT BANKS AND SPLICE VAULTS

Transmission Line	Number of Duct Banks	Duct Bank Dimensions	Number of Splice Vaults	Splice Vault Dimensions	Splice Vault Range
Grove to Skyline 320 kV DC Transmission Line	5 (three 8-inch and two 2-inch ducts)	2.5 feet wide and 2.5 feet tall with a minimum of 3 feet of cover	40	32 feet long, 10 feet wide, and 10 feet tall	Every 1,500–3,000 feet
Metcalf to Grove 500 kV AC Transmission Line	7 (four 8-inch and three 2-inch ducts)		5	40 feet long, 10 feet wide, and 10 feet tall	

NOTES: Dimensions shown in this table are approximate and subject to change pending final design.
AC = alternating current; DC = direct current; kV = kilovolt
The Skyline to San Jose B 230 kV AC transmission tie line would not require duct banks or splice vaults.
SOURCE: LSPGC 2025

The proposed Grove to Skyline 320 kV Transmission Line would enter the proposed HVDC terminals underground and would transition above ground at a steel substation termination/riser structure. The new termination/riser structure would be within the proposed Skyline HVDC Terminal and would be approximately 25 feet tall. **Figure 2-8**, *Typical 320 kV DC Termination/Riser Structures,* provides details and metrics for the 320 kV DC termination/riser structures.



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SOURCE: LSPGC, 2023

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Figure 2-8
Typical 320 kV DC Termination/Riser Structures

2.6.2.2 Proposed Metcalf to Grove 500 kV Alternating Current Transmission Line

A new 500 kV AC underground transmission line (Metcalf to Grove 500 kV Transmission Line) would be constructed to connect the new Grove HVDC Terminal to the existing PG&E Metcalf Substation (see Figure 2-1 and Figure 2-3d). The proposed 1.2-mile-long Metcalf to Grove 500 kV Transmission Line would be located within Coyote Ranch Road and would also traverse undeveloped and natural areas on Santa Clara County land.

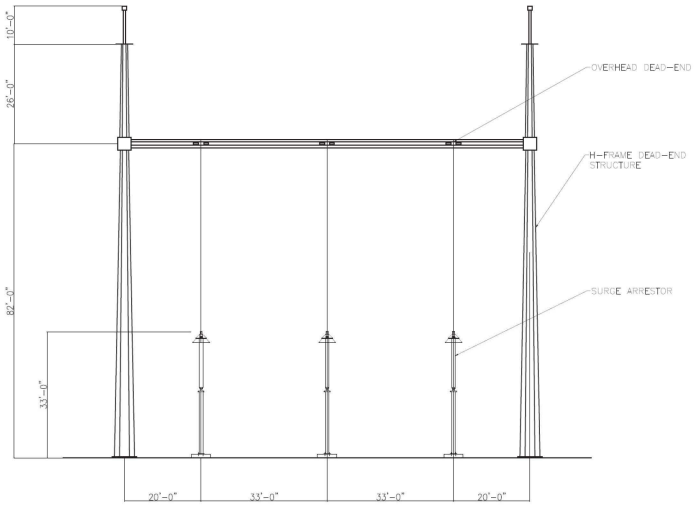
The proposed Metcalf to Grove 500 kV Transmission Line would be encased within a new duct bank proposed to have seven smaller internal ducts: four 8-inch ducts for the conductor (three ducts for the installed XLPE cable and one duct as a spare) and three 2-inch ducts (two for fiber optic cables and one for a ground wire). The duct banks would be 2.5 feet wide and 2.5 feet tall, with a minimum of 3 feet of cover from the ground surface to the top of each duct bank.

Underground splice vaults would be located every 1,500–3,000 feet with dimensions of approximately 40 feet long, 10 feet wide, and 10 feet deep. The proposed Metcalf to Grove 500 kV Transmission Line would require five splice vaults. Each vault would have two manhole covers with diameters of approximately 39 inches. Table 2-2 above presents information regarding the Project's duct banks and splice vaults. Section 2.8.5, *Belowground Transmission Line Construction*, discusses construction techniques for the Project's duct bank and splice vault installations.

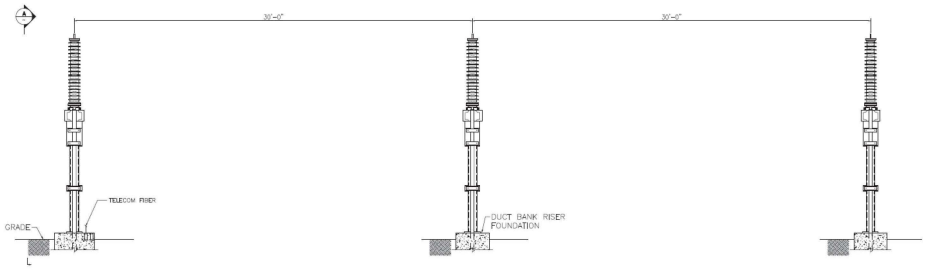
The proposed Metcalf to Grove 500 kV Transmission Line would enter the existing PG&E Metcalf Substation underground and would transition above ground at a steel substation termination/riser structure. The new 500 kV AC termination/riser structures would be 30 feet tall and would have a drilled pier foundation. The termination/riser structures would transition the cable to a substation dead-end structure that would be 120 feet tall and would have a drilled pier foundation. **Figure 2-9**, *Typical 500 kV AC Termination/Riser Structures*, provides details and metrics for the 500 kV AC termination/riser structures.

2.6.2.3 Proposed Skyline to San Jose B 230 kV Alternating Current Transmission Tie Line

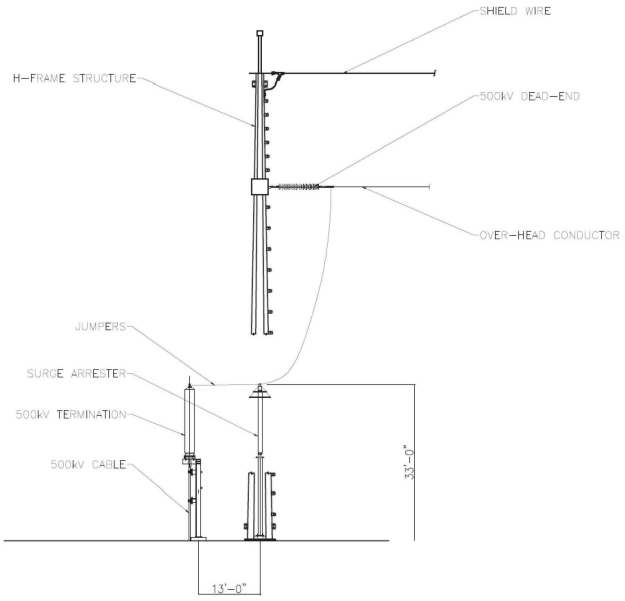
A new Skyline to San Jose B 230 kV AC overhead transmission tie line (Skyline to San Jose B Transmission Tie Line) would be constructed to connect the new Skyline HVDC Terminal to the rebuilt and expanded PG&E San Jose B Substation. The proposed Skyline to San Jose B Transmission Tie Line would be a 100-foot-long, single-circuit, overhead segment that would attach the proposed Skyline HVDC Terminal to the adjacent substation. The proposed Skyline to San Jose B Transmission Tie Line would require structures up to 60 feet tall, which would include steel H-frames (i.e., dead-end structures) or similar termination structures with reinforced concrete drilled shaft or pile foundations. See Figure 2-5 for the location of the proposed Skyline to San Jose B Transmission Tie Line.



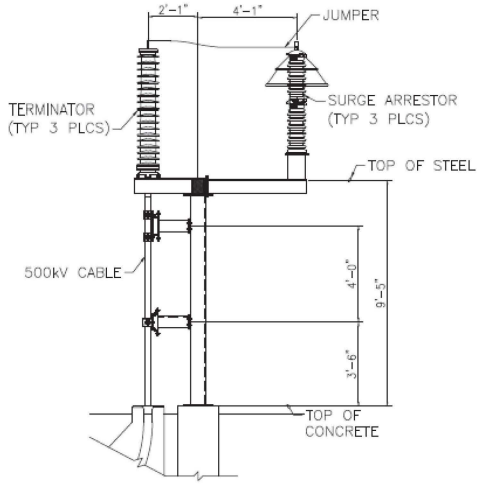
ELEVATION VIEW



ELEVATION VIEW
CALE TERMINATION STAND



SIDE VIEW



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SOURCE: LSPGC, 2023

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Figure 2-9
Typical 500 kV AC Termination/Riser Structures

ESA

2.6.3 Existing PG&E Substations

2.6.3.1 Existing PG&E San Jose B Substation

At the existing PG&E San Jose B Substation, the existing facilities would be rebuilt and expanded. The substation would be expanded to include a new 230 kV switchyard, a new 230/115 kV transformer, and a rebuilt 115 kV switchyard to allow the interconnection of the proposed Skyline to San Jose B Transmission Tie Line. Because the existing PG&E San Jose B Substation presently has a 115 kV straight bus configuration with four existing transmission line connections and lacks space for the new 230/115 kV transformer connection, the existing 115 kV substation would be expanded to create a bay position for the new 230/115 kV transformer connection. The following substation modifications would occur:

- The existing air-insulated 115 kV switchyard would be removed.
- The substation's existing switchyard would be converted to a 115 kV gas-insulated switchgear (GIS) design in a breaker-and-a-half (BAAH)[8] configuration. The rebuilt switchyard would include five new BAAH bays, with the capability for expansion to seven BAAH bays, with a new GIS enclosure measuring approximately 170 feet long by 85 feet wide by 31 feet tall. (New GIS equipment and controls required to monitor and protect the electrical equipment would be located within a new enclosure that would be located on the proposed Skyline HVDC Terminal site.)
- A new 230 kV sulfur hexafluoride[9] GIS switchyard, in a BAAH configuration, would be added. The new switchyard would include one new BAAH bay with the capability for expansion to four BAAH bays, with a new GIS enclosure that would measure approximately 170 feet long by 85 feet wide by 31 feet tall. (New GIS equipment and controls required to monitor and protect the electrical equipment would be located within a new enclosure that would be located on the proposed Skyline HVDC Terminal site.)
- A new 230/115 kV transformer would be added.
- Existing transmission and distribution line connections would be adjusted. These changes are anticipated to affect the line between the substation dead-ends and the first off-site structure(s).
- Modifications would be made to bus work, disconnect switches, circuit breakers, steel support structures, and communication systems.
- Typical substation equipment would be installed, including structural yard steel, bus work/fittings, conduits, and grounding as well as underground 115 kV and 230 kV cable.
- The existing and new fences would be modified or installed in accordance with PG&E's substation standards and security requirements.
- The existing Spill Prevention, Control, and Countermeasures pond would be upgraded and expanded to account for the PG&E San Jose B Substation expansion.

8 A *breaker-and-a-half configuration* connects two main buses with three circuit breakers, transformers, or line elements; thus, there are one-and-a-half circuit breakers per circuit. Configuration advantages include more convenient, more economical, and more highly reliable circuit breaker maintenance, and bus fault protection.

9 *Sulfur hexafluoride* is a commonly used gas compound for high-voltage equipment due to its unique dielectric properties which assist in voltage electrical insulation, current interruption, and arc quenching in the transmission and distribution of electricity.

New facilities for expansion of the existing PG&E San Jose B Substation would range in height up to 95 feet above grade. The new substation facilities would generally be gray and nonreflective. New lighting would be installed in accordance with standards and would be determined during detailed design. Specifically, outdoor lighting additions would comply with IEEE C2 to provide 2-foot-candle intensity, and LED lighting would be used to meet the latest energy efficiency recommendations in California Title 24. The substation rebuilding area and Skyline to San Jose B transmission tie line to the proposed Skyline HVDC Terminal are shown in Figure 2-3a.

As shown in Figure 2-4b, LSPGC's scope for the proposed Skyline to San Jose B Transmission Tie Line between the proposed Skyline HVDC Terminal and the existing PG&E San Jose B Substation is proposed to stop at an H-frame (dead-end) or similar termination structure. This termination structure would be located adjacent to the new GIS enclosure at the existing PG&E San Jose B Substation within the substation expansion area, outside of the existing fence line.

2.6.3.2 Existing PG&E Metcalf Substation

Facilities at the existing PG&E Metcalf Substation would be modified to allow the interconnection of the proposed Metcalf to Grove 500 kV Transmission Line. Modifications at the existing PG&E Metcalf Substation would include the following:

- A new 500 kV bay with two new 500 kV circuit breakers.
- Five new 500 kV breaker disconnect switches.
- One new 500 kV line disconnect switch.
- Three new 500 kV line capacitor-coupled voltage transformers.
- Two new dead-end structures, and ancillary substation equipment, including bus work, conduits, grounding, and communication systems.

Additionally, the existing substation's security wall would be extended or relocated approximately 100 feet to the north on existing substation property.

New facilities for the expansion of the PG&E Metcalf Substation would range in height up to 105 feet above grade. New substation facilities would generally be gray and nonreflective. New lighting would be installed in accordance with standards and would be determined during detailed design. Specifically, outdoor lighting additions would comply with IEEE C2 to provide 2-foot-candle intensity, and LED lighting would be used to meet the latest energy efficiency recommendations in California Title 24. The modification area for the existing PG&E Metcalf Substation is shown in Figure 2-3d.

LSPGC's scope for the proposed Metcalf to Grove 500 kV Transmission Line connection between the proposed Grove HVDC Terminal and the existing PG&E Metcalf Substation is proposed to stop at a splice vault located at the western property line of the substation (see Figure 2-3d). PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation.

For these PG&E substation modifications, additional stormwater management measures may be required to address runoff from new or redeveloped impervious areas. If additional stormwater management measures are required, it may be possible to design measures that would address a combination of stormwater management requirements (as opposed to designing separate measures to comply with each set of requirements). Stormwater management for the Project is discussed further in Section 2.8.8, *Dust, Erosion, and Runoff Controls*.

Water Source Upgrades

Modification of the existing PG&E Metcalf Substation would conflict with, and require the removal of, the well water system and related components and fire water system (a 47,000-gallon storage tank and related system components) that serve the existing substation and the adjacent PG&E General Contractor Yard. The system would be replaced by a new connection to Great Oaks Water District's water system, which would involve trenching and related construction activities to extend a 10-inch water line to the existing PG&E Metcalf Substation from the closest connection point (a 16-inch water main near the corner of Metcalf Road and Malech Road). The water line would include approximately 1,400 feet of trenching and horizontal directional drilling (HDD) under U.S. 101 for 240 feet. The preliminary water pipeline route is shown in Figure 2-3d.

2.6.4 Ancillary Facilities

2.6.4.1 Coyote Ranch Road and Coyote Creek Trail

The Project would include a new road alignment along Coyote Ranch Road that would consist of base rock topped with pavement. Coyote Ranch Road would be realigned to straighten and minimize roadway bends on Santa Clara County Parks land. The new alignment of Coyote Ranch Road would be 20 feet wide, excluding the shoulder, and would remove two 90-degree curves and a portion of the existing roadway. The new road alignment would be approximately 850 feet long.

Also, a new turnaround would be installed at the entrance to Coyote Ranch on Santa Clara County Parks land. These road improvements would allow for more efficient ingress and egress of firefighter vehicles and equipment to Coyote Ranch.

In addition to the proposed realignment of Coyote Ranch Road, the Coyote Creek Trail would be realigned out of the Coyote Creek riparian area on Santa Clara County Parks land and alongside Coyote Ranch Road. The Coyote Creek Trail alignment would be approximately 12 feet wide and 2,300 feet long. This alignment would be graded flat and would consist of base rock topped with pavement.

After installation of the proposed underground transmission lines, the road surface would be restored to its original condition or otherwise in compliance with local requirements. For example, Coyote Ranch Road would be repaved, improved, and realigned in accordance with the easement to be negotiated with the Santa Clara County Parks Department.

2.6.4.2 Third-Party Utility Relocations

In addition to PG&E utility relocations, excavation and installation of the concrete-encased duct bank and associated splice vaults would require the relocation of certain third-party utilities in areas of conflict. Utilities would be avoided where practicable, but some utilities would require relocation. Utilities that would require relocation may include sanitary sewer, stormwater, gas, water, electrical, and telecommunication. However, the exact utilities and relocation alignments are not known at this time. Utility relocations are discussed further in Section 2.8.3, *Site Preparation*.

2.6.4.3 Transmission Line Avian Protection Design

Appropriate methods to reduce the risks of avian collisions would be incorporated into the Project design, consistent with the Avian Power Line Interaction Committee recommendations (APLIC 2012), where appropriate. For example, conductors and ground wires would be spaced sufficiently far apart that raptors would be unable to contact two conductors or one conductor and a ground wire, causing electrocution (APLIC 2006).

Aerial Marking and Lighting

As stated previously, the tallest structures within both proposed HVDC terminal sites would be the 100-foot-tall lightning shielding masts. A 100-foot-tall structure would still be below the maximum Federal Aviation Administration (FAA)–authorized aboveground structure height limit for the proposed Skyline HVDC Terminal site. Therefore, aviation lighting or markings are not anticipated for the Project.

2.6.5 Access Roads

The Project would include two new access roads, which would connect the proposed Grove and Skyline HVDC Terminals to existing roadways, as discussed further below. Figures 2-5 and 2-6 show these proposed new access roads.

2.6.5.1 Skyline HVDC Terminal

As under existing conditions, primary access to the proposed Skyline HVDC Terminal site for both Project construction and operation and maintenance would be from Santa Teresa Street and Ryland Street. A new terminal access road would be constructed to connect the existing paved roadway to the terminal facility's perimeter wall. Santa Teresa Street and Ryland Street are both two-lane, 30-foot-wide, public paved roads that provide access to the proposed Skyline HVDC Terminal site from Coleman Avenue. The Project would include improvements to upgrade the paved access road apron to provide an adequate entrance from Ryland Street to the terminal site as required. The new terminal access road at the proposed Skyline HVDC Terminal site would be approximately 20 feet wide and 150 feet long.

The proposed Skyline HVDC Terminal would not include dedicated permanent internal access roads. Rather, the entire terminal facility would be capped with crushed rock to provide access within and around the facility footprint. A new permanent gate would be installed at the terminal driveway along the perimeter wall that would align with the terminal access road.

2.6.5.2 Grove HVDC Terminal

As under existing conditions, primary access to the proposed Grove HVDC Terminal site for both Project construction and operation and maintenance would be from Monterey Road. An access road to the terminal would be constructed to support construction traffic from Monterey Road to the terminal facility's perimeter wall and gate (see "Exterior Access Road" in Figure 2-6). The access road at the proposed Grove HVDC Terminal would approximately 300 feet to be 20 feet wide. At this location, Monterey Road has four lanes and is 80 feet wide, and is a public paved, divided road. For access to the proposed Grove HVDC Terminal from Monterey Road, the Project includes the installation of a paved access road apron where the new access road approaches Monterey Road as required.

The proposed Grove HVDC Terminal would not include dedicated permanent internal access roads. Rather, the entire terminal facility would be capped with crushed rock to provide access within and around the facility footprint. A new permanent gate would be installed at the terminal driveway along the perimeter wall that would align with the terminal access road.

2.6.6 Telecommunication Lines

The Project includes telecommunications infrastructure that would connect the new HVDC terminals to each other, connect the terminals to the existing PG&E substations, and connect each proposed HVDC terminal to local existing third-party internet providers. The proposed Grove to Skyline telecommunication line would be 13 miles long while the proposed Metcalf to Grove telecommunication line would be 1.2 miles long, the same lengths as the proposed Grove to Skyline 320 kV Transmission line and proposed Metcalf to Grove 500 kV Transmission line, respectively.

These telecommunication lines would all be underground; therefore, no overhead lines or wireless connections (e.g., antennas) would be required. Underground telecommunication paths would be installed along the transmission lines to provide redundant communications. Additional telecommunication connections would be made at the location of each proposed HVDC terminal, connecting to existing third-party internet service providers. Each telecommunication path would consist of fiber optic cables.

The two telecommunication lines that would be installed in the transmission line duct bank would be housed in two 2-inch-diameter conduits, which would be included in the trench duct bank. The telecommunications lines would be 3–4 feet below ground surface. For the telecommunication lines in the transmission line duct bank, fiber splices would be contained within separate underground fiber splice vaults or at the substation termination structures, and fiber splices would not be located within the transmission line splice vaults.

The local third-party internet connections for the terminal sites would also be located underground and would connect to existing telecommunication lines adjacent to the terminal sites. For the proposed Grove HVDC Terminal, the third-party internet provider would likely connect along Monterey Road, and the new telecommunication lines would be placed underground and extend to the northeast for 300 feet before connecting to the terminal facility. For the proposed Skyline

HVDC Terminal, the third-party internet provider would likely connect along Santa Teresa Street or Ryland Street, and the new telecommunication lines would be placed underground and extend to the south for 150 feet before connecting with the terminal facility.

2.7 Landownership, Rights-of-Way, and Easements

2.7.1 Landownership

2.7.1.1 LSPGC Facilities

The parcels associated with the proposed Skyline HVDC Terminal site (APNs 259-23-020 and 259-23-024) are currently owned by LSPGC. The parcels associated with the proposed Grove HVDC Terminal site (APNs 725-14-008, 725-14-009, 725-14-014, and 725-14-015) are currently under an exclusive option to purchase by LSPGC.

2.7.1.2 PG&E Facilities

PG&E owns the parcels on which the existing PG&E San Jose B and Metcalf substations are located.

2.7.2 Existing Rights-of-Way or Easements

2.7.2.1 LSPGC Facilities

LSPGC does not have any existing ROWs or easements in the Project area.

2.7.2.2 PG&E Facilities

PG&E's existing transmission, power, and distribution lines connecting to the PG&E Metcalf and San Jose B substations are located within existing ROWs or easements, of varying size and width.

2.7.3 New or Modified Rights-of-Way or Easements

LSPGC would acquire the necessary land rights along the length of the proposed transmission lines. A portion of the new permanent easement/ROWs would be acquired by LSPGC through negotiations with private landowners and PG&E. In particular, LSPGC would acquire four parcels of land through the purchase of privately owned parcels, totaling 13.6 acres. New easements or ROW would range in width from 3 feet to 5 feet, with additional width for splice vaults. New permanent ROWs or licenses would also be acquired from each applicable public agency through that agency's designated process. The Project would require approximately 7 acres of new ROW, easement, or franchise agreements.

2.7.3.1 LSPGC Facilities

High-Voltage Direct Current Terminals

The proposed HVDC terminals would be located on land owned by LSPGC and would not require a new or modified ROW, easement, or other land use agreement. However, as discussed further in Section 2.8.11, *Waste Generation and Management*, the proposed Skyline HVDC

Terminal site is located on an identified Cleanup Program Site and currently has a Covenant and Environmental Restriction on Property, or Covenant.

Additionally, the proposed Skyline HVDC Terminal site has several easement considerations on the property. Among these are California Department of Transportation roadway easements, Santa Clara Valley Water District (Valley Water) water management and/or stormwater drainage easements, telecommunication easements, PG&E easements, and a railroad easement. None of the existing encumbrances would prohibit the development of the proposed Skyline HVDC Terminal.

Transmission Lines and Transmission Tie Line

Because the proposed Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would be located mostly within existing public roadways, both transmission lines would require new ROWs, easements, and/or franchise agreements: 13 miles for the proposed Grove to Skyline 320 Transmission Line and 1.2 miles for the proposed Metcalf to Grove 500 kV Transmission Line. The ROWs, easements, and/or franchise agreements would be required mainly from local jurisdiction agencies.

The width of the permanent ROW for both proposed underground transmission lines would vary but would range from 3 to 5 feet. The ROW would be expanded at vault locations to encompass the entire splice vault (i.e., 10 feet wide). The specific width of necessary easements, ROW, or franchise agreements along the alignments of the proposed underground transmission lines would be refined during the final engineering process.

The proposed Skyline to San Jose B 230 kV Transmission Tie Line would extend within the proposed Skyline HVDC Terminal parcel. LSPGC would retain any necessary land rights required for the transmission tie line during the transfer of a portion of the proposed Skyline HVDC Terminal parcel to PG&E.

LSPGC may negotiate a new easement with two private landowners for the proposed transmission lines: Westbury Downtown, LLC and PG&E. LSPGC would also obtain ROWs for the lands along the alignments of the proposed underground transmission lines that are owned by the city of San José, Santa Clara County, and Valley Water.

The total number of land rights to be acquired would be finalized during final engineering. The specific width of necessary easements, ROWs, or franchise agreements along the transmission line alignments would be refined during the final engineering process. Should the CPCN application be approved, LSPGC would also have the power of eminent domain to acquire any necessary land rights for construction of the Project.

Construction of the proposed transmission lines or proposed HVDC terminal facilities would not require the relocation or demolition of any commercial or residential properties or structures.

2.7.3.2 PG&E Facilities

PG&E may require new or modified ROWs or easements to relocate its existing transmission and distribution lines and to install a new water line near the existing PG&E Metcalf Substation.

Further, PG&E and LSPGC would need to negotiate the transfer of a portion of the proposed Skyline HVDC Terminal parcel to allow for the expansion of the existing PG&E San Jose B Substation. The potential need for new rights would be determined during detailed design.

2.7.4 Temporary Rights-of-Way or Easements

Temporary easements would be required for the Project's construction staging areas, which are identified in Section 2.8.2, *Staging and Construction Work Areas*. Additionally, temporary rights necessary for the installation of the proposed underground transmission lines would be included in the necessary ROWs, easements, and/or franchise agreements.

LSPGC would need to negotiate a temporary easement with one private landowner, Westbury Park, LLC, to provide a transmission line construction workspace, including a horizontal bore work area. A smaller permanent easement would also be required for the transmission line ROW.

2.8 Construction

This section provides an overview of the methods that would be used during Project construction. Specifically, this section describes construction methods for the two new HVDC terminals, the new transmission lines (including the overhead transmission tie line), upgrades and expansions to the existing substations, modifications to ancillary facilities, construction equipment, and staging and temporary work areas.

2.8.1 Construction Access

2.8.1.1 Existing Access Roads

Skyline HVDC Terminal

As under existing conditions, primary access to the proposed Skyline HVDC Terminal site for both Project construction and operation and maintenance would be from Santa Teresa Street and Ryland Street. Santa Teresa Street and Ryland Street are both two-lane, 30-foot-wide, public paved roads that provide access to the site from the SR 87 interchange with Taylor Street via Coleman Avenue.

Grove HVDC Terminal

As under existing conditions, primary access to the proposed Grove HVDC Terminal site for both Project construction and operation and maintenance would be from Monterey Road. Monterey Road is a four-lane, 80-foot-wide, public paved divided road that provides access to the site from U.S. 101 via Bailey Avenue.

Transmission Line Access

The Project's proposed underground transmission lines (Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line) would be sited almost exclusively within existing public roadways. Therefore, the roads along the transmission line alignment and adjoining

roads would be used for construction and operational access. See Figures 2-3a through 2-3d for an overview of roads that would be used for transmission line access.

Substation Site Access

Access to the existing PG&E San Jose B Substation is from Coleman Avenue and Santa Teresa Street, and access to the existing PG&E Metcalf Substation—including the proposed substation modification area—is from Metcalf Road and Coyote Ranch Road (see Figures 2-3a through 2-3d).

2.8.1.2 New Access Roads

The Project includes two new permanent access roads, which would provide access to each proposed HVDC terminal. Construction of these access roads would involve grading and rocking or paving in accordance with the final Project design. A permanent gate would be installed at the driveway of each HVDC terminal, along the perimeter wall. The proposed HVDC terminals would not include dedicated permanent internal access roads. Rather, the entire terminal facility would be capped with crushed rock to provide access within and around the facility's footprint. The new access roads are depicted in Figures 2-5 and 2-6. **Table 2-3**, *New Access Roads*, provides additional details about the access roads.

TABLE 2-3
NEW ACCESS ROADS

Road	Type of Road/Improvement	Dimensions	Disturbance Area
Skyline HVDC Terminal access road	New access road. Pavement, gravel, or base rock would be used for all-weather, dust-resistant surfacing.	20 feet wide/ 150 feet long	0.07 acre (3,000 square feet)
Grove HVDC Terminal access road	New access road. Graded flat. Pavement, gravel, or base rock would be used for all-weather, dust-resistant surfacing.	20 feet wide/ 300 feet long	0.14 acre (6,000 square feet)

SOURCE: LSPGC 2025

2.8.1.3 Overland Access Routes

No overland access routes would be used during construction or operation and maintenance of the Project.

2.8.1.4 Helicopter Access

Helicopters would not be used for construction or operation and maintenance of the Project.

2.8.2 Staging and Construction Work Areas

All Project components would require staging and construction work areas, and some Project components would require permanent work areas during operation and maintenance for the life of the Project. **Figures 2-10a** through **2-10d**, *Project Disturbance Areas*, depict all construction work areas (i.e., limits of construction). A detailed description of the work to be performed in the identified work areas is provided in Section 2.8.4, *Aboveground Transmission Line Construction*, and Section 2.8.5, *Belowground Transmission Line Construction*.

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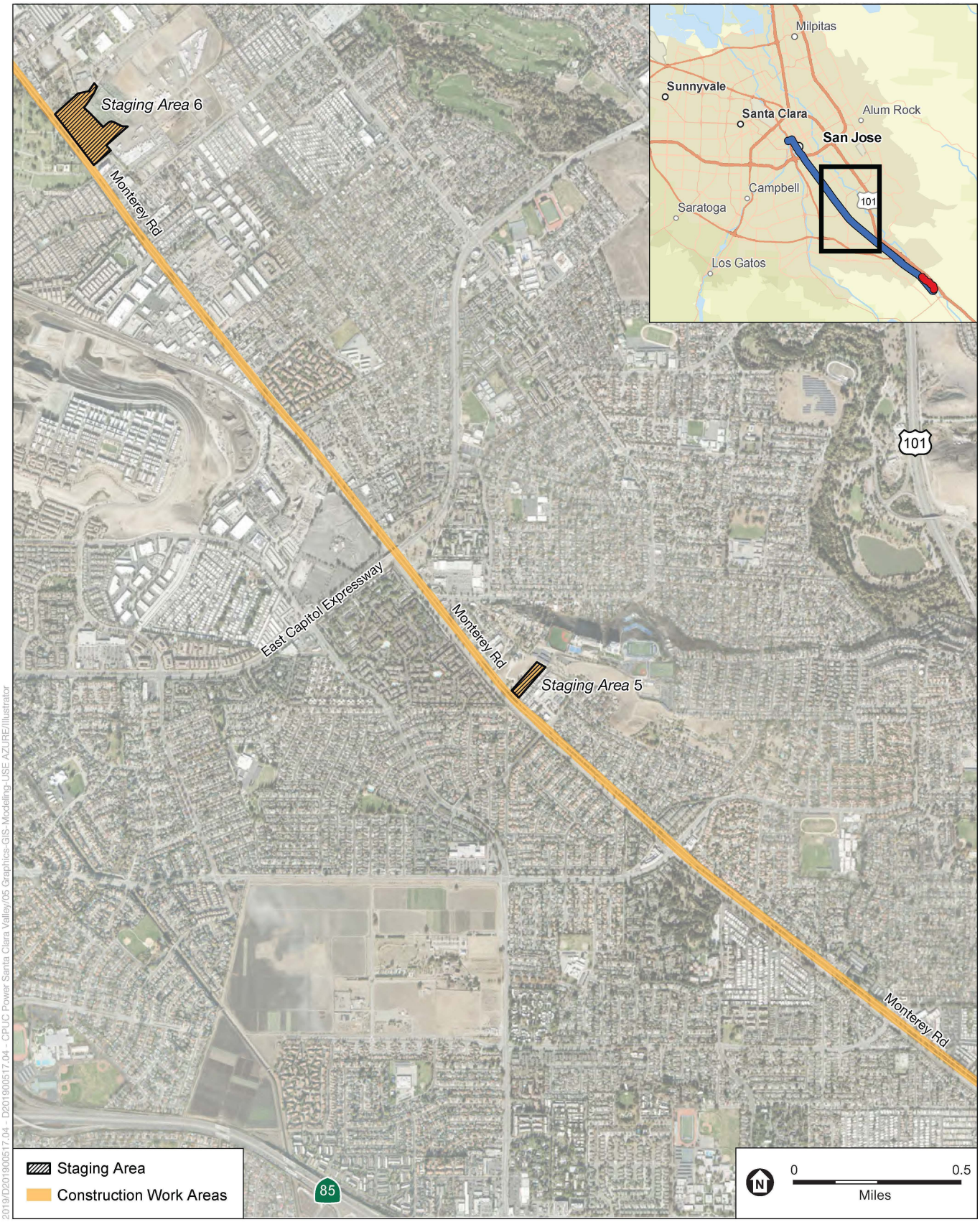
SOURCE: LS Power, 2024

Power Santa Clara Valley Project

Figure 2-10a
Project Disturbance Areas



SOURCE: LS Power, 2024

Power Santa Clara Valley Project

Figure 2-10b
Project Disturbance Areas

SOURCE: LS Power, 2024

Power Santa Clara Valley Project

Figure 2-10c
Project Disturbance Areas

SOURCE: LS Power, 2024

Power Santa Clara Valley Project

Figure 2-10d
Project Disturbance Areas

2.8.2.1 Staging Area Locations

The Project includes 12 potential temporary construction staging areas located along the Project's proposed transmission lines, terminal sites, and substation sites. LSPGC would use two to four staging areas during construction, not including the terminal and existing substation sites. The 12 potential staging area sites have been included as options because site availability during the construction window, which is years in the future, is uncertain at this stage. In addition to the temporary construction staging areas, the Project would include limited construction staging and equipment parking on city streets along the alignment for the proposed Grove to Skyline 320 kV Transmission Line, where approved by the local agency (e.g., City of San José). **Table 2-4**, *Proposed Staging Areas*, identifies the locations and sizes of, and the access points to, the proposed staging areas.

TABLE 2-4
PROPOSED STAGING AREAS

No.	Location	Access[1]	Size (acres)
1	Grove HVDC Terminal	Monterey Road	6.6
2	PG&E Metcalf Substation	Coyote Ranch Road	7.8
3	PG&E Metcalf Substation	Coyote Ranch Road	9.3
4	Bernal Road and SR 85	Bernal Road or the SR 85 entrance ramp	4.0
5	4310 Monterey Road	Monterey Road	2.2
6	Santa Clara County Fairgrounds	Monterey Road	12.6
7	1675 Monterey Road	Monterey Road	6.1
8	Alma Avenue	Alma Avenue	3.1
9	185 West Humboldt Street	Keyes Street	5.1
10	217 Delmas Avenue	Delmas Avenue, San Carlos Street, Sonoma Street, or Park Avenue	2.1
11	323 Terraine Street	Terraine Street or Bassett Street	1.6
12	Skyline HVDC Terminal	Ryland Street	2.9
		Total	**63.3**

NOTES:
HVDC = high-voltage direct current; PG&E = Pacific Gas and Electric Company; SR = State Route
1. Access from the potential construction staging areas to the Project area would be on existing public roadways.
SOURCE: LSPGC 2025

Each morning, construction workers would meet at the staging areas and park their vehicles there. All construction equipment and vehicles associated with Project construction would be parked within one of the staging areas while inactive.

2.8.2.2 Staging Area Preparation

Preparation of the staging areas would involve clearing, grubbing, and limited grading, as needed, to establish a level working surface. Where staging areas would be located in existing paved areas, site preparation would not be required. Staging areas may be used for refueling of vehicles and construction equipment; as an equipment wash station; for assemblage; for storage of material and equipment, storage containers, construction trailers, and portable restrooms; and for parking and lighting. Transmission line and HVDC terminal equipment required for the Project,

such as conduit, cables, HVDC equipment, riser structures, bus, cable trench, and rebar, would be received and temporarily stored in a staging area before installation.

Gravel may be used to line the ground in the staging areas to prevent unsafe surface conditions and unnecessary sediment transport off-site. Perimeter security fencing would be installed around the outer limits of the staging areas. Lighting would also be installed for security purposes, and would be shielded to direct light downward and away from any nearby sensitive receptors. Temporary construction power would be provided via one or more existing distribution lines near the staging areas. Temporary generators would be a contingency if distribution power is unavailable.

All major electrical and terminal equipment for the proposed Skyline and Grove HVDC Terminals, such as the converter transformers, would be delivered to the terminal sites and placed directly on previously constructed foundations. Other terminal equipment, such as HVDC equipment, riser structures, bus, conduit, cable trench, and rebar, would be received and temporarily stored at a staging area before installation. All construction equipment and vehicles associated with construction of the proposed HVDC terminals would be parked within a staging area while inactive and at the completion of each workday, where practical. **Table 2-5**, *Summary of Work Area Disturbance*, provides estimated work area totals (both temporary and permanent footprints) for each Project component.

2.8.2.3 Construction Work Areas

Construction of the proposed Skyline and Grove HVDC Terminals would require grading, fill, and the installation of chain-link fencing that would extend beyond the proposed permanent impact area and around the outer limits of the staging area. Work areas would be needed around the perimeters of the proposed new terminals to facilitate construction and access.

Skyline HVDC Terminal

The permanent footprint of the proposed Skyline HVDC Terminal would be 5.2 acres and the total permanent impact area would be 5.5 acres. About 8.5 acres of the site would be temporarily disturbed by construction staging and work area used for construction of the proposed HVDC terminal and expansion of the adjacent PG&E San Jose B Substation.

Grove HVDC Terminal

The permanent footprint of the proposed Grove HVDC Terminal would be 6.3 acres and the total permanent impact area would be 7.4 acres; 12.8 acres would be temporarily disturbed. About 0.8 acre of the proposed Grove HVDC Terminal site would remain undisturbed during construction to provide screening along Monterey Road; this area is not included in the 12.8 acres of temporary disturbance.

Transmission Lines

Work areas for installation of the Project's proposed transmission lines would be located almost exclusively on existing roadways, within the proposed HVDC terminal sites, or within the existing PG&E Metcalf and San Jose B substations (see Figures 2-3a through 2-3d). Work areas for the portions of proposed transmission lines located within terminal sites would be considered part of the terminal work areas.

TABLE 2-5
SUMMARY OF WORK AREA DISTURBANCE

Work Area	Temporary or Permanent Disturbance	Disturbance Area (approximate metrics)
Staging areas[1]	Temporary	63.3[2] acres
Skyline HVDC Terminal	Permanent	5.5 acres
Grove HVDC Terminal	Permanent	7.4 acres
PG&E Metcalf Substation modifications	Permanent	2.7 acres
PG&E San Jose B Substation rebuild and expansion	Permanent	3.3 acres
PG&E water line	Temporary	0.5 acre
Relocated Coyote Ranch Road and Coyote Creek Trail	Permanent	1.1 acres
Transmission lines[3]	Temporary	180 acres
Grove to Skyline 320 kV DC Transmission Line (underground)[4]	Permanent	1,000 square feet
Metcalf to Grove 500 kV AC Transmission Line (underground)[4]	Permanent	100 square feet
Total Temporary Work Area Disturbance[5]		**243.8 acres**
Total Permanent Work Area Disturbance		**20.0 acres**

NOTES:

AC = alternating current; DC = direct current; HVDC = high-voltage direct current; kV = kilovolt; PG&E = Pacific Gas and Electric Company

1. Includes temporary impact areas at the proposed Skyline and Grove HVDC Terminals that would be used for construction staging.
2. The total area of the 12 potential staging areas is included in this calculation. However, the Power Santa Clara Valley Project would use only about two to four staging areas, not including the terminal and existing substation sites. Therefore, the actual total disturbance for staging areas would be substantially less than the total area listed herein.
3. Transmission line work areas that occur within terminal site boundaries are accounted for in the terminal site work area totals. Transmission line acreage includes temporary acreage for splice vaults, horizontal directional drilling pits, and horizontal bore pits.
4. The only permanent surface disturbances for the transmission lines are the vault manhole covers.
5. Although permanent work areas, such as the proposed HVDC terminal and substation expansion and modification areas, would also be used during construction, these areas are not included in the temporary impact areas. Each impact area is counted only once, as either permanent or temporary.

SOURCE: LSPGC 2025

The exact locations of the proposed underground transmission line and its components, including splice vaults, HDD pits, and horizontal bore (jack-and-bore and micro-tunneling) pits, are not known at this time. Therefore, estimates of construction work areas include the entire area of the existing road ROW where the proposed transmission lines would be installed. Actual transmission line work areas would be much smaller than the estimates included here. The following are some typical work areas for proposed transmission line components:

- Horizontal bore sending and receiving pits measure 15 feet by 50 feet.
- A horizontal bore temporary workspace that is in line with or adjacent to the pits measures 30 feet by 80 feet.
- HDD sending and receiving pits measure 6 feet by 20 feet.
- The HDD pullback area for staging and pipe fusion begins at the receiving pit and is longer than the full length of the proposed HDD area.

- Pulling and splicing sites can vary in size depending on site-specific conditions and requirements but are usually about 30 feet wide and up to 200 feet long.

During underground construction, typically two lanes of traffic would be shut down at the location of construction work. This area would represent the temporary construction work area and would be 20–30 feet wide, depending on site-specific road conditions and city-approved traffic control plans (TCPs). All additional underground construction activities would occur within this area. After installation of the proposed underground transmission lines, the road surface would be restored to its original condition or to a condition otherwise in compliance with local requirements.

All areas where underground transmission would be installed would be restored to their original condition. Although exact locations are unknown, sidewalks and road medians may be affected when the Project is constructed within existing roads near these features. Based on preliminary information, the proposed transmission lines would be located outside of existing public roadways at the following locations, where they would extend for the approximate distances indicated:

- The existing PG&E Metcalf Substation (100 feet), the proposed Grove HVDC Terminal (1,000 feet), and the proposed Skyline HVDC Terminal (600 feet).
- The parking lot south of the proposed Skyline HVDC Terminal (130 feet).
- Coyote Creek Parkway between the proposed Grove HVDC Terminal and Coyote Ranch Road (1,200 feet) and the proposed realignment of Coyote Ranch Road (850 feet).

Interconnections and Substation Modifications

The modifications to the existing PG&E Metcalf and San Jose B substations would be completed within the substation sites or within the Project's HVDC terminal sites. For example, the entire 2.1-acre PG&E San Jose B Substation site would be used as a temporary work area and would be retained as a permanent work area for the expanded substation, which would result in 3.3 acres of permanent impact. Construction and operation of the expanded PG&E San Jose B Substation would also use part of the proposed Skyline HVDC Terminal property (see Figure 2-3a). The sites of the existing PG&E San Jose B Substation site and proposed Skyline HVDC Terminal would likely be used as staging areas for construction at the substation.

The modifications at the existing PG&E Metcalf Substation would be completed in the substation modification area, located immediately north of the existing 500 kV substation bay. The existing PG&E Metcalf Substation's modification area would occupy 2.7 acres, resulting in a permanent impact of 2.7 acres. Staging Area 2 would be used to support the substation modifications. PG&E may also use areas within or adjacent to the existing PG&E Metcalf Substation modification area for construction staging, as needed.

Coyote Ranch Road and Coyote Creek Trail

The Coyote Creek Trail and Coyote Ranch Road realignments would have a total permanent disturbance area of approximately 1.1 acres. The realigned Coyote Creek Trail would be 12 feet wide, and the trail realignment would permanently disturb 0.65 acre. The realigned Coyote Ranch Road would be 20 feet wide, with a 0.36-acre permanent disturbance area.

Temporary work areas surrounding Coyote Ranch Road and Coyote Creek Trail would differ in size, shape, and width but would total 13.1 acres. These temporary construction work areas would encompass the permanent road and trail realignment area and would extend from the PG&E Metcalf Substation to the HDD work area on the north side of Coyote Creek (see Figure 2-10d). This work area would be used for transmission line construction and construction of the road and trail realignment, with most work occurring within the permanent disturbance area.

2.8.2.4 Work Area Disturbance

The Project would result in both temporary and permanent disturbance of work areas. Table 2-5 provides estimated work area totals (both temporary and permanent footprints) for each Project component. No permanent disturbance areas would be associated with the HDD pits and horizontal bore pits.

In addition, Figures 2-10a through 2-10d identify disturbance areas associated with the Project. In total, the Project would permanently disturb 20.0 acres and temporarily disturb 243.8 acres.

2.8.2.5 Temporary Power

For its construction power supply, LSPGC would connect to existing overhead or underground distribution lines near the Project area. A temporary distribution line would be installed overhead on wood poles or underground to provide temporary power to the staging areas and both proposed HVDC terminal sites during construction. The use of temporary generators at the terminals and staging areas would be a contingency should distribution power not be available in a timely manner before the start of construction. Temporary generators would be required during construction of the proposed underground transmission lines. Although the exact locations of the temporary distribution lines are unknown, impacts from the use of a temporary power supply would most often occur within existing road ROWs and the staging area boundaries.

2.8.3 Site Preparation

2.8.3.1 Surveying and Staking

LSPGC would survey and mark the underground alignment at regular intervals and at all known underground facilities. LSPGC would also clearly mark any sensitive biological, cultural, paleontological, or hydrological resources, where appropriate, to restrict construction activities and equipment from entering these areas.

2.8.3.2 Utilities

Before initiating construction, LSPGC would contact Underground Service Alert (USA), also known as USA North 811, to identify underground utilities in the immediate area. Before excavating for construction of the proposed transmission lines, LSPGC would conduct exploratory excavations (i.e., potholing) to verify the locations of existing utility facilities in the ROW. In the event underground utilities be identified, LSPGC would work with the owner of those utilities to determine whether design changes can be made or whether utility relocation is necessary.

Excavation and installation of the concrete-encased duct bank and associated splice vaults would require the relocation of certain third-party utilities in areas of conflict. Utilities would be avoided where practicable, but some utilities would require relocation. Utilities that would require relocation may include sanitary sewer, stormwater, gas, water, electrical, and telecommunication, as described in Section 2.6.4, *Ancillary Facilities*.

2.8.3.3 Vegetation Clearing

Construction at the proposed Grove HVDC Terminal site would require the clearing of 12.8 acres of orchard trees. Approximately 0.8 acre of existing orchard trees along the Monterey Road frontage of the proposed Grove HVDC Terminal site would be temporarily affected and preserved as screening in place of new landscaping. Construction at the proposed Skyline HVDC Terminal site would require the clearing of two large, mature Peruvian pepper trees from the northwestern portion of the terminal site.

Vegetation removal would also be required for the proposed Metcalf to Grove 500 kV Transmission Line. This vegetation removal would include 1.1 acres associated with the permanent impacts from the proposed Coyote Creek Trail and Coyote Ranch Road realignments.

Additional vegetation clearing would be needed within a portion of the temporary work area for the Coyote Creek Trail and Coyote Ranch Road realignments. Finally, vegetation clearing would be required within part of the identified work area for the proposed Metcalf to Grove 500 kV Transmission Line between the proposed Grove HVDC Terminal and Coyote Ranch Road, which would be 1.7 acres.

Vegetation removal would be completed using mechanized removal equipment or by hand using chain saws. Vegetation removal would not occur outside of approved work areas. Staging areas would also require vegetation removal, which would include complete removal of vegetation in the staging areas.

2.8.3.4 Tree Trimming and Removal

The terminal sites would be cleared of trees and vegetation as discussed above, specifically for the permanent facilities and to facilitate construction of those facilities. Two trees would be removed at the proposed Skyline HVDC Terminal site; 2,850 orchard trees, more than half planted since 2019, would be removed at the proposed Grove HVDC Terminal site. As stated previously, LSPGC plans to leave 150 trees along the Monterey Road frontage at the proposed Grove HVDC Terminal site.

About 30 additional trees would need to be trimmed or removed for the proposed Coyote Creek Road and Coyote Creek trail realignment, and to construct the proposed transmission lines within existing roads and implement HDD under Coyote Creek for the proposed Metcalf to Grove 500 kV Transmission Line.

Tree trimming would be performed pursuant to General Order 95-D.[10] Any tree removal or trimming performed under the Project would be conducted to facilitate safe construction of the Project and to reduce construction-related fire hazards. Trees would be removed using mechanized removal equipment or by hand using chain saws. Tree removal would be limited to approved work areas (see Section 3.4, *Biological Resources*, for analysis on the Project's effects related to tree preservation policies or ordinances).

2.8.3.5 Work Area Stabilization

Temporary work areas, proposed HVDC terminal sites, and substation upgrade areas, including drainage and detention basins and access roads, would be stabilized during construction with best management practices (BMPs) that would be outlined in the Project's stormwater pollution prevention plan (SWPPP). The SWPPP BMPs would remain in place and would be maintained until new vegetation is established or sites are stabilized.

2.8.3.6 Grading

Construction of the Project and associated improvements would require earthmoving activities at the two proposed HVDC terminal sites. The terminal sites were chosen with avoidance of major site grading in mind. Earthmoving activities would be required for the substation sites; however, this is unlikely to be considered a substantial grading activity. In addition, construction of the proposed underground transmission lines would generate fill material. **Table 2-6**, *Summary of Grading, Excavation, and Material Removal*, identifies the quantities of material to be graded, excavated, and removed as part of the Project.

Almost all identified potential staging areas are existing, pre-disturbed sites, many of which have historically been used for staging material on other projects. Therefore, these proposed staging areas should require a negligible amount of grading, excavation, and material removal. The remaining proposed staging areas, which are not pre-disturbed sites, are generally flat and should require a negligible amount of grading, excavation, and material removal.

As a result of the Project's grading and excavations (e.g., trenching, structure foundations, vaults), approximately 143,000 cubic yards (CY) of material would be hauled off-site, stockpiled, or disposed of consistent with regulatory requirements A total of 5,000 CY of cut material would be reused as fill for the terminal and substation grading work. The remaining 89,000 CY of fill material would consist of concrete, flowable backfill, gravel, and clean fill.

In addition to these general earthmoving quantities, 4–8 inches of surface gravel would have to be imported and installed within the footprints of the proposed Skyline and Grove HVDC Terminal sites. This material would be imported from a suitable, nearby aggregate source. All clean spoils excavated by the Project would be used on-site to balance cut and fill, as feasible. All spoils that are not usable and/or are contaminated would be sent to a properly licensed landfill or other site for reuse. Recyclables would be taken to a licensed recycling facility, and all refuse would be

[10] Tree trimming as required for all lines under General Order 95-D states that "Where overhead wires pass through trees, safety and reliability of service demand that a reasonably amount of tree trimming be done in order that the wires may clear branches and foliage" (CPUC 2020).

taken to a landfill or another suitable facility, discussed in Section 2.8.11, *Waste Generation and Management*.

TABLE 2-6
SUMMARY OF GRADING, EXCAVATION, AND MATERIAL REMOVAL

Grading Description	Activity Description	Quantity (cubic yards)
Underground transmission cut	Installation of underground transmission duct banks, trenchless crossings, and splice vaults.	100,000
Underground transmission fill	Backfilling in and around underground duct bank, trenchless crossings, and splice vaults.	75,000
Skyline HVDC Terminal cut	Grading and excavations at Skyline HVDC terminal site.	19,000
Skyline HVDC Terminal fill	Grading at Skyline HVDC terminal site.	6,000
Grove HVDC Terminal cut	Grading and excavations at proposed Grove HVDC Terminal site.	24,000
Grove HVDC Terminal fill	Grading at proposed Grove HVDC Terminal site.	7,000
PG&E San Jose B Substation expansion cut	Grading and excavations at PG&E San Jose B substation as part of substation upgrades.	5,000
PG&E San Jose B Substation expansion fill	Grading at PG&E San Jose B Substation as part of substation upgrades.	1,000
PG&E Metcalf Substation fill	Raising PG&E Metcalf Substation modification area as part of substation upgrades.	5,000
	Total Cut	**148,000**
	Total Fill	**94,000**

NOTES: HVDC = high-voltage direct current; PG&E = Pacific Gas and Electric Company
SOURCE: LSPGC 2025

Generally, grading and excavation at the terminals would be accomplished in a phased approach. Earthwork activities (e.g., grading, excavation) would be completed so that the site would meet the Project's design specifications and match proposed grades. During earthwork, soils and other surficial deposits not possessing sufficient strength and stability to support structures would be removed from the work area (see Section 2.8.11 for discussion on solid waste management). Removal would extend to competent materials that have high mechanical strength and are resistant to erosion and deformation. Material requiring processing would be mechanically processed on-site for placement as fill.

2.8.4 Aboveground Transmission Line Construction

As discussed in Section 2.6.2, *Transmission Lines*, the Project would include the proposed 100-foot-long Skyline to San Jose B 230 kV Transmission Tie Line, which would connect the proposed Skyline HVDC Terminal to the expanded PG&E San Jose B Substation. This transmission tie line would be a single span from the new substation dead-end structure within the proposed Skyline HVDC Terminal to the new substation dead-end structure within the rebuilt and expanded PG&E San Jose B Substation. The Project would also include termination/riser structures, which are discussed further below.

2.8.4.1 Poles and Towers

As shown in Figures 2-3a through 2-3d, with the exception of the proposed Skyline to San Jose B 230 kV Transmission Tie Line, all proposed transmission lines would be underground. Standard overhead transmission structures would not be used. An existing radial overhead distribution line located on the proposed Grove HVDC Terminal site would need to be relocated. Four wood poles associated with this radial distribution line are located on the proposed Grove HVDC Terminal site. Three of these poles would be removed using a line truck or similar equipment with an attached boom. The entire wood pole (both the aboveground and belowground portions) would be removed. A ground crew would hand-excavate at the base of the wood pole and hydraulic jacks would then be placed around the base of the pole, as necessary. Next, a boom would be attached to the pole, which would then be jacked, lifted out, and placed within the work pad area or on a trailer. The wood poles would ultimately be transported to a PG&E facility for reuse or disposal.

The only other overhead structures (i.e., structures supporting overhead conductor) included in the Project would be the termination/riser structures located at the terminal and substation sites. These structures would bring the underground conductor cables and transition them to overhead wires to connect to the proposed substation or HVDC terminals. These termination/riser structures are described further in the associated subsections for substation facilities (Sections 2.6.2 and 2.6.3).

2.8.4.2 Structure Foundations

The substations' termination/riser structures would be installed on concrete pier foundations. Figure 2-8 and Figure 2-9 show the dimensions of the Project's terminal/riser structures. The foundations would be drilled using a truck- or track-mounted excavator or drill rig. The foundation for each steel substation termination structure would require an excavated hole 5–10 feet in diameter and 15–50 feet deep. Approximately 15–130 CY of material per foundation would be excavated and would be hauled off-site (see Section 2.8.11 for discussion on solid waste management). A commensurate volume of concrete would be used to form the foundation.

After excavation of the foundation, a reinforced steel cage and an anchor bolt cage would be placed in the hole and backfilled with concrete. Concrete forms would be placed at the surface to allow for the final desired pier height above ground level. Each completed foundation would be left to cure until the required strength is met, potentially up to 28 days. Once the concrete has been cured, the steel substation termination structure would be secured to the foundation using the anchor bolts embedded in the finished foundation.

Should the excavation of a foundation hole become unstable during drilling, the hole may be kept open either by inserting a steel casing (permanent or temporary) or by filling the hole with a drilling slurry. After a foundation has been drilled to the desired depth using the drilling slurry, concrete would be pumped to the bottom of the hole, displacing the slurry. Depending on site conditions, the slurry brought to the surface would be collected in a pit adjacent to the foundation or vacuumed directly into a truck to be reused or discarded at an appropriate off-site disposal facility.

Structure Delivery and Assembly

The steel substation termination structures would be delivered to each structure's temporary work pad in multiple sections using flatbed trucks. Depending on conditions at the time of construction, each structure may be assembled on the ground or aerially framed. To frame a structure on the ground, a small crane or forklift would be used to move the structure sections into place. Hydraulic jacks may be temporarily mounted between structure sections to jack the structure sections together if they slip together, or the section would be bolted together. After assembly of the structure on the ground is complete, a large crane would be used to lift the entire structure onto the anchor bolts protruding from the drilled pier foundation.

Should a structure be aerially framed, a large crane would lift the bottom section of the structure onto the anchor bolts protruding from the drilled pier foundation. When the bottom section is secured, the subsequent section(s) of the structure would be similarly slipped together and hydraulically jacked or bolted as required.

2.8.4.3 Telecommunications

As described previously in Section 2.6.6, *Telecommunication Lines*, the Project would include new telecommunication lines that would connect the two new HVDC terminals to each other, connect the new HVDC terminals to the existing PG&E Metcalf and San Jose B substations, and connect the new terminals to local third-party internet providers. All new telecommunication lines would be located underground; no aboveground or wireless telecommunication infrastructure (e.g., antennas) would be required. Where co-located with underground transmission lines, the telecommunication lines would be placed within the transmission line duct bank, and fiber splices would be contained within separate underground fiber splice vaults or at the substation termination structures. Fiber splices would not be located within the transmission line splice vaults.

2.8.4.4 Guard Structures

Guard structures would not be required during Project construction. The Skyline to San Jose B 230 kV Transmission Tie Line would be the Project's only overhead line. However, this line would be constructed directly between the new Skyline HVDC Terminal and the rebuilt and expanded PG&E San Jose B Substation. Given the short distance of this new line and its location, the transmission tie line would not require guard structures.

2.8.4.5 Blasting

Blasting would not be required during Project construction or operation.

2.8.5 Belowground Transmission Line Construction

2.8.5.1 High-Voltage Direct Current Terminals

Belowground work for the proposed HVDC terminal facilities would include construction of the foundations for the terminal equipment and enclosures, oil containment for transformers, ground grid, low-voltage cable needed for terminal equipment, and conduit. The approximate depth of

ground disturbance is not expected to exceed 50 feet for drilled shaft foundations for terminal equipment and 100 feet for piles.

2.8.5.2 Duct Banks and Splice Vaults

As shown in **Figure 2-11**, *Typical Duct Bank Configurations*, the top of the underground duct bank would be a minimum of 3 feet beneath the surface, with depths ranging from 3 to 10 feet. The duct bank would be approximately 2.5 feet wide; the width of trench excavation would range between 3 and 4 feet, based on shoring requirements. A duct bank would generally be used everywhere, except where trenchless crossings are required.

All trench backfilling material would be flowable backfill. The trench backfilling material would be evaluated for thermal characteristics adequate to dissipate heat to meet the new transmission lines' design capacity. For a typical trench section, the duct bank would be encased in flowable thermal concrete, while the remainder of the upper trench section would be filled with fluidized backfill.

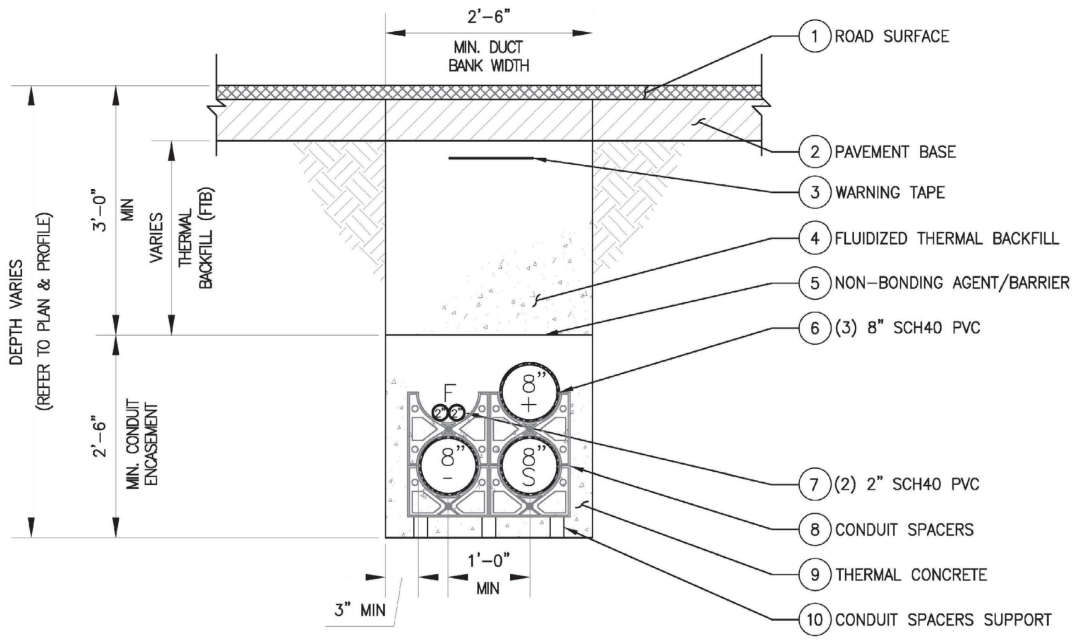
The installation of each splice vault would first entail excavation, shoring, and leveling of the vault's pit using crushed gravel or flowable fill, followed by delivery on a lowboy trailer. The vault would be installed using a crane. Next steps would be filling, grouting and compacting the backfill, and repaving the excavated area. The backfill for splice vaults would consist of either compacted native soil, slurry, or concrete. Specialized techniques for installing underground conductors would be used where surface or underground conditions preclude the use of standard trenching techniques.

Construction crews would excavate and place concrete splice vaults that would be used initially to pull the underground cables through the duct bank and later to splice cables together. The splice vaults would be 10 feet deep and would be installed along the proposed underground transmission line every 1,500–3,000 feet. The bottoms of the vaults would be approximately 12 feet below ground level. To allow for the installation of the splice vaults, excavation would be 3 feet wider on each side. Each vault would have two manhole covers, each with a diameter of approximately 39 inches.

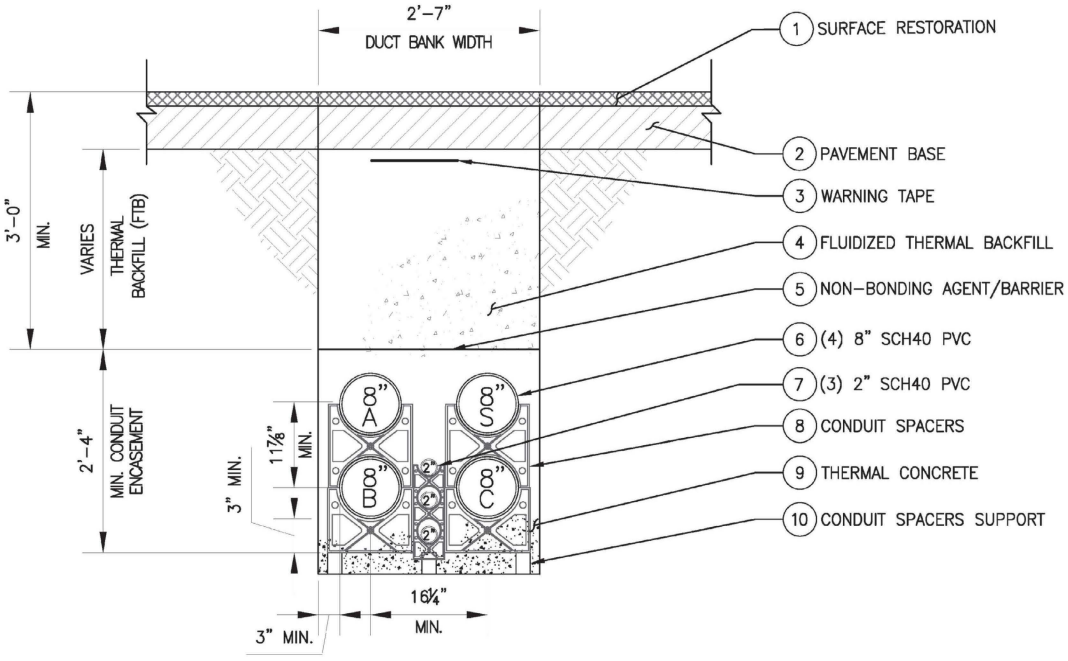
Splice vaults would be sited during detailed engineering design based on utility data and cable supplier specifications. However, LSPGC would site splice vaults to avoid interfering with existing access points and intersections during construction and operation and maintenance, thus minimizing disruptions to the public. Splice vaults within roads would be designed to accommodate federal and local safety loading requirements, including the American Association of State Highway and Transportation Officials' highway loading guidelines. **Figure 2-12**, *Typical Splice Vault Diagrams*, shows splice vaults for the Project's proposed underground transmission line segments.

Underground conductor cables would be installed into the duct banks once the duct bank and splice vaults have been installed. Each duct bank section between splice vaults would be treated as a separate segment for the conductor installation. The cables would be pulled into the duct banks by placing a pulling rig on one end of the duct bank segment and a cable reel on the other end. **Figure 2-13**, *Typical Underground Stringing Operations*, depicts an underground stringing operation for the Project's proposed transmission lines.

Typical 320 kV DC Duct Bank Configuration



Typical 500 kV AC Duct Bank Configuration



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SOURCE: LSPGC, 2023

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Figure 2-11
Typical Duct Bank Configurations

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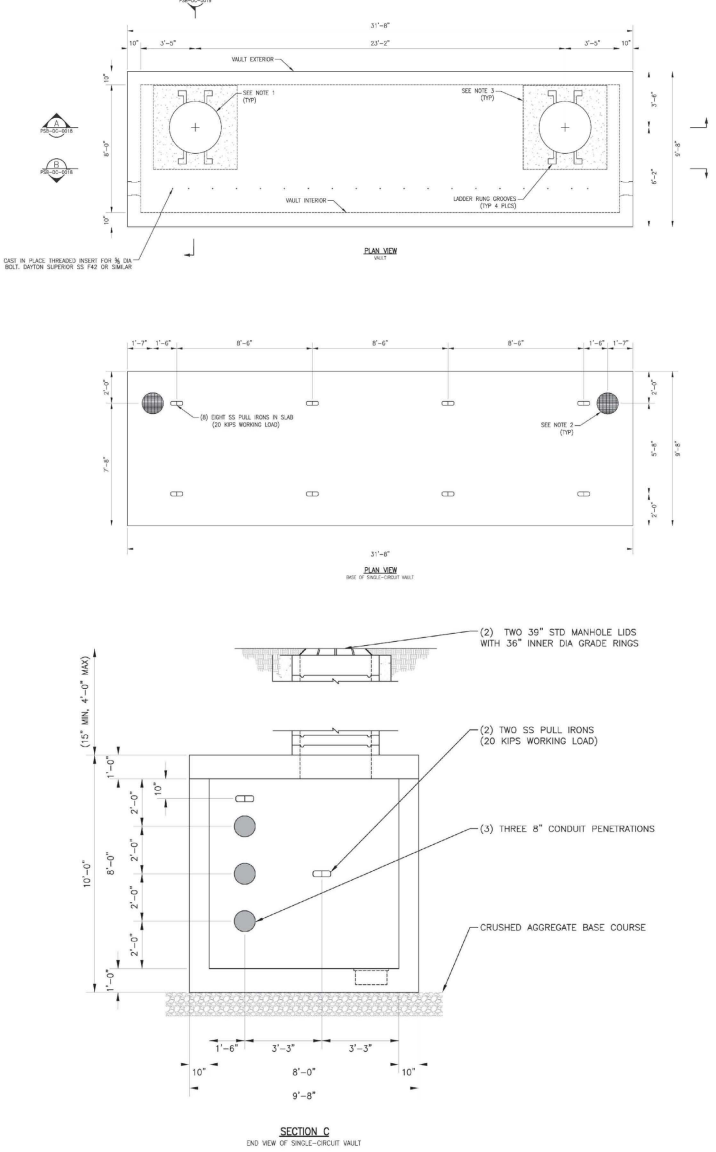
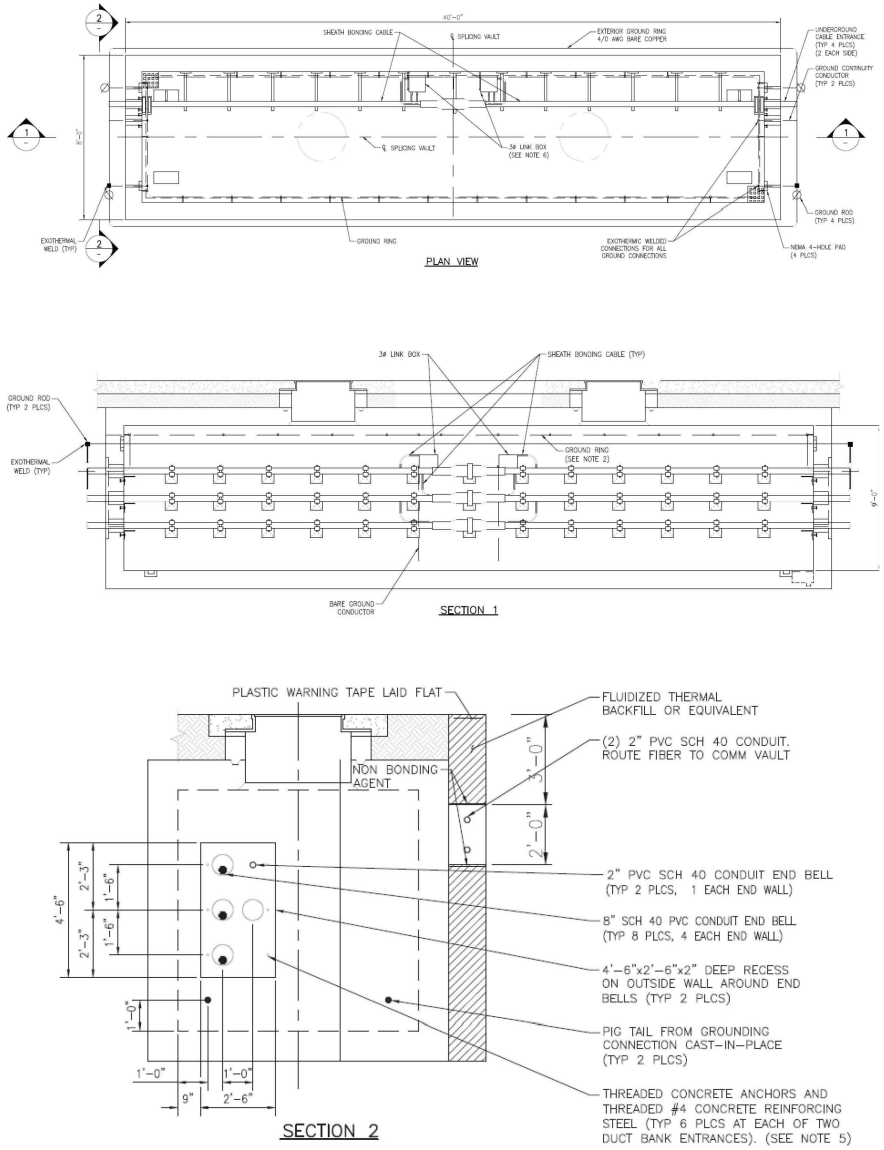
Typical 320 kV DC Splice Vault



Typical 500 kV AC Splice Vault



SOURCE: LSPGC, 2023

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Figure 2-12
Typical Splice Vault Diagrams

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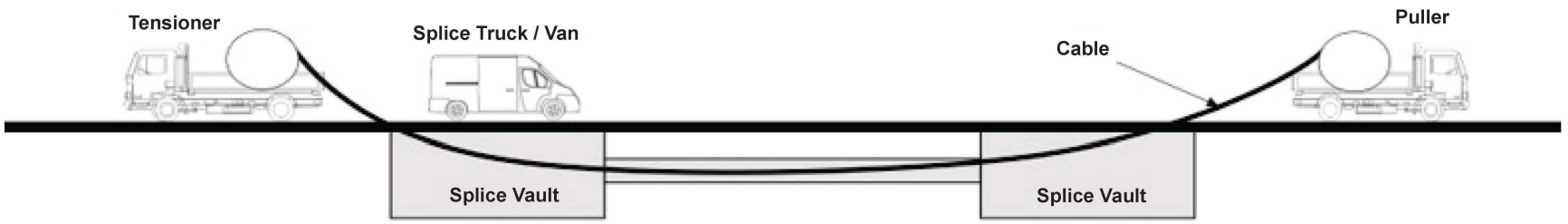

SOURCE: LSPGC, 2023

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Figure 2-13
Typical Underground Stringing Operation

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After the cables have been pulled through the ducts, construction crews would stage a splice trailer adjacent to the splice vault to complete the cable splicing in accordance with the manufacturer's instructions and specifications. At each splice location, the cable sheath and insulation would be removed from the XLPE cable before the copper conductors are spliced together. Similarly, at the proposed HVDC terminal or substation termination structures, the cable sheath and insulation would be removed from the XLPE cable, to facilitate the installation of a terminator on the copper conductor. The installation of temporary scaffolding may be required to reach the elevated terminators on the proposed HVDC terminal or substation termination structures.

During construction, up to three separate crews would work concurrently on splice vault installations at different locations along the proposed transmission lines.

2.8.5.3 Trenching Techniques

Open-cut trenching techniques would be used for most of the transmission duct bank installation. After the route has been marked, the pavement within the trench would be removed. For the typical duct bank, the pavement would be cut with a wet saw or asphalt zipper and excavated with an excavator. Jackhammers may be used to break up sections of concrete that the saw-cutting and pavement-breaking machines cannot reach. Excavators would be used to remove all spoils, which would be loaded into dump trucks to be hauled off-site for disposal in compliance with applicable regulations.

Should groundwater be encountered, dewatering may be required using a portable pump, and the water would be disposed of in accordance with applicable regulations and acquired permits. Groundwater encountered during underground construction would be pumped either into water trucks for haul-off or directly into containment tanks. Dewatering procedures are described further in Section 2.8.9, *Water Use and Dewatering*. Trench depths may vary depending on soil stability and existing substructures. The trenches would be widened and shored where necessary to meet California Occupational Safety and Health Administration (Cal/OSHA) safety requirements.

When the trench is located within roads, a road base backfill, flowable backfill, or slurry concrete cap would be installed, and the road surface would be restored in compliance with local requirements. In non-roadway or trail areas, a fluidized backfill would be used after the trenchless construction and duct bank tie-in. The flowable backfill would typically be stopped 1 foot from the top of finish grade and native soils would be used for the remainder of the backfill.

During installation and restoration of the duct bank, an additional trench would be opened farther down the alignment. This process would continue until all duct banks are installed. The trenching operation(s) would progress such that only a maximum of 1,000 feet of trench at a single worksite (or an amount allowed by permit requirements) would be left open at any one time. Each crew would be spaced out along this work area conducting different tasks (excavation, conduit installation, and backfilling) concurrently in a linear fashion. Daily production rates for duct bank installation would vary substantially, as the process is highly dependent on site specifics such as duct bank depth, soil types encountered, utility crossings, and traffic constraints.

All pit spoils would be hauled off-site and a fluidized backfill would be used after the trenchless construction.

Approximately 95,000 CY and 5,000 CY of soils, respectively, would be removed from the trenches for the proposed Grove to Skyline 320 kV Transmission Line and the proposed Metcalf to Grove 500 kV Transmission Line. Only minimal amounts of spoils would be used as backfill, as the use of flowable thermal concrete or flowable backfill is anticipated. Therefore, almost all spoils would be removed and disposed of or reused off-site at an approved handling facility. See Table 2-5 for the Project's proposed cut and fill quantities.

Off-site disposal could occur at the Newby Island Landfill, the Kirby Canyon Landfill, the Ox Mountain Landfill, the Guadalupe Landfill, or another approved facility. See Section 2.8.11, *Waste Generation and Management*, for additional information regarding disposal of excavated materials. See Section 2.8.10, *Hazardous Materials and Management*, for processes specific to hazardous materials and potentially contaminated soils or groundwater.

LSPGC would implement standard BMPs during Project construction, among them the following:

- The public would be restricted from entering construction work areas along the transmission lines.
- Public access restrictions would be maintained throughout the duration of construction activities at a given location.
- For work associated with the underground transmission lines in existing roads, temporary fences would be erected around open trenches and bore pits that are open for an extended period of time. Open trenches would be steel plated during non-working hours.
- All crossings of existing utilities would be done in a manner that ensures proper separations are maintained and proper supports are in place during the installation process.
- Road barriers, signage, and flaggers would be utilized around construction areas in accordance with the Project's TCP. The TCP would allow the transit of emergency response and maintenance vehicles.
- As practicable, the crews would be located along the transmission line routes in a manner that minimizes impacts on existing roads (see Section 3.17, *Transportation*, for the Project's effects on transportation).

2.8.5.4 Trenchless Techniques

Horizontal Bore (Jack-and-Bore or Micro-tunneling)

Horizontal bores would use either the jack-and-bore or micro-tunneling technique, depending on site conditions. The jack-and-bore technique would involve concurrently pushing a casing pipe through the trenchless crossing and removing the spoil inside the casing with a rotating auger. The micro-tunneling technique would use a micro-tunnel boring machine to create the bore hole. During micro-tunneling, spoils are removed from the cutting face in a slurry and the casing pipe is pushed in behind the micro-tunnel boring machine. Both horizontal bore techniques require sending and receiving pits that would be located on either side of the features to be crossed.

The sending and receiving pits for the horizontal bores would measure approximately 15 feet by 50 feet. The temporary workspace adjacent to the sending and receiving pits at the horizontal bore sites would measure 30 feet by 80 feet. However, these dimensions may vary depending on site-specific constraints and permit requirements. The standard depth of the pits would be 10 feet below grade, with the top of the casing pipe generally at least 4 feet below grade. Depths may vary depending on soil stability and existing substructures.

Figure 2-14, *Typical 320 kV DC Horizontal Bore Diagrams*, depicts the horizontal bore operation, including dimensions and arrangements. The pits would be shored where necessary to meet Cal/OSHA requirements. A horizontal bore sending and receiving pit would require the removal of approximately 350 CY of spoils.

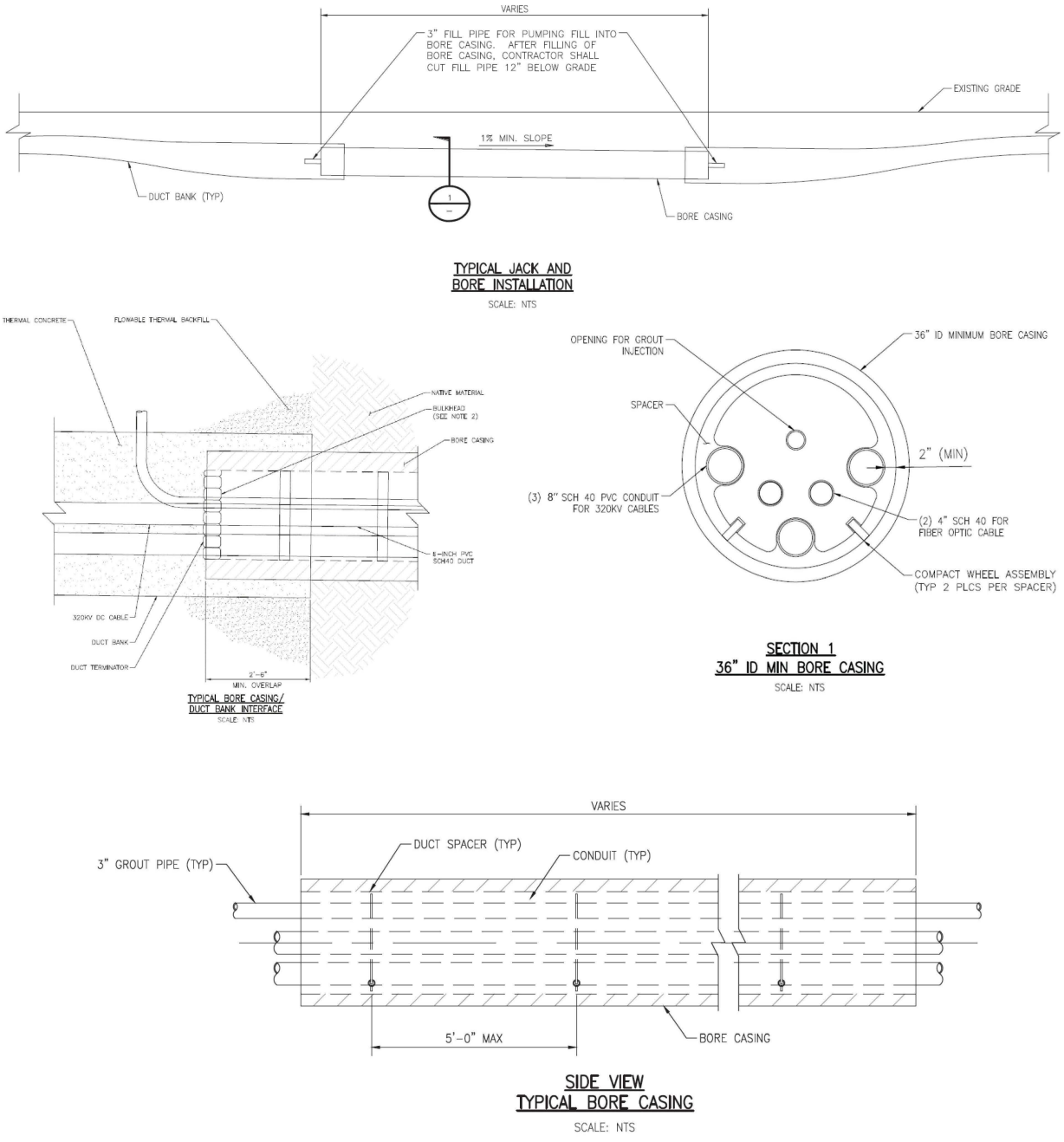
Horizontal Directional Drilling

The HDD installation would use an auger with a drill and spray nozzle on the end to bore under a physical obstruction or sensitive resource that would not allow for a conventional open trench installation. The trenchless crossings would be filled from end to end with a low-strength fluidized backfill (e.g., thermal grout or bentonite slurry) to ensure consistent thermal contact between the conduits and the earth to promote heat dissipation. The HDD sending and receiving pits would be located on either side of the features to be crossed. The sending and receiving pits for the HDD would measure 6 feet by 20 feet. These pits would be used only to contain fluid before it is pumped to the control equipment for cleaning and recirculation. An HDD sending and receiving pit would require the removal of approximately 20 CY of spoils.

The typical temporary workspace around sending and receiving pits at the HDD site would measure 200 feet by 100 feet, which equates to 20,000 square feet of workspace (40,000 square feet for both ends). However, the dimensions of the temporary workspace may vary substantially to accommodate the site-specific constraints at each setup location. The 40,000 square feet of work area would be sufficient for HDD equipment staging, dewatering, and waste management activities. A pullback area for pipe staging and fusion is not included in this work area; it usually begins at the receiving pit and is longer than the HDD's entire length.

Figure 2-15, *Typical Horizontal Directional Drilling Diagram*, depicts an HDD operation, along with its dimensions and arrangements. The pits would be shored where necessary to meet Cal/OSHA requirements. Geotechnical and topographical survey data would be used to design an HDD path that is adequately beneath the streambed to minimize the likelihood of an unintentional returned of HDD drilling fluids to the surface or frac-out.

Conditions would be monitored during drilling activities to ensure that conditions remain adequate. Additionally, drilling fluid return volume would be monitored continuously. A substantial drop in return volume would signify a frac-out, and drilling would be stopped. The bore alignment and any stream crossings would be visually monitored for frac-out at a 100-foot radius. HDD operations under Coyote Creek would be scheduled during dry periods, if possible.



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SOURCE: LSPGC, 2023

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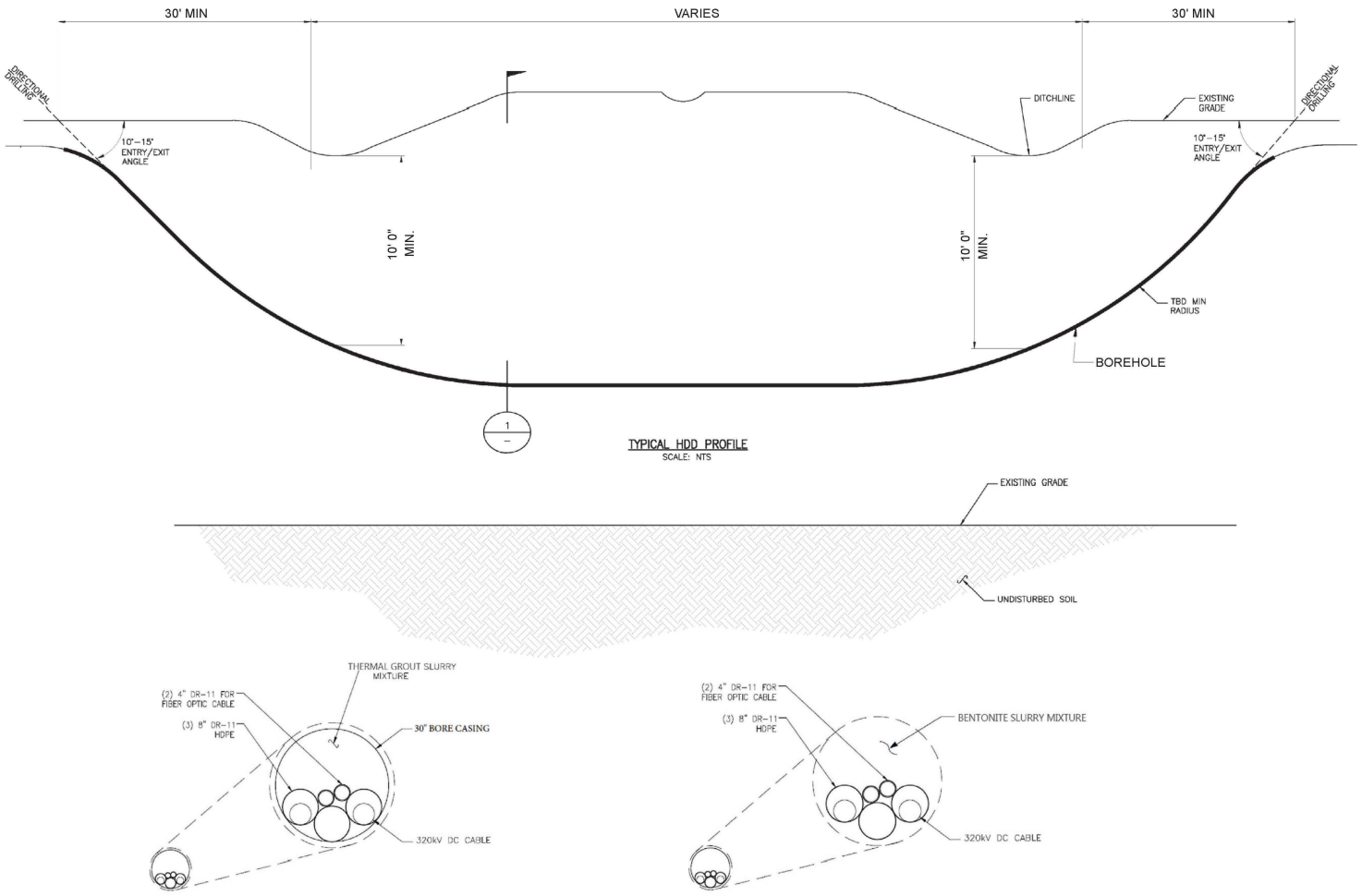
Figure 2-14
Typical 320 kV DC Horizontal Bore Diagrams



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SOURCE: LSPGC, 2023

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Figure 2-15
Typical Horizontal Directional Drilling Diagram

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Dewatering and hazardous waste management are discussed further in Section 2.8.9, *Water Use and Dewatering*; Section 2.8.10, *Hazardous Materials and Management*; and Section 2.8.11, *Waste Generation and Management*. As discussed in **Table 2-13**, *Applicant-Proposed Measures* (see Section 2.15), Applicant-proposed Measures (APMs) HAZ-1 and HAZ-2 have been included for a site-specific spill prevention, control, and countermeasure plan (SPCCP) and a hazardous materials management plan (HMMP), and APM WQ-1 describes dewatering procedures and measures. Additionally, LSPGC would implement the following BMPs during the construction of trenchless crossings:

- Prior to trenchless construction activities, drilling mud and bore lubricant control, monitoring, and containment measures would be established and remain in place until after trenchless construction activities are complete.
- Spoils would be stored at least 25 feet from any body of water and contained by a sediment barrier and plastic sheeting where practical.
- If using spoils as backfill, pits would be stabilized after backfilling is complete.
- Drilling fluid would be stored in water-tight containers when not in use.
- Emergency spill/fracturing kits would be staged near trenchless construction equipment.

Proposed Grove to Skyline 320 kV Transmission Line

The proposed Grove to Skyline 320 kV Transmission Line includes four proposed trenchless crossings: three horizontal bore locations (under existing railroad lines) and one HDD location (under an existing concrete culvert for Fisher Creek). These trenchless crossings are shown in Figures 2-3a through 2-3d. The specific horizontal bore or HDD details would be refined during the final engineering process.

Horizontal Bore (Jack-and-Bore or Micro-tunneling)

The proposed Grove to Skyline 320 kV Transmission Line would require three horizontal bore crossings. Figure 2-14 shows a horizontal bore operation, along with its components and dimensions. Horizontal bore crossings for the proposed Grove to Skyline 320 kV Transmission Line would include the following elements (duct banks are described further below):

- A 36-inch casing pipe.
- Three 8-inch ducts (two ducts for the installed cable and one duct as a spare).
- Two 2-inch ducts for fiber optic cables.
- A wheel assembly with spacers to keep the ducts properly spaced within the casing.

Horizontal Directional Drilling

The proposed Grove to Skyline 320 kV Transmission Line would require one HDD crossing under Fisher Creek. Figure 2-15 depicts an HDD operation, along with its components and dimensions. The HDD crossing for the proposed Grove to Skyline 320 kV Transmission Line would include the following elements (duct banks are described further below):

- Three 10-inch ducts (two ducts for the installed cable and one duct as a spare).
- Two 4-inch ducts for the fiber optic cables.

Either the ducts would be pulled through the unreinforced bore hole or a 30-inch casing pipe would be installed. Should a casing pipe be used, the ducts would be pulled through the casing and the remaining space would be backfilled with a thermal grout.

Proposed Metcalf to Grove 500 kV Transmission Line

The proposed Metcalf to Grove 500 kV Transmission Line would include one HDD crossing under Coyote Creek, shown in Figure 2-3d. The specific HDD details would be refined during the final engineering process.

Horizontal Directional Drilling

Based on preliminary engineering, for the HDD crossing under Coyote Creek for the proposed Metcalf to Grove 500 kV Transmission Line, individual HDD bore holes would be required under Coyote Creek to separate the XLPE cables to meet the Project's required voltage ratings. Hence, four bore holes would be drilled under Coyote Creek, with a spacing of approximately 20 feet between bore holes. The HDD crossing for the proposed Metcalf to Grove 500 kV Transmission Line would include the following elements (duct banks are described further below):

- Six 10-inch ducts (three ducts for the installed cable and three ducts as a spare—one spare in each bore hole).
- Four 4-inch ducts (two for fiber optic cables, one for a ground wire, and one for a spare).

Either the ducts would be pulled through the unreinforced bore hole or a 30-inch casing pipe would be installed. Should a casing pipe be used, the ducts would be pulled through the casing and the remaining space would be backfilled with a thermal grout.

2.8.5.5 Watercourse Crossings

The proposed HVDC terminals would be located on existing agricultural and vacant land, and no watercourses have been identified at both terminal locations. The proposed Grove to Skyline 320 kV Transmission Line would be sited within existing road ROWs and would cross the inactive Coyote Alamitos Canal and a concrete culvert (Fisher Creek) that feeds into Coyote Creek. The Coyote Alamitos Canal would be crossed using conventional open trenching techniques. If conventional trenching over or under the culvert is not feasible, LSPGC would use horizontal bore or HDD trenchless techniques as required. The proposed Grove to Skyline 320 kV Transmission Line would be installed under the Fisher Creek culvert using HDD construction.

As stated previously, the proposed Metcalf to Grove 500 kV Transmission Line would cross Coyote Creek and would require HDD construction. The proposed Metcalf to Grove 500 kV Transmission Line would be installed under Valley Water's existing Coyote Canal—which crosses Coyote Ranch Road—using open trenching techniques. If conventional trenching over or under the culvert is not feasible, LSPGC would use horizontal bore or HDD trenchless techniques as required.

The proposed Skyline to San Jose B 230 kV Transmission Tie Line would be a short connection to PG&E's existing San Jose B Substation and would not cross any watercourses.

Construction timing would be closely coordinated with Valley Water (which manages the creek and owns some of the land in and alongside Coyote Creek in the Project area) so that work would be completed in a manner that would not adversely affect the creek's overall function during flow releases from Anderson Dam and during the rainy season.

2.8.6 Facility Installation or Modification

2.8.6.1 HVDC Terminals

Construction of the Project's terminal sites would occur in a phased approach beginning with site development, followed by below-grade construction, above-grade construction, and equipment installation, and finally the testing of electrical equipment. All necessary surveys, marking, and installation of stormwater management features (e.g., silt fence, fiber rolls) would be completed before clearing and grubbing activities for site development. In addition, during site development, fencing, gates, and driveways would be installed (some on a temporary basis) to provide site security during construction activities.

After site development, all necessary below-grade construction—installation of structure and equipment foundations, underground ducts, and the ground grid—would begin. Once earthwork and below-grade activities have been completed, above-grade construction and equipment installation would take place. The enclosure would be erected, and major equipment and structures would be installed and anchored on their respective foundations. Major electrical and terminal equipment, such as the converter transformers, would be delivered to the terminal site and placed directly on foundations.

Other terminal equipment, such as HVDC equipment, riser structures, bus, conduit, cable trench, and rebar, would be received and temporarily stored at a staging area before installation. Transmission line terminations and distribution connections would be installed as part of the above-grade facilities. After construction, temporary disturbance areas would be recontoured to match preconstruction grades.

Construction of the Project's proposed transmission lines would begin at the same time as site development of the proposed terminals. Construction work would generally occur in a linear fashion with multiple crews for duct banks, splice vaults, trenchless crossings, and cable installation working simultaneously at different locations along the route. As noted above, the crews would be located along the route in a manner that would minimize impacts.

2.8.6.2 Existing PG&E Substations

For removals and modifications at the existing PG&E Metcalf and San Jose B substations, PG&E's construction sequence described in this Section is preliminary. At the time of publication of this Draft EIR, the projected construction sequence for PG&E's San Jose B Substation begins with rough grading in the expansion area. A new fence would be installed to incorporate the additional area. All disturbed soils would be handled in accordance with the developed plan for waste generation and management, and the construction crew would abide by permitting, cultural, and environmental requirements. Rough grading would be followed by the installation of concrete support foundations.

In parallel, ground grid conductors, conduit for high-voltage cables, and low-voltage control wiring would be installed below grade. Electrical enclosures, transformers, and steel structures would be installed and anchored to their appropriate foundation. Specific to electrical enclosures, equipment would be assembled, installed, and anchored inside each of the equipment enclosures. Namely, high-voltage GIS, protection relays, communication equipment, fiber optic, and control cable would be installed. Specific to transformers and the installation of insulating oil, spill prevention plans would be maintained.

Finally, all control cables would be pulled to interconnect the new and existing equipment. Upon the installation of all equipment, PG&E would conduct a series of electrical tests on all newly installed equipment before energization.

At the time of publication of this Draft EIR, the projected construction sequence for PG&E's Metcalf Substation would begin with the installation of a security wall north of the existing yard. Once the substation is physically secure with the new wall, the existing northern wall would be removed. Then, the substation's proposed expansion area would be graded according to Project design and needs. In parallel, underground ground grid conductors and conduits would be installed. All disturbed soils would be handled in accordance with the developed plan for waste generation and management, and the construction crew would abide by permitting, cultural, and environmental requirements. Rough grading would be followed by installation of concrete foundations, then steel mounting, to support equipment. Electrical equipment would then be mounted on the support structures, including high voltage circuit breakers, disconnect switches, transformers, and the overhead conductor.

Other work involves the installation of indoor control equipment that includes equipment protection relays, meters, control equipment, and communication devices. Finally, all control cables would be pulled to interconnect the new and existing equipment. Upon the installation of all equipment, PG&E would conduct a series of electrical tests on all newly installed equipment before energization.

2.8.7 Public Safety and Traffic Control

2.8.7.1 Public Safety

Construction and staging areas for the proposed HVDC terminals would be fenced to restrict public access to each site. All open holes or trenches associated with the proposed underground transmission lines would be covered at the end of the day to protect the public and construction workers. Public access restrictions would be maintained throughout the construction period and restrictions that would affect public ROWs would be coordinated with local agencies. Public access restrictions would range from a few days or weeks for trenching operations to up to the full duration of construction (approximately 27 months). Public access restrictions for the proposed HVDC terminals would be maintained throughout construction (approximately 2 years) and operation. Public safety, with regard to traffic controls on roadways and trails, is discussed below. BMPs regarding public safety are addressed in Section 2.15, *Applicant-Proposed Measures and Best Management Practices*.

2.8.7.2 Traffic Control

During construction and deliveries, traffic control plans, or TCPs, may be implemented intermittently along Coleman Avenue, Santa Teresa Street, and Ryland Street for the Skyline HVDC terminal and along Monterey Road for the proposed Grove HVDC Terminal. Lane closures may be necessary along these roads when equipment is being delivered to the Project site. These TCPs would be temporary and short-term based on delivery schedules.

To allow an adequate work area for constructing the proposed underground transmission lines, temporary closures of sidewalks, lanes, roads, trails, paths, and/or driveways would be necessary where the proposed transmission line would be located within existing roads or trails. These restrictions would be temporary and traffic detours could be necessary. Temporary routes, timing, and processes for detour locations would be identified in the TCPs that LSPGC would develop in consultation with the applicable local agencies (e.g., city of San José). TCPs would govern proposed underground transmission line construction within public roadways throughout the construction period; however, traffic control measures such as lane closures and detours would be temporary and short-term in any given location, as underground construction would move along the alignment in a linear fashion.

Signage, flaggers, and/or other traffic control measures would be used to guide traffic around active work areas safely. All TCPs and encroachment permits would be reviewed and approved by the city of San José and Santa Clara County as appropriate and would be provided to the CPUC before implementation. TCPs are based on final approved project designs and are typically prepared immediately before construction, when encroachment permit applications are submitted to the local agency.

2.8.7.3 Security

Physical security for the proposed HVDC terminal stations would be designed in accordance with North American Electric Reliability Corporation Critical Infrastructure Protection requirements with monitoring, response, and control provided 24 hours a day, 7 days a week, through the LSPGC control center and staff. Each proposed HVDC terminal site would include a security wall that would be at least 8 feet tall to protect the facility from environmental and physical threats. The perimeter security wall would include a 24-foot-wide gate. Access to the proposed HVDC terminal and enclosures would be restricted. The proposed HVDC terminal design would include indoor and outdoor physical security cameras placed throughout the site. Terminal lighting would be photocell and motion controlled to provide illumination for security. LED lights would be mounted on A-frames, H-frames, structures, poles, and enclosures as required.

During construction, perimeter security fencing would be installed around the outer limits of the proposed HVDC terminals' work areas and staging areas. Lighting would also be installed for security purposes. A security professional may also monitor the construction sites where materials are stored, which may include the proposed HVDC terminal sites, staging areas, and ROW, when construction personnel are not present.

2.8.7.4 Livestock

Livestock would not likely be encountered during Project construction or operation. Therefore, specific livestock fencing, guards, or other similar protective measures for the Project would not be required.

2.8.8 Dust, Erosion, and Runoff Controls

2.8.8.1 Dust

During construction, migration of dust from the construction sites would be limited by control measures set forth by the APMs provided in Section 2.15, *Applicant-Proposed Measures and Best Management Practices*. These measures may include the use of water trucks and other dust control measures, including the application of nontoxic soil binders.

2.8.8.2 Erosion

The Project would disturb more than one acre of soil. LSPGC would be required to prepare, file, and implement a SWPPP in accordance with the State of California's General Permit for Stormwater Discharges Associated with Construction Activities (Order WQ 2022-0057-DWQ). The SWPPP would include measures to prevent and minimize erosion and off-site transport of pollutants from construction activities. The SWPPP would designate BMPs that would be followed during construction to help stabilize disturbed areas and reduce erosion, sedimentation, and pollutant transport.

2.8.8.3 Runoff

To manage runoff, the Project would include a stormwater drainage and conveyance system and a stormwater detention system at the location of each terminal. The size of the detention system would vary for each proposed HVDC terminal site, depending on site-specific conditions, and may include a detention basin, underground detention vaults, or a combination thereof. The terminal pad would be graded to drain toward the stormwater conveyance system to ultimately direct stormwater into the detention system. The stormwater detention system would not be lined, allowing for infiltration and groundwater recharge. The system would be designed to capture runoff from the 100-year storm, 24-hour rainfall event and then release the captured water. Overflow from the detention system would be returned to sheet flow via a level spreader, which would provide for sheet flow of the stormwater to the adjacent land surface during storms that exceed the system's design capacity. The level spreading approach would control erosion and prevent scouring at discharge locations.

The proposed HVDC terminal sites, including the drainage and detention basin, would be stabilized during construction using SWPPP BMPs. These BMPs would be described in the SWPPP prepared for Project construction activities. The SWPPP would be prepared before construction and would be tailored to the Project's final approved design. The BMPs in the SWPPP would be monitored and revised throughout the construction process as needed to respond to field conditions.

2.8.9 Water Use and Dewatering

2.8.9.1 Water Use

Minimal water use would be required for the Project since a substantial amount of the required work would occur on paved roads. Water would be used regularly for dust control in the staging areas and at proposed HVDC terminal sites but would be used less frequently for dust control during duct bank construction. Water used for construction activities, such as for dust suppression and compaction requirements, would be trucked in from a nearby off-site location.

As discussed further in Section 3.19, *Utilities and Service Systems*, the Project's water demand would be served by regional water suppliers such as San José Municipal Water, San José Water, and Great Oaks Water Company. Additionally, there is an existing groundwater well at the proposed Grove HVDC Terminal site that is proposed for water supply during Project construction. According to the current property owner of the Grove HVDC Terminal site, existing use of the groundwater well for irrigation is approximately 10 acre-feet (3,258,514 gallons) per year (LSPGC 2025). Given these water sources, it is anticipated that there would be sufficient water supply for the Project's water needs, as discussed further in Section 3.19.

Up to 16 million gallons of water would be used during the 24-month construction process, primarily during the site development and below-grade construction phases at the proposed HVDC terminal sites. Of this projected total water use, 12 million gallons would be used for dust control while 4 million gallons would be used for site development and below-grade construction.

Estimated water use during construction of each Project component would be 6.5 million gallons for the proposed Grove HVDC Terminal site, 4.5 million gallons for the proposed Skyline HVDC Terminal site, 400,000 gallons at the existing PG&E San Jose B Substation, 600,000 gallons at the existing PG&E Metcalf Substation, and 4 million gallons for construction and installation of the proposed transmission lines. Construction-related water use would be temporary and the water would originate from a local source with the existing capacity to service the Project's needs. Specific water sources for trucked water would be determined before construction in coordination with the water suppliers based on the availability and proximity of supplies.

In addition to the potential use of potable water, recycled or reclaimed water or groundwater would be used in accordance with applicable regulations and acquired permits to meet the Project's construction needs. Construction crews would be responsible for providing their own drinking water during construction.

Minimal water would be necessary to facilitate the restoration of temporarily affected areas after the completion of construction. The existing groundwater well at the proposed Grove HVDC Terminal site would be used during Project operation and maintenance for irrigation of the 150 orchard trees that would remain in place after construction. As discussed previously, Project construction would entail the removal of approximately 2,850 trees and retention of 150 trees along the frontage of Monterey Road at the proposed Grove HVDC Terminal site. The proposed change from 3,000 trees to 150 trees would be a reduction of 95 percent, for a substantial reduction in irrigation needs on-site.

Beyond operation and maintenance-related irrigation needs, the Project would not require water sources for operation and maintenance activities, because the terminal facilities would be operated remotely with no permanent workforce on-site. LSPGC personnel would be responsible for providing their own drinking water during operation and maintenance activities.

2.8.9.2 Dewatering

Dewatering would be conducted using a pump or well points. Groundwater encountered during underground construction would be pumped either into water trucks for haul-off or directly into containment tanks (e.g., Baker tanks) that allow acceptable de-sedimentation before discharge and tested for turbidity, pH, and other required parameters. The groundwater would be discharged into the storm sewer system when the water meets quality standards in accordance with applicable regulations and acquired permits, or it would be hauled off for disposal if quality standards are not met. Discharge may also be applied to flat, vegetated, upland areas, used for dust control, or used in other suitable construction operations (e.g., concrete mixing) if testing determines that the water is suitable for such use in accordance with applicable regulations and acquired permits. All dewatering activities would fit within the designated temporary work areas and/or staging areas, as described in Section 2.8.5.

2.8.10 Hazardous Materials and Management

2.8.10.1 Hazardous Materials

Project construction would require the limited use of hazardous materials, such as fuels, lubricants, cleaning solvents, and chemicals. All hazardous materials would be stored, handled, and used in accordance with applicable regulations. Safety Data Sheets would be made available to all workers at the construction site(s). Based on the volume of hazardous liquid materials, such as fuel, that would be stored and dispensed at a staging area, an SPCCP may be required (in accordance with applicable provisions of Code of Federal Regulations Title 40, Parts 112.1–112.7). Should preexisting hazardous waste be encountered on the Project site, it would be removed and disposed of in a manner consistent with applicable federal and state regulations. Herbicides or pesticides would not be used during construction. As shown later in this chapter in Table 2-13 (see Section 2.15), APMs HAZ-1 and HAZ-2 have been included for a site-specific SPCCP and HMMP.

2.8.10.2 Hazardous Materials Management

Before construction, an SPCCP and HMMP would be prepared for the Project, describing hazardous materials use, transport, storage, management, and disposal protocols. Project construction would not begin until these plans are complete. The plans would be prepared in accordance with relevant federal and state guidelines and regulations (e.g., Cal/OSHA). The HMMP would include the following information related to hazardous materials and waste, as applicable:

- A list of hazardous materials present on-site during construction and operation and maintenance, which would be updated as needed along with product Safety Data Sheets and other information regarding storage, application, transportation, and disposal requirements.

- A hazardous materials communication plan.
- Standards for any secondary containment and countermeasures that would be required for hazardous materials.
- Spill response procedures based on product and quantity. The documentation of these procedures would include the materials to be used, the location of such materials within the Project area, and disposal protocols.
- Protocols for the management, testing, reporting, and disposal of potentially contaminated soils or groundwater observed or discovered during construction. This would include termination of work within the area of suspected contamination sampling by an Occupational Safety and Health Administration (OSHA)–trained individual and testing at a certified laboratory.

2.8.11 Waste Generation and Management

2.8.11.1 Solid Waste

Solid waste generated during construction would be primarily nonhazardous waste, including wood, metal, paper, and plastic packaging. Construction debris volumes would total approximately 2,000 CY. Solid waste generated during Project construction would be collected at the point of creation, transported to a staging area, and then temporarily stored at a staging area as the solid waste awaits salvage, recycling, and/or disposal. Solid waste would be sorted, and recyclable and nonrecyclable materials would be stored separately in the staging areas. During trenching excavations, the excavated material would be loaded onto trucks and transported to an approved disposal facility or reuse location.

Construction waste would be disposed of properly and in accordance with all applicable federal, state, and local laws regarding solid and hazardous waste, such as the California Integrated Waste Management Act of 1989, which has set reduction rates for the amount of solid waste sent to landfills. Construction waste that cannot be recycled would ultimately be disposed of at the Newby Island Sanitary Landfill, the Kirby Canyon Landfill, the Ox Mountain Landfill, the Guadalupe Landfill, or another approved facility.

Project earthwork would require cut and fill, and excess material after completion of grading and excavation would total approximately 143,000 CY. During trenching excavations, minimal excavated material would be used to backfill; most of the excavated material would not be reused. Cut material from terminal and substation site grading would be used as fill on-site, where possible. LSPGC would transport excess soil to landfills that recycle excess soil materials as part of their operations (as opposed to disposing of the soils as waste), where possible. Landfills would determine their capacity for recycling in the future, closer to the time of disposal. Pavement waste produced from trench excavation would be transported to an appropriate recycling facility in the area. Where possible, recyclable construction material would be transported to an approved recycling facility.

2.8.11.2 Liquid Waste

Liquid waste streams generated by the Project would consist primarily of sanitary waste, dewatering effluent, drilling fluids, and stormwater runoff. Sanitary waste from self-contained portable toilets would be routinely pumped and transported by licensed sanitary waste services for off-site disposal at their contracted treatment, storage, and disposal facilities. Sanitary waste would be generated at a rate of 50–100 gallons per week for every 10 workers on-site. Drilling fluid would be disposed of at the Altamont Pass Landfill or another approved facility.

2.8.11.3 Hazardous Waste

As discussed previously, Project construction would require the limited use of hazardous materials, such as fuels, lubricants, cleaning solvents, and chemicals. Additionally, the Project would include transformers containing mineral oil, which is considered a hazardous material by the State of California. The Project would include the removal of three PG&E distribution wood poles. The poles to be removed may have been treated with chemicals (e.g., penta oil, creosote, chemonite, and/or chromated copper, depending on the year of installation), which for certain uses and quantities can be considered regulated hazardous materials. Therefore, disposal of the wood poles would require specific testing and handling procedures prescribed by federal and state regulations. Additional potentially hazardous waste sources that could be encountered during construction include contaminated soils, incidental spill waste, and concrete washout.

Waste generated or encountered would be handled, contained, and disposed of according to federal, state, and local regulations. In addition, before construction, an HMMP would be prepared describing protocols for the use, transport, storage, management, and disposal of hazardous materials. This could include containerization in U.S. Department of Transportation–approved vessels, review of relevant Safety Data Sheets, use of secondary containment, and training of material handlers to ensure worker safety and the reduction of cross contamination. Off-site disposal would occur at the Clean Harbors San José Facility or another approved facility. It is not anticipated that herbicides or pesticides would be used during construction.

The proposed Skyline HVDC Terminal site currently has a Covenant and Environmental Restriction on Property (Covenant), which is dated May 9, 2017 (recorded by San Francisco Bay Regional Water Quality Control Board). The Covenant identifies that subsurface soils on the subject property have been impacted by metals, petroleum hydrocarbons, and semi-volatile organic compounds as a result of past operation of a former railroad maintenance and fueling facility. The Covenant sets forth protective provisions, covenants, conditions, and restrictions on the proposed Skyline HVDC Terminal property that are necessary to protect present and future human health and safety or the environment resulting from the presence of hazardous materials on the property. The Covenant further identifies that implementation of the approved site management plan would successfully mitigate potential risks from soil exposure during construction and operation and maintenance.

The site management plan includes the following precautionary procedures to minimize exposure:

- A full-time observation service would be required during demolition and excavation work.
- Soils excavated during construction would be observed for discoloration/staining or olfactory evidence of contaminant impacts.
- A photoionization detector (PID) would be used to further screen soils for potential contaminants, and to monitor ambient air during excavation work. The specific locations of air monitoring would be field adjusted based on potential access and safety limitations but would generally include locations within the excavation area and the perimeter of the excavation.
- PID readings would generally be recorded at least every hour whenever suspect material is encountered.
- Any PID reading for volatile organics measured at 100 parts per million above background for more than 3 minutes would result in a stop-work order.
- The PID would provide real-time data on the presence of potentially hazardous compounds to ensure the proper selection of personal protection equipment. In the event significant unforeseen environmental conditions are discovered, work would stop and the personal protection equipment level would be reevaluated.
- Impacted soils, if encountered, would be stockpiled on-site in volumes of approximately 100–250 CY. The soil stockpiles would be covered with 10-mil plastic sheeting and secured to prevent dust or runoff during storm events. Depending on the laboratory results, the stockpiles would either be transported for landfill disposal or reused on-site as encapsulated engineered fill.

2.8.12 Fire Prevention and Response

2.8.12.1 Fire Prevention and Response

The Project area is located 2 miles west of a high fire threat area (San Felipe Hills), as identified by the California Department of Forestry and Fire Protection and the CPUC. Under Section 35 of General Order 95, the CPUC regulates all aspects of design, construction, and operation and maintenance of electrical power lines and fire safety hazards for utilities subject to its jurisdiction (CPUC 2020). In addition, the Fire Prevention Standards for Electric Utilities (California Code of Regulations Title 14, Sections 1250–1258) provide definitions, maps, specifications, and clearance standards for projects under the jurisdiction of Public Resources Code Sections 4292 and 4293 in State Responsibility Areas.

The Project would be designed and constructed so that the proposed HVDC terminals would be in compliance with all applicable federal and state regulations. The Project components would not be located in a State Responsibility Area. If required based on final design or permits, a construction fire prevention plan (or equivalent) would be prepared before construction based on final design and the approved Project footprint.

2.8.12.2 Fire Breaks

During construction activities that are considered "hot work" (e.g., welding, grinding, or any other activity that creates hot sparks), LSPGC would implement a 10-foot buffer around that activity and vegetation would be cleared to ensure that sparks do not create a fire hazard. For activities that do not produce sparks but still have the potential to produce a fire hazard, LSPGC would implement a 5-foot buffer to be cleared of vegetation, and additional details (i.e., handling sparks) would be provided in the construction fire prevention plan or equivalent construction specification.

2.9 Construction Workforce, Equipment, Traffic, and Schedule

2.9.1 Construction Workforce

Construction of the proposed HVDC terminal facilities and transmission lines is expected to occur simultaneously. The construction workforce and equipment deployed for the Project would be similar to those of other transmission lines and terminal construction projects of this size. A maximum of approximately 60 workers would be employed at a single construction site at one time. Peak employment would be approximately 250 workers, but on average, the workforce on-site would be less. Up to 15 crews could be working simultaneously to complete the proposed underground transmission line activities mentioned above and work at the proposed HVDC terminal sites. For the proposed underground transmission line activities, multiple crews for duct banks, splice vaults, trenchless crossings, and cable installation would work simultaneously at different locations along the route. The workers would likely commute from within the Greater Bay Area.

Table 2-7, *Construction Equipment and Workforce*, lists the expected equipment and personnel by construction activity and provides a brief construction work plan summary for each activity. It also lists the uses of the equipment for each construction phase. Not all equipment and personnel listed may be used during all portions of each specified activity. Additional personnel or other equipment may be identified during final Project design or implemented during construction as needed, based on site conditions.

2.9.2 Construction Equipment

Table 2-8, *Project Construction Equipment and Their Uses*, presents a full list of the equipment that would be used during Project construction and identifies its uses. In addition to the equipment listed, pickup trucks and construction worker vehicles would travel daily to and from the work areas for each Project component.

TABLE 2-7
CONSTRUCTION EQUIPMENT AND WORKFORCE

Work Activity				Activity Production					
Equipment Description	Estimated Horsepower	Probable Fuel Type	Equipment Quantity	Estimated Workforce	Number of Crews	Estimated Start Date	Estimated End Date	Duration of Use, Hours/Day	Percent of Days Equipment is Used
GROVE AND SKYLINE HIGH-VOLTAGE DIRECT CURRENT TERMINALS									
Survey									
Pickup—Half-Ton	395	Gas	1	2	2	March 2026	May 2026	4	95%
Material Delivery									
Tractor Trailer	500	Diesel	1	5	2	March 2026	November 2027	8	50%
Heavy Hauler Moving Truck	600	Diesel	1					8	20 days
Mobile Crane	260	Diesel	1					8	40%
Forklift/Loader	275	Diesel	1					8	50%
Pickup—1-Ton and Trailer	410	Diesel	2					2	90%
Roadwork, Site and Staging Preparation									
Truck—Water, 4,000-Gallon	300	Diesel	2	20	2	March 2026	June 2026	10	95%
Loader—4- to 5-Yard	275	Diesel	2					8	80%
Truck—Dump, 10- to 12-Yard	415	Diesel	6					5	80%
Motor Grader	250	Diesel	1					8	80%
Roller	405	Diesel	2					8	80%
Pickup—Half-Ton	395	Gas	3					6	100%
Pickup—1-Ton	410	Diesel	3					6	95%
Backhoe	70	Diesel	1					8	80%
Discing Tractor and Machine	640	Diesel	1					8	5%
Skid Steer	74.3	Diesel	1					4	80%
Potholing Machine (Hydro Vacuum Excavator)	525	Diesel	1					8	10 days
Excavating Scraper	407	Diesel	1					6	90%
Generator—25 kW	45	Diesel	2					10	95%
Security Vehicle	158	Gas	1					24	100%
Bulldozer (CAT D5 Equivalent)	170	Diesel	1					7	30%

TABLE 2-7
CONSTRUCTION EQUIPMENT AND WORKFORCE

Work Activity				Activity Production					
Equipment Description	Estimated Horsepower	Probable Fuel Type	Equipment Quantity	Estimated Workforce	Number of Crews	Estimated Start Date	Estimated End Date	Duration of Use, Hours/Day	Percent of Days Equipment is Used
Below-Grade Construction									
Truck—Water, 4,000-Gallon	300	Diesel	2	30	2	July 2026	October 2026	10	95%
Excavator	275	Diesel	2					8	90%
Forklift—8,000- to 9,000 lb Reach	100	Diesel	1					4	75%
Backhoe—2x4	68	Diesel	2					5	75%
Pickup—Half-Ton	395	Gas	3					6	100%
Pickup—1-Ton	410	Diesel	3					6	100%
Excavator—Mini	70	Diesel	2					8	75%
Generator—25 kW	45	Diesel	2					10	100%
Loader—4- to 5-Yard	275	Diesel	2					8	75%
Pressure Digger—Lo-Drill (Tracked)	275	Diesel	2					8	60%
Truck—Dump, 10- to 12-Yard	415	Diesel	2					4	75%
Tool—Van/Conex, 20-Foot	0	NA	6					10	75%
Trencher	75	Diesel	2					5	75%
Security Vehicle	158	Gas	1					24	100%
Roller	405	Diesel	2					3	75%
Concrete Truck	430	Diesel	2					6	40%
Concrete Crane Pourer	430	Diesel	1					8	25%
Above-Grade Construction and Equipment Installation									
Pickup—Half-Ton	395	Gas	3	30	2	November 2026	December 2027	6	100%
Pickup—1-Ton	410	Diesel	3					6	100%
Welding Truck	395	Diesel	2					6	50%
Generator—25 kW	45	Diesel	2					10	100%
Crane—35-Ton	250	Diesel	2					8	90%
Forklift—10,000 lb Reach	130	Diesel	2					8	90%
Forklift—15,000 lb	130	Diesel	2					8	90%

TABLE 2-7
CONSTRUCTION EQUIPMENT AND WORKFORCE

Work Activity				Activity Production					
Equipment Description	Estimated Horsepower	Probable Fuel Type	Equipment Quantity	Estimated Workforce	Number of Crews	Estimated Start Date	Estimated End Date	Duration of Use, Hours/Day	Percent of Days Equipment is Used
Manlift—40-Foot	49	Diesel	3					8	85%
Manlift—120-Foot	74	Diesel	2					8	75%
Security Vehicle	158	Gas	1					24	100%
GROVE TO SKYLINE 320-KILOVOLT DIRECT CURRENT UNDERGROUND TRANSMISSION LINE									
Survey/Potholing									
Pickup—Half-Ton	395	Gas	2	7	2	March 2026	February 2027	8	95%
Potholing Machine (Hydro Vacuum Excavator)	525	Diesel	1					8	95%
Vaults									
Pickup—Half-Ton	395	Gas	2	8	2	April 2026	May 2027	5	95%
Pickup—1-Ton	410	Diesel	1					5	95%
Excavator	275	Diesel	1					8	80%
Backhoe—2x4	68	Diesel	1					8	70%
Loader—4- to 5-Yard	275	Diesel	1					8	70%
Compressor	100	NA	1					8	80%
Tractor Trailer	500	Diesel	1					6	20%
Mobile Crane	260	Diesel	2					2	20%
Truck—Dump, 10- to 12-Yard	415	Diesel	2					8	60%
Truck—Water, 4,000-Gallon	300	Diesel	1					4	80%
Concrete Truck	430	Diesel	2					8	30%
Duct Banks and Restoration									
Pickup—Half-Ton	395	Gas	3	11	6	April 2026	October 2027	5	95%
Pickup—1-Ton	410	Diesel	2					5	95%
Excavator	275	Diesel	1					8	80%
Backhoe	68	Diesel	1					8	70%
Loader	275	Diesel	1					8	70%

TABLE 2-7
CONSTRUCTION EQUIPMENT AND WORKFORCE

Work Activity				Activity Production					
Equipment Description	Estimated Horsepower	Probable Fuel Type	Equipment Quantity	Estimated Workforce	Number of Crews	Estimated Start Date	Estimated End Date	Duration of Use, Hours/Day	Percent of Days Equipment is Used
Compressor	100	NA	1					8	80%
Truck—Water, 4,000-Gallon	300	Diesel	1					8	90%
Asphalt Paver	235	Diesel	1					2	90%
Roller	405	Diesel	1					3	90%
Truck—Dump, 10- to 12-Yard	415	Diesel	2					8	95%
Truck—Water, 4,000-Gallon	300	Diesel	1					4	80%
Concrete Truck	430	Diesel	2					4	90%
Trenchless Crossings									
Horizontal Bore Machine	67	Diesel	1					8	60%
Pickup—Half-Ton	395	Gas	2					4	95%
Pickup—1-Ton	410	Diesel	2					4	95%
Excavator	275	Diesel	1	7	1	October 2026	January 2027	8	80%
Backhoe	68	Diesel	1					8	70%
Truck—Dump, 10- to 12-Yard	415	Diesel	2					8	80%
Truck—Water, 4,000-Gallon	300	Diesel	1					4	80%
Concrete Truck	430	Diesel	2					6	30%
Cable Installation									
Pickup—Half-Ton	395	Gas	1					3	95%
Pickup—1-Ton	410	Diesel	1					3	95%
Wire Trailer/Tensioner	175	Diesel	2					8	60%
Wire Puller	175	Gas	2	8	2	June 2027	January 2028	8	60%
Cable Splicing Truck	300	Diesel	1					8	40%
Generator—25 kW	45	Diesel	1					8	95%
Cable Splice Test Truck	300	Diesel	1					8	20%

TABLE 2-7
CONSTRUCTION EQUIPMENT AND WORKFORCE

Work Activity				Activity Production					
Equipment Description	Estimated Horsepower	Probable Fuel Type	Equipment Quantity	Estimated Workforce	Number of Crews	Estimated Start Date	Estimated End Date	Duration of Use, Hours/Day	Percent of Days Equipment is Used
METCALF TO GROVE 500-KILOVOLT ALTERNATING CURRENT UNDERGROUND TRANSMISSION LINE									
Survey/Potholing									
Pickup—Half-Ton	395	Gas	2	7	1	April 2027	May 2027	8	95%
Potholing Machine (Hydro Vacuum Excavator)	525	Diesel	1					8	95%
Vaults									
Pickup—Half-Ton	395	Gas	2	8	1	June 2027	August 2027	5	95%
Pickup—1-Ton	410	Diesel	1					5	95%
Excavator	275	Diesel	1					8	80%
Backhoe—2x4	68	Diesel	1					8	70%
Loader—4- to 5-Yard	275	Diesel	1					8	70%
Compressor	100	NA	1					8	80%
Tractor Trailer	500	Diesel	1					6	20%
Mobile Crane	260	Diesel	2					2	20%
Truck—Dump, 10- to 12-Yard	415	Diesel	2					8	60%
Truck—Water, 4,000-Gallon	300	Diesel	1					4	80%
Concrete Truck	430	Diesel	2					8	30%
Duct Bank and Restoration									
Pickup—Half-Ton	395	Gas	3	11	2	June 2027	August 2027	5	95%
Pickup—1-Ton	410	Diesel	2					5	95%
Excavator	275	Diesel	1					8	80%
Backhoe	68	Diesel	1					8	70%
Loader	275	Diesel	1					8	70%
Compressor	100	NA	1					8	80%
Truck—Water, 4,000-Gallon	300	Diesel	1					8	90%
Asphalt Paver	235	Diesel	1					2	90%

TABLE 2-7
CONSTRUCTION EQUIPMENT AND WORKFORCE

Work Activity				Activity Production					
Equipment Description	Estimated Horsepower	Probable Fuel Type	Equipment Quantity	Estimated Workforce	Number of Crews	Estimated Start Date	Estimated End Date	Duration of Use, Hours/Day	Percent of Days Equipment is Used
Roller	405	Diesel	1					3	90%
Truck—Dump, 10- to 12-Yard	415	Diesel	2					8	95%
Truck—Water, 4,000-Gallon	300	Diesel	1					4	80%
Concrete Truck	430	Diesel	2					4	90%
Horizontal Directional Drilling									
Pickup—Half-Ton	395	Gas	3	10	1	June 2027	August 2027	3	95%
Pickup—1-Ton	410	Diesel	2					3	95%
Excavator	275	Diesel	2					8	60%
Backhoe	68	Diesel	1					8	50%
Truck—Dump, 10- to 12-Yard	415	Diesel	3					8	50%
Truck—Water, 4,000-Gallon	300	Diesel	1					4	80%
Crane—60-Ton	450	Diesel	1					8	30%
Skid Steer	74.3	Diesel	1					4	80%
Tractor Trailer	500	Diesel	1					8	30%
Forklift—10,000 lb Reach	130	Diesel	2					5	70%
Asphalt Paver	235	Diesel	1					6	10%
Roller	405	Diesel	1					6	10%
Cable Installation									
Pickup—Half-Ton	395	Gas	1	8	1	September 2027	November 2027	3	95%
Pickup—1-Ton	410	Diesel	1					3	95%
Wire Trailer/Tensioner	175	Diesel	2					8	60%
Wire Puller	175	Gas	2					8	60%
Cable Splicing Truck	300	Diesel	1					8	40%
Generator—25 kW	45	Diesel	1					8	95%
Cable Splice Test Truck	300	Diesel	1					8	20%

TABLE 2-7
CONSTRUCTION EQUIPMENT AND WORKFORCE

Work Activity				Activity Production					
Equipment Description	Estimated Horsepower	Probable Fuel Type	Equipment Quantity	Estimated Workforce	Number of Crews	Estimated Start Date	Estimated End Date	Duration of Use, Hours/Day	Percent of Days Equipment is Used
OTHER									
Commissioning and Testing									
Pickup—Half-Ton	395	Gas	2	20	1	November 2027	October 2028	2	95%
Pickup—1-Ton	410	Diesel	2					2	95%
Generator—25 kW	45	Diesel	2					10	70%
Manlift—40-Foot	49	Diesel	3					8	50%
Tool—Van/Conex, 20-Foot		NA	6					10	80%
Forklift—10,000 lb Reach	130	Diesel	1					5	50%
Forklift—15,000 lb	49	Diesel	1					5	50%
PG&E Metcalf Substation Modifications and Connection									
Manlift—40-Foot	49	Diesel	1	10	1	October 2026	December 2027	10	70%
Forklift—10,000 lb Reach	130	Diesel	1					10	60%
Excavator—Mini	70	Diesel	1					5	70%
Loader—4- to 5-Yard	275	Diesel	1					5	70%
Pressure Digger—Lo-Drill (Tracked)	125	Diesel	2					8	50%
Pickup—Half-Ton	395	Gas	2					4	100%
Pickup—1-Ton	410	Diesel	2					4	95%
Welding Truck	395	Diesel	2					2	50%
Concrete Truck	430	Diesel	2					6	30%
PG&E San Jose B Modifications and Connection – 115 kV									
Pickup—Half-Ton	395	Gas	3	15	1	June 2026	December 2027	4	100%
Pickup—1-Ton	410	Diesel	3					4	95%
Truck—Water, 4,000-Gallon	300	Diesel	1					10	95%
Truck—Dump, 10- to 12-Yard	415	Diesel	2					5	20%
Potholing Machine (Hydro Vacuum Excavator)	525	Diesel	1					8	10 days

TABLE 2-7
CONSTRUCTION EQUIPMENT AND WORKFORCE

Work Activity				Activity Production					
Equipment Description	Estimated Horsepower	Probable Fuel Type	Equipment Quantity	Estimated Workforce	Number of Crews	Estimated Start Date	Estimated End Date	Duration of Use, Hours/Day	Percent of Days Equipment is Used
Skid Steer	74.3	Diesel	1					4	30%
Excavator	275	Diesel	1					8	30%
Backhoe—2x4	68	Diesel	1					5	50%
Excavator—Mini	70	Diesel	1					8	50%
Pressure Digger—Lo-Drill (Tracked)	275	Diesel	1					8	20%
Tool—Van/Conex, 20-Foot	0	NA	2					10	60%
Trencher	75	Diesel	1					5	20%
Roller	405	Diesel	1					3	10%
Concrete Truck	430	Diesel	2					4	15%
Generator—25 kW	45	Diesel	1					10	80%
Crane—35-Ton	250	Diesel	1					8	60%
Forklift—10,000 lb Reach	130	Diesel	1					8	50%
Forklift—15,000 lb	130	Diesel	1					8	50%
Manlift—40-Foot	49	Diesel	2					8	50%
Manlift—120-Foot	74	Diesel	1					8	50%
Welding Truck	395	Diesel	1					6	50%
PG&E San Jose B Modifications and Connection – 230 kV									
Pickup—Half-Ton	395	Gas	3					4	100%
Pickup—1-Ton	410	Diesel	3					4	95%
Truck—Water, 4,000-Gallon	300	Diesel	1					10	95%
Truck—Dump, 10- to 12-Yard	415	Diesel	2					5	20%
Potholing Machine (Hydro Vacuum Excavator)	525	Diesel	1	15	1	January 2028	March 2030	8	10 days
Skid Steer	74.3	Diesel	1					4	30%
Excavator	275	Diesel	1					8	30%
Backhoe—2x4	68	Diesel	1					5	50%

TABLE 2-7
CONSTRUCTION EQUIPMENT AND WORKFORCE

Work Activity				Activity Production					
Equipment Description	Estimated Horsepower	Probable Fuel Type	Equipment Quantity	Estimated Workforce	Number of Crews	Estimated Start Date	Estimated End Date	Duration of Use, Hours/Day	Percent of Days Equipment is Used
Excavator—Mini	70	Diesel	1					8	50%
Pressure Digger—Lo-Drill (Tracked)	275	Diesel	1					8	20%
Tool—Van/Conex, 20-Foot	0	NA	2					10	60%
Trencher	75	Diesel	1					5	20%
Roller	405	Diesel	1					3	10%
Concrete Truck	430	Diesel	2					4	15%
Generator—25 kW	45	Diesel	1					10	80%
Crane—35-Ton	250	Diesel	1					8	60%
Forklift—10,000 lb Reach	130	Diesel	1					8	50%
Forklift—15,000 lb	130	Diesel	1					8	50%
Manlift—40-Foot	49	Diesel	2					8	50%
Manlift—120-Foot	74	Diesel	1					8	50%
Welding Truck	395	Diesel	1					6	50%
PG&E Distribution Line Removal at Grove HVDC Terminal									
Pickup—Half-Ton	395	Gas	1	8	1	July 2026	August 2026	6	100%
Pickup—1-Ton	410	Diesel	1					6	95%
Crane—35-Ton (Manlift)	250	Diesel	2					8	95%
Forklift—10,000 lb Reach	130	Diesel	1					5	50%
PG&E Distribution Line Modifications at Skyline HVDC Terminal									
Pickup—Half-Ton	395	Gas	1	8	1	March 2026 2026	May 2026	4	100%
Pickup—1-Ton	410	Diesel	1					8	95%
Mobile Crane	260	Diesel	1					10	25%
Forklift—10,000 lb Reach	130	Diesel	1					5	25%
Excavator—Mini	70	Diesel	1					8	50%
Truck—Dump, 10- to 12-Yard	415	Diesel	2					5	50%
Skid Steer	74.3	Diesel	1					4	50%

TABLE 2-7
CONSTRUCTION EQUIPMENT AND WORKFORCE

Work Activity				Activity Production					
Equipment Description	Estimated Horsepower	Probable Fuel Type	Equipment Quantity	Estimated Workforce	Number of Crews	Estimated Start Date	Estimated End Date	Duration of Use, Hours/Day	Percent of Days Equipment is Used
Trencher	75	Diesel	1					5	50%
Truck—Water, 4,000-Gallon	300	Diesel	1					10	80%
Concrete Truck	430	Diesel	1					8	15%
Excavator	275	Diesel	1					8	30%
Wire Trailer/Tensioner	175	Diesel	1					8	40%
Wire Puller	175	Gas	1					8	40%
PG&E Distribution Line to the Grove HVDC Terminal									
Pickup—Half-Ton	395	Gas	1					4	100%
Pickup—1-Ton	410	Diesel	1					4	95%
Pressure Digger—Lo-Drill (Tracked)	275	Diesel	1					8	30%
Truck—Dump, 10- to 12-Yard	415	Diesel	2					4	30%
Crane—35-Ton (Manlift)	250	Diesel	2	8	1	August 2026	September 2026	8	60%
Forklift—10,000 lb Reach	130	Diesel	1					2	50%
Manlift—40-Foot	49	Diesel	2					8	50%
Wire Trailer/Tensioner	175	Diesel	1					8	30%
Wire Puller	175	Gas	1					8	30%
Staging Areas									
Pickup—Half-Ton	395	Gas	1					6	100%
Pickup—1-Ton	410	Diesel	1					6	95%
Truck—Water, 4,000-Gallon	300	Diesel	1	5	3	March 2026	February 2028	8	95%
Mobile Crane	260	Diesel	1					8	40%
Forklift—10,000 lb Reach	130	Diesel	2					8	75%
Security Vehicle	158	Gas	1					24	100%

NOTES: kW = kilowatt; lb = pound; NA = not applicable; PG&E = Pacific Gas and Electric Company
SOURCE: LSPGC 2025

TABLE 2-8
PROJECT CONSTRUCTION EQUIPMENT AND THEIR USES

Equipment Type	Equipment Use
Air compressor	Operate air tools.
Asphalt grinder	Grind asphalt.
Asphalt paver	Restoration.
Backhoe	Excavate trenches.
Boom truck	Access poles and other height-restricted items; lift/set steel.
Bucket truck/manlift	Set steel; install equipment; use as a guard structure.
Bulldozer	Grade access roads and terminal sites; demolition; excavate and backfill walls.
Cable dolly	Pull cable.
Cable dolly (trailer)	Transport reels of cable (no engine; can be pulled by assist truck).
Compactor	Compact soil; clear/grub/finish.
Concrete boom crane pump truck	Pour concrete at a distance away from the truck.
Concrete truck	Transport and pour concrete.
Crane	Lift/position equipment and materials.
Diesel generator	Provide power for construction activities.
Discing tractor and machine	Loosen soil for terminal sites.
Drilling rig/truck-mounted auger	Excavate for direct-bury poles; excavate trenches.
Dump truck	Haul excavated materials/import backfill, as needed.
Excavating scraper	Grade pads and access roads.
Excavator	Excavate soils/materials (trenching).
Forklift	Transport materials at construction sites and staging areas.
Grader	Grade and move soil; restore original contours.
HDD machine	Install trenchless crossings.
Heavy hauler moving truck	Transport large equipment to site.
Jackhammer	Break concrete and asphalt.
Horizontal bore machine	Install trenchless crossings.
Loader	Demolition; load dump trucks.
Pickup truck	Transport construction personnel and material.
Portable generator	Operate power tools, work trailers, and terminal sites.
Potholing machine (hydro vacuum excavator)	Verify the locations of existing utilities.
Pressure digger	Excavate for poles and foundations; excavate trenches.
Pulling rig/wire puller	Pull cables into duct.
Reel trailer/wire trailer	Feed new conductor to wire puller.
Relay/telecommunication van	Transport and support construction personnel.
Roller	Repair streets and compact soil.
Scraper	Grade pads and access roads.
Security vehicle	Provide site security.
Skid steer	Excavate trenches; move material.
Splice truck/trailer	Store splicing supplies.
Street sweeper	Clean paved roads.

TABLE 2-8
PROJECT CONSTRUCTION EQUIPMENT AND THEIR USES

Equipment Type	Equipment Use
Tensioner	Control conductor at pulling tension during pulling operation.
Tool van/Conex	Store tools.
Tractor/trailer unit	Transport materials to sites and staging areas.
Trencher	Trench for underground lines.
Water truck	Provide water for dust suppression and other construction needs.
Welding truck	Hold equipment and material for field welding.
Wire truck	Hold spools of wire.

NOTE: HDD = horizontal directional drilling
SOURCE: LSPGC 2025

2.9.3 Construction Traffic

As discussed previously, for the proposed Skyline HVDC Terminal, all construction vehicles and equipment would enter the Project area from Santa Teresa Street at an access point at the western terminus of Ryland Street. Vehicles would turn onto Santa Teresa Street, a north-south access road, from Coleman Avenue. For the proposed Grove HVDC Terminal, all construction vehicles and equipment would enter the site from Monterey Road.

Some disruption to traffic flow may occur when trucks enter or exit the Project area using the access roads, but such events would be periodic and temporary. Signage, flaggers, or other traffic control measures would be used to reduce potential disruptions to traffic flow and to maintain public safety during construction. Workers would generally park their vehicles in one of the staging areas, although some worker vehicle parking may occur on-site during construction of the proposed underground transmission line within existing roads. Heavy truck traffic on city-maintained roadways would require a City of San José traffic control permit.

The peak vehicle trips would occur during the duct bank excavation and transmission line installation (e.g., site development and below-grade construction activities), given the number of crews and the need to haul away or import fill. Total maximum daily vehicle trips (i.e., round trips) during this phase would be 500 trips per day: 300 truck trips and 200 worker trips.

Other construction periods would have lower average numbers of worker vehicle trips and therefore would have correspondingly lower impacts. **Table 2-9**, *Estimated Average Daily Construction Traffic*, outlines the average daily truck and worker-related vehicle trips, as well as the vehicle miles traveled per construction phase.

Vehicle trips generated by construction personnel would generally occur with workers arriving at the site in the morning and leaving the site at the end of the day, with limited worker-related trips to or from the worksite during the day. Construction activities would occur Monday through Saturday during daylight hours. To reduce the potential number of daily worker-related vehicle trips to and from the site, the Project would encourage carpooling where practicable.

TABLE 2-9
ESTIMATED AVERAGE DAILY CONSTRUCTION TRAFFIC

Construction Phase	Average Daily Truck Trips	Average Daily Worker Trips	Average Daily Truck VMT	Average Daily Worker VMT	Total Daily Average VMT
Grove HVDC Terminal					
Survey	2	2	80	54	134
Material delivery	3	5	300	135	435
Road work, site, and staging preparation	25	18	750	540	1,290
Below-grade construction	15	27	450	810	1,260
Above-grade construction and equipment installation	10	27	300	810	1,110
Skyline HVDC Terminal					
Survey	2	2	80	54	134
Material delivery	3	5	300	135	435
Road work, site, and staging preparation	25	18	750	540	1,290
Below-grade construction	15	27	450	810	1,260
Above-grade construction and equipment installation	10	27	300	810	1,110
Grove to Skyline 320 kV Transmission Line					
Surveying/potholing	8	13	240	378	618
Vaults	40	14	1,200	432	1,632
Duct banks and restoration	120	59	3,000	1,782	4,782
Trenchless crossings	20	6	500	189	689
Cable installation	24	14	720	432	1,152
Metcalf to Grove 500 kV Transmission Line					
Surveying/potholing	6	6	180	189	369
Vaults	20	7	600	216	816
Duct banks and restoration	40	20	1,000	594	1,594
Cable installation	12	7	360	216	576
Other Construction Activities					
Commissioning and testing	6	18	180	540	720
PG&E Metcalf Substation upgrades and connection	5	9	150	270	420
PG&E San Jose B Substation upgrades and connection	12	14	360	405	765
Use of staging areas	30	14	900	405	1,305

NOTES:

AC = alternating current; DC = direct current; HVDC = high-voltage direct current; kV = kilovolt; PG&E = Pacific Gas and Electric Company; VMT = vehicle miles traveled

- The table assumes that workers live approximately 15 miles away from the worksite. This assumption is based on the area's suburban character and the proximity of recreational vehicle parks.
- Worker trips are commute trips by workers.
- Truck trips are trips moving from one site to another site. This does not include miles traveled on the Project site.
- Truck trips include water trucks, dump trucks, traffic control trips, and equipment delivery trips.
- The table is based on the landfill locations relative to the Project area.

SOURCE: LSPGC 2025

2.9.4 Construction Schedule

Project construction would take approximately 24 months to complete, depending on unforeseen/unpredictable factors such as weather. Construction is anticipated to begin in March 2026 and run through February 2028, with post-energization performance testing continuing through October 2028. **Table 2-10**, *Preliminary Construction Schedule*, summarizes the complete construction schedule, outlined by task. See Table 2-7 for additional information regarding the construction schedule for each Project component.

TABLE 2-10
PRELIMINARY CONSTRUCTION SCHEDULE

Phase/Activity	Start Date	End Date	Approximate Number of Workdays
Construction of HVDC Terminals			
Site development (includes survey, road work, site and staging area preparation)	March 2026	June 2026	80
Below-grade construction	July 2026	October 2026	80
Above-grade construction and equipment installing	November 2026	December 2027	350
Commissioning and testing	November 2027	May 2028	160
Post-energization performance testing	June 2028	October 2028	110
Construction of Transmission Lines			
Construction mobilization and surveying	March 2026	February 2027	300
Grove to Skyline 320 kV Transmission Line	April 2026	January 2028	550
Metcalf to Grove 500 kV Transmission Line	April 2026	November 2027	500
Commissioning and testing	December 2027	February 2028	60
Existing Substation Upgrades			
PG&E Metcalf Substation	December 2026	May 2027	130
PG&E San Jose B Substation*	December 2026	June 2028	550

NOTES:

AC = alternating current; DC = direct current; HVDC = high-voltage direct current; kV = kilovolt; PG&E = Pacific Gas and Electric Company

* PG&E would continue to conduct upgrades to the existing PG&E San Jose B Substation through 2030, however, components needed to accommodate the Project (i.e., energization) would be completed by June 2028.

SOURCE: LSPGC 2025

As shown in Table 2-10, construction of the proposed HVDC terminals would occur concurrently and would begin with site development, which would include surveying, access road work, and preparation of the sites and staging areas. Below-grade construction at the terminal sites would generally begin after site development is complete, followed by above-grade construction and equipment installation. Construction of the proposed transmission lines would begin at the same time as site development of the terminals and would generally occur in a linear fashion.

2.9.5 Work Schedule

Project construction activities would generally be scheduled to occur during daylight hours 6 days per week (Monday through Saturday). However, given the large amount of construction proposed within existing roads, local municipalities may require that transmission line construction occur at night within certain areas of the Project to reduce traffic impacts and the duration of construction. In addition, night work may be required during portions of the trenchless construction (e.g., during jacking and pullback operations) to allow for continuous operation. Nighttime construction would be most likely to occur within commercial and industrial areas, not residential areas.

All work hours for the proposed underground transmission lines and trenchless crossings would be coordinated with the applicable municipalities. Construction activities would occasionally be scheduled outside of normal hours to avoid or reduce schedule delays, complete construction activities such as continuous concrete pours, accommodate the schedule for system outages, address safety concerns, or to address emergencies.

Construction at the proposed HVDC terminal sites would proceed uninterrupted Mondays through Saturdays for the duration of the Project's construction period. For the proposed underground transmission line activities, work would generally move in a linear fashion, with multiple crews for duct banks, splice vaults, trenchless crossings, and cable installation working simultaneously in different locations along the route.

2.10 Post-construction

2.10.1 Configuring and Testing

A final commissioning and testing plan would be coordinated with PG&E and CAISO to ensure the system's reliability during energization of the Project. Generally, commissioning and testing would begin with pre-commissioning activities that would include equipment fit-up inspections, electrical and mechanical tests, and simple function tests to ensure that the equipment is connected properly. The protection/control systems for the proposed HVDC terminals and transmission lines would be tested in accordance with Project requirements.

After pre-commissioning of the proposed HVDC terminals and associated transmission lines, each proposed HVDC terminal would be energized individually, followed by the energization of the proposed Grove to Skyline 320 kV Transmission Line connecting the terminals. To energize the proposed HVDC terminals, the transmission lines to the nearby existing PG&E substations are first energized, and followed by transformer energization. After confirmation that the transformer is working properly, functional tests would begin on the terminals to ensure that the power electronic devices operate as designed. This includes various performance tests to ensure that the proposed HVDC terminals are able to meet all necessary electrical output. During the performance tests, the terminal cooling systems are tested to confirm adequate cooling of applicable power electronic devices. A similar sequence would be implemented to energize both terminals.

Once commissioning and testing is complete for both new HVDC terminals, the proposed Grove to Skyline 320 kV Transmission Line connecting the terminals would be energized. Next, additional

performance tests would be conducted to ensure that the terminals are able to meet all necessary electrical output. Post-energization performance testing would continue through approximately October 2028. The personnel and equipment that would be used for commissioning and testing, along with the duration of use, are identified in Table 2-7.

2.10.2 Landscaping

Most of the Project components would be installed underground in city streets or other urban areas. Along the proposed underground transmission line routes, landscaping would be restored to preexisting conditions as needed. Substation and terminal sites would be surrounded by a security wall with minimal landscaping. Approximately 150 existing orchard trees along Monterey Road, at the proposed Grove HVDC Terminal site, would be retained to provide visual screening and landscaping. These orchard trees would require irrigation, which would use the existing on-site water well. A much smaller number of orchard trees would remain in place (150) compared to the existing number of orchard trees on-site (3,000). Thus, the irrigation water use would be much less than under existing conditions.

Additional landscaping would not be installed unless required by a local government or other jurisdictional agency. When required, landscaping would consist of drought-resistant plants to minimize the need for watering and other maintenance. Any additional landscaping would also use the existing on-site water well for irrigation.

2.10.3 Demobilization and Site Restoration

2.10.3.1 Demobilization

Upon the completion of construction, demobilization would begin. First, all equipment not needed for the remaining testing and revegetation would be removed. Once all post-energization performance testing is complete, all temporary construction structures (e.g., office trailers, portable toilets) and remaining construction and testing equipment would be removed. Next, all remaining temporarily disturbed work areas would be restored to their preconstruction conditions.

2.10.3.2 Site Restoration

LSPGC would restore all temporarily disturbed areas to preconstruction conditions. Construction debris and waste would be removed and transported off-site to an approved disposal facility, as explained in Section 2.8.11, *Waste Generation and Management*. Any type of Project waste materials that are routinely recycled would be recycled in an appropriate fashion at an approved disposal facility. LSPGC would conduct a final inspection to ensure that cleanup activities are completed successfully.

Areas disturbed by grading, augering, or equipment movement would be restored to their original contours and drainage patterns. Work areas would be de-compacted by loosening the soil and the salvaged topsoil would be re-spread after recontouring to aid in the restoration of temporarily disturbed areas. Revegetation activities would be conducted in accordance with the Project's SWPPP and APMs.

Additional restoration efforts may include preparing the site for future utility uses. Erosion control measures may be required and would also be implemented in accordance with the Project's SWPPP and APMs. Disturbed roads would be reconstructed to the specifications of the relevant transportation authority. Reconstruction would involve restoring all removed curbs, gutters, and sidewalks and all removed or damaged paved surfaces, including the wear surface, striping, and signage.

2.11 Operation and Maintenance

2.11.1 Regulations and Standards

Project operation and maintenance activities would be conducted in accordance with all applicable requirements of the Federal Energy Regulatory Commission, North American Electric Reliability Corporation, the CPUC, and CAISO, and with the National Electrical Safety Code, National Electrical Code, OSHA requirements, and other applicable regulations and standards. Additionally, because the Project is not located within a high-fire-threat area as identified by the California Department of Forestry and Fire Protection or the CPUC, a project-specific wildfire management plan is not required for operation and maintenance activities. However, LSPGC would prepare a wildfire management plan for its existing California projects before their energization and this plan would be updated to include the Power Santa Clara Valley Project before its energization.

The new transmission lines would also follow all applicable CPUC General Orders, particularly General Order 128, which governs the construction and maintenance of underground electric lines. The Project would also comply with CAISO standards for inspection, maintenance, repair, and replacement.

2.11.2 System Controls and Operation Staff

During operation and maintenance, the Project would be remotely monitored and operated by LSPGC's control center in Austin, Texas, which is staffed 24 hours a day, 7 days a week. Local maintenance/technical staff, consisting of existing LSPGC staff and external resources, would provide maintenance and emergency response. The Project would also be monitored by CAISO's control center in Folsom, California, and CAISO would have operational control of the proposed HVDC terminals with authority to direct LSPGC's control center.

The Project would have a SCADA/energy management system architecture that would be designed to receive and store the data used for Project operation, equipment health monitoring, and predictive maintenance. It would consist of fully redundant servers, power supplies, and Local Area Network connections, routers, and switches. Should any equipment malfunction, operation and maintenance personnel would be dispatched to the site to investigate the problem and take appropriate corrective action.

LSPGC would hire one technician to be located near the Project site to perform routine inspections, monitoring, and repairs. LSPGC would also have two other technicians located in California for LSPGC's other projects who would assist in operation and maintenance of the Project facilities, if

needed. Day-to-day management of the Project would be provided by LSPGC's asset management team from remote control centers.

2.11.3 Inspection Programs

2.11.3.1 LSPGC Facilities

General Inspection Programs and Standards

LSPGC would comply with CAISO standards for inspection through its existing maintenance policies and procedures and by leveraging the experience of its affiliate, Desertlink. LSPGC would also have an approved transmission maintenance and inspection plan to comply with the provisions of the Orchard static synchronous compensator (STATCOM) and Fern Road GIS/STATCOM projects, which are currently under construction.

Before energization, the Project would be incorporated into LSPGC's existing maintenance policies and procedures. These policies and procedures include a transmission maintenance plan and protection system maintenance program.

Additionally, an HVDC-specific maintenance plan would be developed based on the manufacturer's recommendations. The transmission maintenance plan and HVDC-specific maintenance plan would detail items such as frequency and type of inspections, components to be inspected, qualifications of inspectors, and recordkeeping. LSPGC's protection system maintenance program would contain maintenance and testing procedures for applicable protection system component types in compliance with North American Electric Reliability Corporation Standard PRC-005-6, as well as internal LSPGC standards for system protection. The maintenance and testing procedures are based on manufacturers' recommendations, national standards, good utility practice, and North American Electric Reliability Corporation guidance documents.

Project-Specific Inspections

Each major Project component (e.g., HVDC terminals, transmission lines) would have specific inspection plans that would detail inspection items, the inspection period, and qualifications for staff members required to perform the inspections. In general, equipment at the proposed HVDC terminals would undergo monthly visual inspections in accordance with manufacturers' recommendations. Project-specific inspections are described further in Section 2.11.4, *Operation and Maintenance Programs*.

2.11.3.2 PG&E Facilities

PG&E would continue regular inspections at its existing San Jose B and Metcalf substations.

2.11.4 Operation and Maintenance Programs

2.11.4.1 LSPGC Facilities

Once construction is complete, the Project would not be occupied daily. As stated previously, the proposed HVDC terminals would be monitored and controlled by LSPGC's control centers. A

perimeter wall would enclose the proposed HVDC terminal facilities, and all access gates would be locked to prevent entry by unauthorized individuals. Signage would be posted on the exterior and at the entryway to the proposed HVDC terminal facilities to further restrict access.

As also described previously, LSPGC would hire one additional California-based technician to accommodate the integration and operation and maintenance of the Project. The technician would perform minor repairs and oversee the outside contractors conducting Project maintenance. Repairs would be performed in accordance with the manufacturer's recommendations.

Should any equipment or parts need to be replaced, LSPGC would maintain critical spare parts and materials required to repair system facilities, such as HVDC valves, control panels, protection panels, a cooling system, and medium-voltage equipment. The spare-parts inventory would supplement the more than 3 percent redundant HVDC valve submodules that would be included as installed spares. Space for a spare transformer and phase reactor would be accounted for at each proposed HVDC terminal site and would be shared between the three transformers and six reactors, respectively.

The proposed HVDC terminals would be taken out of service periodically for equipment maintenance according to manufacturer recommendations. Given the diversity of equipment and the individual system components, a small team would execute the maintenance requirements. Inspection and maintenance would be performed by a crew of one to two high-voltage technicians and one to two personnel provided by the equipment vendor, with support provided by LSPGC staff. Inspections and maintenance would be performed both from the ground and from manlifts within the proposed HVDC terminals.

The transmission line inspections would be performed by qualified technicians through sensors, and splice vault inspections. A crew of two or more technicians and equipment vendor experts would periodically inspect the underground vaults visually and electrically from within the splice vaults. Two or more technicians would periodically inspect the overhead transmission line from the ground. Should any issues be found during inspections, maintenance would be performed on the transmission line component as required.

Operation and maintenance impacts of the Project on surrounding utilities would be studied, and any cathodic protection required as a result of the Project would be coordinated with the affected utility. If required, landscaping would be designed to require little to no maintenance.

LSPGC would regularly inspect, maintain, and repair the Project and access roads after the completion of Project construction. These inspections would monitor vegetation growth, road conditions, and water drainage conditions. Maintenance of these access roads would include vegetation trimming, road surface renewal, ditch cleaning, and water management practices, all on an as-needed basis.

2.11.4.2 PG&E Facilities

PG&E would continue regular operation and maintenance activities at its existing San Jose B and Metcalf substations.

2.11.5 Vegetation Management Programs

The vegetation management process can be split into three different subcategories: inspection, planned vegetation treatment, and emergency vegetation treatment. Inspections would vary in frequency from annually to every 5 years, depending on factors such as monitoring protocols and permit requirements. These inspections would be conducted by ground and air, as necessary. During the inspections, any encroachments would be noted and prioritized based on risk level.

Routine vegetation management would not likely be required for the proposed underground transmission lines, given that the proposed transmission line would be located primarily within city streets. If tree roots, water intrusion, and other naturally occurring environmental encroachments were to affect the proposed underground transmission line, encroaching vegetation would be removed to ensure the integrity of the proposed transmission line.

Planned vegetation treatment includes herbicide spraying (where permitted), removal of excessive growth, ROW mowing, ROW side cutting, removal of encroaching trees, and vegetation removal to mitigate wildfire risks.[11] Crews would conduct this work using mechanical equipment consisting of weed trimmers, rakes, chain saws, shovels, and leaf blowers.

Emergency vegetation treatment would be conducted when any vegetation encroaches within the 10-foot line clearance. This requirement would apply only to overhead lines. With the Skyline to San Jose B 230 kV Transmission Tie Line being the Project's only proposed overhead transmission line, no vegetation is expected to be present near the transmission tie line given its proposed location within the proposed Skyline HVDC Terminal site. LSPGC would inspect the proposed HVDC terminals annually to determine whether brush clearing is required.

2.12 Decommissioning

2.12.1 Decommissioning

2.12.1.1 LSPGC Facilities

The Project would be in operation or use indefinitely, with no currently established plans or timing for decommissioning. Therefore, there are no reasonably foreseeable plans for the disposal, recycling, or future abandonment of Project facilities.

2.12.1.2 PG&E Facilities

PG&E facilities are not subject to decommissioning and would be retained as long as they are useful.

[11] In accordance with fire break clearance requirements in Public Resources Code Section 4292 and California Code of Regulations Title 14, Section 1254, LSPGC would trim or remove flammable vegetation in the area surrounding the Project site and all other safety hazards.

2.13 Electric and Magnetic Fields

Extremely low frequency (ELF) electric and magnetic fields (EMF) include AC fields and other electromagnetic, non-ionizing radiation from 1 Hz to 300 Hz. Power lines, like electrical wiring and electrical equipment, produce EMFs at 60 Hz (OSHA 2025). In 1991, the CPUC initiated an investigation (Order Instituting Investigation [OII] 91-01-012) to consider its role in mitigating the health effects, if any, of electric and magnetic fields from utility facilities and power lines. A working group of interested parties, the California EMF Consensus Group, was created by the CPUC to advise on this issue. Based on the work of the California EMF Consensus Group, written testimony, and evidentiary hearings, the CPUC issued a decision (D.93-11-013) on November 2, 1993 to address public concern about possible EMF health effects from electric utility facilities. Subsequently, on August 26, 2004, the CPUC initiated a rulemaking (R.04-08-020) to address public concern regarding EMF exposure, resulting in a decision issued on January 26, 2006 (D.06-01-042) which provided:

> *"We find that the body of scientific evidence continues to evolve. However, it is recognized that public concern and scientific uncertainty remain regarding the potential health effects of EMF exposure. We do not find it appropriate to adopt any specific numerical standard in association with EMF until we have a firm scientific basis for adopting any particular value".*

This remains the position of the CPUC regarding standards for EMF exposure. The State has not determined that any risk would merit adoption of any specific limits or regulations regarding EMF levels from electric power facilities. Presently, there are no applicable federal, state, or local regulations related to EMF levels from transmission lines or related facilities, such as substations, and thus, the Project.

2.14 Anticipated Permits and Approvals

2.14.1 Intended Uses of This EIR

This Environmental Impact Report (EIR) is intended to provide information and describe the environmental consequences of the Project in accordance with CEQA requirements for public disclosure and to assist public agency decision-makers in considering the approvals necessary for implementing the Project. The federal, state, and local agency permits and approvals that would be required for the Project are listed in Section 2.14.2, *Anticipated Permits and Approvals*. The Project would also obtain any other regulatory approvals required by law.

As the lead agency and regulator of utility infrastructure within the Project area, the CPUC would be involved with the Project through a Project approval action (e.g., CPCN), as well as through management assistance for some Project elements. The section below discusses and presents a preliminary list of potential approvals needed for Project construction and operation.

2.14.2 Anticipated Permits and Approvals

The CPUC is the lead California state agency for the Project's compliance with CEQA. LSPGC must comply with CPUC General Order 131-D, Section III-B, which contains the permitting requirements for construction of the Project (CPUC 2023). LSPGC prepared a PEA as part of an application (A.24-04-017) filed with the CPUC to obtain a CPCN for the Project. Although PG&E is not an applicant in LSPGC's application for a CPCN, PG&E's scope of work is included herein because the Project, as described above, would interconnect to PG&E's electrical grid.

In addition to the CPCN, LSPGC may be required to obtain several other permits from federal, state, and local agencies. **Table 2-11**, *Anticipated Permits and Approvals*, lists the permits, approvals, and licenses that the Project may be required to obtain from jurisdictional agencies.

TABLE 2-11
ANTICIPATED PERMITS AND APPROVALS[1]

Agency	Permit/Approvals[2]	Permit Trigger	Application Process	Timing
City of San José	Traffic control plan	Partial closure and/or encroachment within city roads.	Submit traffic control plan to the city of San José for review and approval.	Before the start of construction requiring traffic control.
City of San José	Encroachment permit	Construction within city roads or ROWs.	Submit application to the city of San José for review and approval.	Before the start of construction within city roads or ROW.
City of San José	Administrative use permit	Standby/backup generator that does not exceed noise or air quality standards within the Downtown Zoning District.	Submit application to the city of San José for review and approval.	Before the start of construction.
City of San José	Grading permit (non-discretionary)	Grading for the terminal sites.	Submit application to the city of San José for review and approval.	Before the start of construction of the terminal sites.
Santa Clara County	Tree removal approval	Removal of any tree from the county's right-of-way.	Submit application to Santa Clara County for approval.	Before the start of construction within county ROW.
Santa Clara County	Encroachment permit	Work within County roads or ROW.	Submit application to Santa Clara County for review and approval.	Before the start of construction within county roads or ROW.
Santa Clara County	Traffic control plan	Closure or use of traffic control on county roads.	Submit traffic control plan to Santa Clara County for review and approval.	Before the start of construction requiring traffic control.
Santa Clara County	Grading permits (non-discretionary)	Grading for the proposed Grove HVDC Terminal site.	Submit application to Santa Clara County for review and approval.	Before the start of construction of the terminal sites.
Santa Clara Valley Water District	Encroachment permit	Work on or near Valley Water land, easement, or facility.	Submit application to Valley Water for review and approval.	Before the start of construction within or near Valley Water property.
California Department of Transportation	Encroachment permit	Construction under Caltrans roads or with Caltrans ROWs.	Submit application to Caltrans for review and approval.	Before the start of construction within or near Caltrans ROW.

TABLE 2-11
ANTICIPATED PERMITS AND APPROVALS[1]

Agency	Permit/Approvals[2]	Permit Trigger	Application Process	Timing
California Department of Industrial Relations, Division of Occupational Safety and Health, Mining and Tunneling Unit	Classification of new underground project	Installation of new underground boring or pipejacking greater than 30 inches in diameter.	Submit notification and required information to the Mining and Tunneling Unit, District 1.	Before bidding for construction of the applicable underground feature.
California Department of Fish and Wildlife	Section 2081 incidental take permit or Section 2080.1 consistency determination	Potential take of species listed under the California Endangered Species Act.	Submit application to CDFW for review and approval.	Before the start of construction.
U.S. Fish and Wildlife Service	Section 7 or Section 10 incidental take permit	Potential take of federally listed species, in compliance with the federal Endangered Species Act.	Submit a biological assessment or HCP to USFWS for review and approval.	Before the start of construction.
Federal Aviation Administration	Code of Federal Regulations Title 14, Part 77 Notification	Construction of overhead facilities potentially requiring aerial lighting or marking.	Submit notification (FAA Form 7460-1) to FAA.	Before the start of construction.
State Water Resources Control Board	Clean Water Act, National Pollutant Discharge Elimination System General Permit for Discharge of Construction Related Stormwater	Requirement for a SWPPP for stormwater discharges associated with construction activities that disturb more than 1 acre of land.	Prepare SWPPP and submit Notice of Intent with the State Water Board.	Before the start of construction.
Union Pacific Railroad	New Wireline Crossing Authorization	Installation of new underground transmission line under Union Pacific's existing railroad via horizontal bore.	Submit application to Union Pacific for review and approval.	Before the start of construction within or near Union Pacific ROW.
Santa Clara Valley Transportation Authority	Construction access permit and light rail restricted access permit	Installation of new underground transmission line under VTA's existing light rail system via horizontal bore.	Submit application to VTA for review and approval.	Before the start of construction within or near VTA ROW.

NOTES:

Caltrans = California Department of Transportation; CDFW = California Department of Fish and Wildlife; City = city of San José; CPCN = Certificate of Public Convenience and Necessity; CPUC = California Public Utilities Commission; FAA = Federal Aviation Administration; HCP = habitat conservation plan; PEA = Proponent's Environmental Assessment; ROW = right-of-way; SWPPP = Stormwater Pollution Prevention Plan; USFWS = U.S. Fish and Wildlife Service; Valley Water = Santa Clara Valley Water District; VTA = Santa Clara Valley Transportation Authority

1. Permit requirements in this table apply only to LSPGC and are separate from applicable permits for Pacific Gas and Electric Company (PG&E) upgrades and modifications.
2. Permits/approvals in this table are potentially required and do not necessarily represent a comprehensive list of all possible permits/approvals required for the Project. In addition, some permits in this table may not be ultimately required.

SOURCE: LSPGC 2025

2.14.3 Rights-of-Way or Easement Applications

LSPGC has acquired two parcels of land and would acquire four additional land parcels through the purchase of privately owned parcels, totaling approximately 24 acres, for construction and operation and maintenance of the proposed HVDC terminals.

In addition to the land purchase transactions, additional ROW, franchise, or easement rights would be required for the two proposed underground transmission lines for the Project. These requirements are summarized in **Table 2-12**, *Permanent Land and Right-of-Way Requirements*.

TABLE 2-12
PERMANENT LAND AND RIGHT-OF-WAY REQUIREMENTS

Project Component	Length (miles)	Area (acres)
Grove to Skyline 320 kV DC Transmission Line	13	6
Metcalf to Grove 500 kV AC Transmission Line	1.2	1
Total	**14.2**	**7**

NOTES: AC = alternating current; DC = direct current; kV = kilovolt
SOURCE: LSPGC 2025

Because PG&E and LSPGC are subject to the CPUC's jurisdiction, they must also comply with Public Utilities Code Section 851. Among other things, this code provision requires these utilities to obtain the CPUC's approval when they convey certain utility property, including utility-owned property, to third parties. Obtaining the CPUC's approval for a Section 851 application requires compliance with CEQA. If required, LSPGC would file a Section 851 application. PG&E would also seek approval under Section 851 if PG&E conveys utility property rights to a third party.

2.15 Applicant-Proposed Measures and Best Management Practices

Although PG&E is not an applicant in the CPCN application proceeding, and therefore would not be subject to the APMs listed in **Table 2-13**, PG&E would still comply with a separate list of construction BMPs and/or APMs as set forth in Section 2.15.2, *PG&E Best Management Practices*.

2.15.1 Applicant-Proposed Measures

LSPGC would be responsible for overseeing the construction and environmental teams that would implement the Project APMs. LSPGC would manage construction to allow for implementation of the APMs to be monitored, documented, and enforced during each Project phase, as appropriate. All those contracted by LSPGC to perform this work would be provided with the relevant permits, conditions, and APMs, along with instructions for properly implementing the APMs to ensure their effectiveness in reducing potential environmental effects.

Implementation of the proposed APMs would be the responsibility of the environmental compliance and construction teams. The environmental compliance team would include an environmental project manager, resource specialists, and environmental monitors, as needed. All APMs would be implemented consistent with applicable federal, state, and local regulations. The environmental compliance team would be responsible for the inspection, documentation, and reporting of LSPGC's compliance with all APMs as proposed. Environmental specialists would be retained as needed to verify that all APMs are implemented properly during the construction phase.

In addition to the APMs listed below, the Project would also implement standard BMPs, such as the following:

- The public would be restricted from entering construction work areas, both along the proposed transmission lines and at the proposed HVDC terminal sites.
- Public access restrictions would be maintained throughout the duration of construction activities at a given location.
- Each construction contractor would submit safety plans to LSPGC for review and approval before the start of construction activities.
- For work associated with the proposed underground transmission lines in existing roads, temporary fences would be erected around open trenches and bore pits that are open for an extended period of time. Open trenches would be steel plated during non-working hours.
- All crossings of existing utilities would be done in a manner that would ensure that proper separations are maintained and that proper supports are in place during the installation process.
- Road barriers, signage, and flaggers would be used around construction areas in accordance with the applicable TCP. The TCP would allow the transit of emergency response and maintenance vehicles.
- As practicable, the crews would be located along the route in a manner that would minimize impacts.

Any spills or hazardous materials would be addressed according to the SWPPP, SPCCP, and HMMP to ensure public safety. If conditions occur where construction would have the potential to adversely affect a known or previously unknown environmentally sensitive resource, or if construction activities substantially deviate from Project requirements, LSPGC monitors and/or contract administrators would have the authority to halt construction activities, if needed, until an alternative method or approach can be identified. Any concerns that arise during implementation of the APMs would be communicated to the appropriate authority to determine whether corrective action is required, or the concerns would be addressed on-site, as applicable. As the proposed APMs are implemented, environmental monitors from LSPGC would review and document such activities. Field notes and digital photographs would be used to document and describe the status of APMs, as necessary.

TABLE 2-13
APPLICANT-PROPOSED MEASURES

APM Number	Description
Aesthetics	
APM AES-1: Maintenance of Construction Areas	All Project construction sites shall be maintained in a clean and orderly state. Temporary construction and permanent security nighttime lighting shall be directed away from residential areas and have shields to prevent light spillover effects. Upon completion of Project construction, staging and temporary work areas shall be returned to pre-Project conditions, including re-grading of the site and re-vegetation or re-paving of disturbed areas to match pre-existing contours and conditions.
APM AES-2: Site Design and Landscape Management Plan	A Site Design and Landscape Management Plan shall be developed for the Skyline and Grove terminals and could include, but not be limited to, the following requirements: • Structures and equipment at the proposed HVDC terminals shall have a non-reflective finish and a beige, grayish hue, or neutral earth-tone colors to the extent practicable. • Existing vegetation along the proposed Grove terminal western site boundary shall remain and be maintained unless safety and security would be compromised. • Consideration of local guidance documents, where applicable, such as the City of San José Guadalupe River Park & Gardens Urban Design Guidelines (2003), unless safety and security would be compromised, or if it would interfere with the future operations and maintenance of the facility.
Air Quality	
APM AQ-1: Construction Fleet Minimum Requirements and Tracking	LSPGC shall ensure that at least 75 percent of equipment horsepower hours related to off-road construction equipment include Tier 4 interim or Tier 4 final emissions controls. An initial listing that identifies each off-road unit's certified tier specification to be operated on the Project shall be submitted to the CPUC before the start of construction activities. Construction activities shall not begin until the equipment listing has been submitted to the CPUC. As LSPGC requires new or replacement construction equipment on the Project, LSPGC shall document verification of the certified engine tier before their use on Project sites. Before the start of construction, LSPGC shall develop a diesel-powered equipment-use hours tracking tool and procedure. The tracking tool shall be utilized by LSPGC to keep track of the certified engine tier and daily equipment use hours of all off-road diesel-powered equipment. If all diesel-powered equipment is Tier 4 certified, the tracking tool is not required. The tracking tool shall be maintained by LSPGC, and tracking updates shall be submitted to the CPUC on a monthly basis to track the Project's compliance. The updated tracking tool shall be submitted to the CPUC no later than the tenth day of the following month.
APM AQ-2: Dust Control Best Management Practices (BMPs)	LSPGC shall implement the following measures, as needed, to control fugitive dust during construction activities: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. The watering regiment may be adjusted during rain events as needed. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt tracked out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph). • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. • Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. • All trucks and equipment, including their tires, shall be washed off or otherwise cleaned prior to leaving the site. • Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel. • Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

TABLE 2-13
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM AQ-3: Naturally Occurring Asbestos Compliance	LSPGC shall ensure that construction activities comply with existing regulations pertaining to naturally occurring asbestos (NOA), including the CARB Airborne Toxic Control Measures (ACTMs) for NOA, when construction activities have the potential to encounter NOA. ACTM for NOAs include dust control measures consistent with APM AQ-2.
Biological Resources	
APM BIO-1: Restoration of Disturbed Areas	Once construction is complete in a given area, natural vegetation areas that are temporarily disturbed by Project activities shall be restored to approximate preconstruction conditions. Areas that are temporarily disturbed by grading, augering, or equipment movement shall be restored to their original contours and drainage patterns. Work areas shall be decompacted, and salvaged topsoil materials shall be respread following recontouring to aid in restoration of temporary disturbed areas. Revegetation activities shall be conducted in accordance with the Project SWPPP and APMs. Restoration could include recontouring, reseeding, and planting replacement of natural vegetation, as appropriate. Temporarily disturbed natural vegetation areas shall be revegetated with appropriate weed-free native seed mixes or species that are characteristic of the plant community that was disturbed.
APM BIO-2: Rare Plant Surveys	Protocol surveys and preconstruction surveys shall be conducted within all Project impact areas, and suitable buffers shall be established within suitable habitat areas for special-status plants. In the event of the discovery of a special-status plant, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, LSPGC shall consult with the USFWS and/or CDFW for ITPs. Preconstruction surveys shall be conducted within Project impact areas 14 to 30 days prior to the start of construction for any rare plants that are identified during the focused surveys. Construction activities that may impact rare plants, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Upon the discovery of sensitive plants, the qualified biologist shall have the authority to stop work activities and, following the identification and implementation of steps required to avoid or minimize impacts to sensitive plants, direct construction work to commence once more.
APM BIO-3: Preconstruction Sweeps	Prior to initial vegetation clearance and ground-disturbing activities, a qualified biologist shall conduct preconstruction survey sweeps of the Project work area for special-status wildlife and plants in areas that contain potentially suitable habitats. In the event of the discovery of a special-status plant, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, LSPGC shall seek coverage from the Santa Clara Valley HCP or shall consult with the USFWS and/or CDFW for ITPs. Any other construction activities that may impact sensitive biological resources, including movement of construction equipment and other activities outside of the fenced/paved areas within wildlife habitat, shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of sensitive biological resources and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive resources.
APM BIO-4: Sensitive Area Demarcation	All sensitive biological areas (including creeks, rivers, wetlands, riparian areas, and special-status species habitats) within the Project work area shall be clearly marked prior to construction commencement to restrict construction activities and equipment from entering these areas, except as necessary for construction activities. These markings shall be inspected regularly to ensure that they remain in place.
APM BIO-5: Vehicle Cleaning Prior to Entering Natural Areas	Vehicles and equipment shall be cleaned prior to use in native habitat on the Project areas to avoid the spread of noxious weeds and nonnative invasive plant species.
APM BIO-6: Vehicle Speed Limits	Speed of vehicles driving along proposed access roads and on the Project site during construction and operation shall be limited to 15 mph, except in the case of legal roadgoing vehicles traveling on portions of the Project site that are public roadways which shall be limited to posted speed limits. In addition, construction and maintenance employees shall be required to stay on established and clearly marked and existing roads, except when not feasible due to physical or safety constraints and shall be advised that care should be exercised when commuting to and from the Project area to reduce accidents and animal road mortality.

TABLE 2-13
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM BIO-7: Outdoor Lighting Measures	The use of outdoor lighting during construction and O&M shall be minimized whenever practicable. Photocell and motion detection-controlled lighting shall be provided at a level sufficient to provide safe entry and exit to the Project terminals and control enclosures and for security purposes. All lighting shall be selectively placed, shielded, and directed downward to the extent practicable. Night work shall be avoided as practicable; however, given the large amount of construction proposed within existing roads, local municipalities may dictate that transmission line construction occurs at nighttime within certain areas of the Project. The most likely areas for nighttime construction are within commercial and industrial areas and not residential or potentially sensitive biological areas.
APM BIO-8: Worker Environmental Awareness Program (WEAP) Training	A WEAP shall be developed and implemented to educate all on-site construction workers on site-specific biological and non-biological resources and proper work practices to avoid harming wildlife during construction activities. This WEAP shall include measures to reduce trash buildup during construction.
APM BIO-9: Nesting Bird and Roosting Bats Protection	If feasible, LSPGC shall avoid certain construction activities such as vegetation trimming/removal during the migratory bird nesting and breeding and roosting bat seasons. When it is not feasible to avoid construction during these seasons, LSPGC shall perform a nesting bird and roosting bat survey in the area where the work is to occur. This survey shall be performed to determine the presence or absence of nesting birds and roosting bats. If roosting bats or active nests (i.e., containing eggs or young) are identified, a suitable construction buffer shall be implemented to ensure that the nesting or breeding activities are not substantially adversely affected. If the nesting or breeding activities are being conducted by a Federal or State-listed species, LSPGC shall consult with the USFWS and CDFW as necessary. A qualified biologist shall monitor the nest until the birds have fledged or construction is no longer occurring on the site.
APM BIO-10: San Joaquin Kit Fox Surveys	Protocol surveys and preconstruction survey sweeps shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for San Joaquin kit fox (SJKF). In the event of the discovery of occupied burrows and/or SJKF individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact SJKF, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, would be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of suitable burrows or live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to SJKF.
APM BIO-11: Excavation Wildlife Safety BMPs	Excavated holes/trenches that are not within areas that have wildlife exclusion fencing or that are not filled at the end of the workday shall be covered, or a wildlife escape ramp shall be installed to prevent the inadvertent entrapment of wildlife species.
APM BIO-12: Special-Status Bird Surveys	Protocol surveys shall be conducted for Swainson's hawk and bald eagle; focused surveys shall be conducted for tricolored blackbird and other raptors; and preconstruction survey sweeps shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for Swainson's hawk, tricolored blackbird, bald eagle, burrowing owl, and other raptors. In the event of the discovery of suitable habitats, nests, or live individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW would be consulted. Tricolored blackbird is a covered species under the Santa Clara Valley HCP; if impacts are identified during species-specific surveys, the take for this species shall be covered either under the HCP or covered under a State ITP in consultation with CDFW. If impacts are identified during species-specific surveys for the other State-listed bird species that are not covered under the Santa Clara Valley HCP (Swainson's hawk, bald eagle, and any other bird species that are identified), the take shall be covered under a State ITP in consultation with CDFW. Any other construction activities that may impact special-status birds, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Additionally, qualified biologists shall monitor all active nests to ensure that construction activities are not disturbing the nest. The monitor/inspector shall have the authority to stop work activities upon the discovery of nests or live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive birds.

TABLE 2-13
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM BIO-13: Raptor Surveys	If a raptor nest is observed within 500 feet of the Project during protocol or preconstruction surveys, a qualified biologist shall determine if it is active. If the nest is determined to be active, the qualified biologist shall establish an appropriately sized no construction buffer around the nest and shall monitor the nest to ensure that nesting or breeding activities are not substantially adversely affected. If the biological monitor determines that activities associated with the Project are disturbing or disrupting nesting or breeding activities, the monitor shall make recommendations to reduce noise or disturbance in the vicinity of the nest. If the nest is determined to be inactive, the nest shall be removed under direct supervision of the qualified biologist.
APM BIO-14: Nesting Bird Surveys	Preconstruction nest surveys shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for Migratory Bird Treatment Act (MBTA)-protected birds. In the event of the discovery of an active nest, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact nesting birds, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Additionally, biologists shall monitor all active nests to ensure that construction activities are not disturbing the nest. The monitor/inspector shall have the authority to stop work activities upon the discovery of nests or live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to nesting birds.
APM BIO-15: Special-Status Invertebrate Surveys	Protocol surveys following standard guidelines and during appropriate seasons shall be conducted within all proposed impact areas and suitable buffers within potentially suitable habitat areas for bay checkerspot butterfly, monarch butterfly, and Crotch's bumblebee. In the event of the discovery of suitable habitat, host plants, or individuals of these special-status invertebrates, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. Bay checkerspot butterfly is a covered species under the Santa Clara Valley HCP. If avoidance of the bay checkerspot butterfly is not possible, the take for this species shall be covered under the Santa Clara Valley HCP or under a Federal ITP in consultation with the USFWS. If impacts are identified during species-specific surveys for Monarch butterflies or Crotch's bumblebee which are not covered under the Santa Clara Valley HCP, the take shall be covered under a Federal ITP (monarch butterfly; Federal candidate species) or State ITP (Crotch's bumblebee; State candidate species) in consultation with CDFW or USFWS. Any other construction activities that may impact special-status invertebrates or their habitats, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of individuals or host plants and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive invertebrates.
APM BIO-16: Special-Status Amphibian Surveys	Protocol surveys shall be conducted for California tiger salamander and California red-legged frog; focused surveys shall be conducted for foothill yellow-legged frog; and preconstruction surveys shall be conducted within all proposed impact areas and suitable buffers within potentially suitable habitat areas for California tiger salamander, California red-legged frog, and foothill yellow-legged frog. In the event of the discovery of suitable habitats or live individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact special-status amphibians including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive amphibians.
Cultural Resources	
APM CUL-1: WEAP Training	LSPGC shall obtain a qualified archaeologist to design the cultural resources component of a WEAP that shall be provided to all Project personnel who may encounter and/or alter historical resources or unique archaeological properties, including construction supervisors and field personnel. The WEAP shall be submitted to the CPUC prior to construction. No construction worker shall be involved in ground-disturbing activities without having participated in the WEAP. The WEAP shall include, at a minimum:

TABLE 2-13
APPLICANT-PROPOSED MEASURES

APM Number	Description
	• Training on how to identify potential cultural resources and human remains during the construction process; • A review of applicable local, state, and federal ordinances, laws, and regulations pertaining to historic preservation; • A discussion of procedures to be followed in the event that unanticipated cultural resources are discovered during implementation of the Project; • A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and LSPGC policies; and • A statement by the construction company or applicable employer agreeing to abide by the WEAP, LSPGC policies, and other applicable laws and regulations. The WEAP may be conducted in concert with other environmental or safety awareness and education programs for the Project, provided that the program elements pertaining to cultural resources are designed by a qualified archaeologist, which is defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology (36 CFR Part 61).
APM CUL-2: Archaeological and Native American Monitoring	Archaeological and Native American Monitoring. Archaeological and Native American monitoring shall be conducted during ground disturbance associated with the Project when within 100 feet (30 meters) of previously recorded prehistoric, ethnohistoric resources or after unanticipated discovery of same. Archaeological monitoring shall be conducted during ground disturbance associated with the Project when within 100 feet (30 meters) of previously recorded historic-period resources, or after unanticipated discovery of the same. Prehistoric and/or ethnohistoric archaeological sites have been recorded within the Project area, and the Sacred Lands File (SLF) search and Tribal outreach indicates that lands sacred to the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, the Ohlone Indian Tribe, the Tamien Nation, and the Amah Mutsun Tribal Band are present within the Project search area. In addition, historic era archaeological sites have been recorded within the Project area. A qualified archaeologist shall be retained by LSPGC to monitor excavation in each work area for the Project in accordance with the above monitoring criteria to ensure that there is no impact to any significant unanticipated historical resource. A qualified archaeologist and a Native American monitor determined during Tribal consultation shall be retained by LSPGC to monitor excavation in each work area for the Project in accordance with the above monitoring criteria to ensure that there is no impact to any significant unanticipated cultural resource. Procedures to be followed in the event that a Native American monitor is not available shall be determined during Tribal consultation. Native American monitoring requirements established in this APM may be superseded by government-to-government consultation conducted between the CPUC and Tribal organizations as part of the AB 52 process or otherwise.
APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources	In the event that previously unidentified cultural resources are uncovered during implementation of the Project, all work within 100 feet (30 m) of the discovery shall be halted and redirected to another location. LSPGC's qualified archaeologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts shall occur, the resource shall be documented on State of California Department of Parks and Recreation (DPR) cultural resource records, and no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, LSPGC's qualified archaeologist shall evaluate the significance and California Register of Historic Resources (CRHR) eligibility of the resources and, in consultation with the CPUC, determine appropriate treatment measures. Preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with CEQA Section 15126.4(b)(3), if it is demonstrated that resources cannot feasibly be avoided, LSPGC's qualified archaeologist, in consultation with the CPUC and, if the unearthed resource is prehistoric or Native American in nature, the Native American monitor shall develop additional treatment measures, such as data recovery consistent with CEQA Guidelines 15126.4(b)(3)(C)-(D). Archaeological materials recovered during any investigation shall be curated at an accredited curation facility or transferred to the appropriate Tribal organization.
APM CUL-4: Cultural Resources Inventory	The temporary construction staging areas shall be surveyed prior to construction. If additional proposed facilities and ground-disturbing activities move outside the previously surveyed acreage, the new areas shall be subjected to a cultural resources inventory to ensure that any newly identified cultural resources are either avoided by project redesign or evaluated and treated.

TABLE 2-13
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM CUL-5: Unanticipated Discovery of Human Remains	Avoidance and protection of inadvertent discoveries that contain human remains shall be the preferred protection strategy where feasible and otherwise managed pursuant to the standards of CEQA Guidelines 15064.5(d) and (e). If human remains are discovered during construction or O&M activities, all work shall be diverted from the area of the discovery and the CPUC shall be informed immediately. LSPGC's qualified archaeologist shall contact the appropriate County Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner shall contact the Native American Heritage Commission (NAHC). The NAHC shall then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn shall make recommendations for the appropriate means of treating the human remains and any associated funerary objects. No part of the Project is located on federal land and no federal monies are involved; therefore, the Project is not subject to the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990.
Geology, Soils, and Paleontological Resources	
APM GEO-1: Geotechnical Studies and Geologic Hazard Reduction Measures	The following measures shall be implemented during construction to minimize impacts from geological hazards and disturbance to soils: • Keep vehicle and construction equipment within the limits of the Project and in approved construction work areas to reduce disturbance to topsoil; • Geotechnical studies shall be completed to evaluate the risk of geologic hazards associated with the Project. The geotechnical studies shall provide geotechnical engineering recommendations relative to subsurface soil and rock conditions, groundwater conditions, lateral earth pressures, and seismic classifications of the Project area. Recommendations from the geotechnical studies shall be considered in the final design; • Avoid construction in areas with saturated soils, whenever practical, to reduce impacts to soil structure and allow safe access. Similarly, avoid topsoil salvage in saturated soils to maintain soil structure; • Keep topsoil material on-site in the immediate vicinity of the temporary disturbance or at a nearby approved work area to be used in restoration of temporary disturbed areas. Temporary disturbance areas shall be re-contoured following construction to match pre-construction grades. Areas shall be allowed to re-vegetate naturally or be reseeded with a native seed mix from a local source if necessary. On-site material storage shall be sited and managed in accordance with all required permits and approvals; and • Keep vegetation removal and soil disturbance to a minimum and limited to only the areas needed for construction. Removed vegetation shall be disposed of off-site to an appropriate licensed facility or can be chipped on-site to be used as mulch during restoration.
APM PALEO-1: Paleontological Mitigation Monitoring Plan (PRMMP)	Prior to the issuance of grading permits, a qualified paleontologist shall be retained to prepare and oversee the PRMMP for the Project. The PRMMP shall contain monitoring procedures, define areas and types of earthwork to be monitored, and provide methods for determining the significance of fossil discoveries. The PRMMP shall direct that a qualified paleontological monitor (working under the supervision of the qualified paleontologist) shall monitor all excavations or grading at depths exceeding seven feet below ground surface where potentially fossil-bearing alluvial deposits of Pleistocene age may be present. The duration and timing of paleontological monitoring shall be determined by the qualified paleontologist based on the grading plans and construction schedule and may be modified based on the initial results of monitoring. The PRMMP shall state that any fossils that are collected shall be prepared to the point of curation, identified to the lowest reasonable taxonomic level, and curated into a recognized professional repository (e.g., San Diego Natural History Museum [SDNHM], University of California Museum of Paleontology [UCMP]), along with associated field notes, photographs, and compiled fossil locality data. The repository shall be contracted prior to the start of earthwork to curate and store any discovered and recovered fossils. Such an institution shall be a recognized paleontological specimen repository with a permanent curator, such as a museum or university. Donation of the fossils shall be accompanied by financial support for initial specimen curation and storage. Following the completion of the above tasks, the qualified paleontologist shall prepare a final mitigation report that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils. The report shall be submitted to appropriate agencies, as well as to the designated repository.

TABLE 2-13
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM PALEO-2: Paleontological Resources Findings	If paleontological resources are encountered during ground disturbing activities when the qualified paleontologist or paleontological monitor is not on-site (an inadvertent discovery), earthwork within the vicinity of the discovery shall immediately halt, and the qualified paleontologist shall evaluate the significance of the fossil discovery. If the fossil discovery is deemed significant, the fossil shall be recovered using appropriate recovery techniques based on the type, size, and mode of preservation of the unearthed fossil. Earthwork may resume in the area of the fossil discovery once the fossil has been recovered and the qualified paleontologist deems the discovery site has been mitigated to the extent necessary.
Hazards, Hazardous Materials, and Public Safety	
APM HAZ-1: Site-Specific Spill Prevention, Control, and Countermeasure Plan (SPCCP)	A site-specific SPCCP shall be prepared prior to the initiation of storage of hazardous liquids on the Project site in excess of the appropriate regulatory thresholds. In the event of an accidental spill, the Project shall be equipped with secondary containment that meets SPCCP guidelines. The secondary containment shall be sufficiently sized to accommodate accidental spills. The plan shall be provided to the CPUC prior to construction for recordkeeping.
APM HAZ-2: Hazardous Materials Management Plan (HMMP)	A HMMP shall be prepared and implemented for the Project. The plan shall be prepared in accordance with relevant state and federal guidelines and regulations (e.g., Cal/OSHA). The plan shall include the following information related to hazardous materials and waste, as applicable: • A list of hazardous materials present on-site during construction and O&M to be updated as needed, along with product Safety Data Sheets and other information regarding storage, application, transportation, and disposal requirements; • A Hazardous Materials Communication (i.e., "HAZCOM") Plan; • Assignments and responsibilities of Project health and safety roles; • Standards for any secondary containment and countermeasures required for hazardous materials; • Spill response procedures based on product and quantity. The procedures shall include materials to be used, location of such materials within the Project area, and disposal protocols; and • Protocols for the management, testing, reporting, and disposal of potentially contaminated soils or groundwater observed or discovered during construction. This would include termination of work within the area of suspected contamination sampling by an OSHA-trained individual and testing at a certified laboratory. The Project would also have lead-acid batteries to provide backup power for monitoring, alarm, protective relaying, instrumentation and control, and emergency lighting during power outages. Secondary containment shall be constructed around and under the battery racks, and the HMMP shall address containment from a battery leak. The plan shall be provided to the CPUC prior to construction for recordkeeping. Plan updates shall be made and submitted as needed if construction activities change such that the existing plan does not adequately address the Project.
APM HAZ-3: Skyline Terminal Soil and Groundwater Contamination Management	Construction activities at the Skyline terminal (within the College Park Parcel 2 site) shall comply with the SMP that was prepared as part of the Covenant for the Skyline terminal property. This includes, but is not necessarily limited to: • Soil sampling before construction begins shall be conducted to identify the presence of contamination and specific contaminants. • Impacted soils, if encountered, shall be stockpiled on-site in approximate 100 to 250 CY volumes. The soil stockpiles shall be covered with 10-mil plastic sheeting and secured to prevent dust or runoff during storm events. All appropriate dust control and stormwater BMPs shall be implemented during the soil mitigation activities. • Upon completion of excavation work and confirmation sampling, the excavation shall be backfilled with the excavated soil or clean import fill. Import fill shall be tested in general accordance with DTSC requirements, prior to acceptance. Imported soil shall be placed in accordance with the Project's geotechnical engineer's recommendations. In addition to adherence to the SMP, LSPGC shall implement measures to address potentially contaminated groundwater, if encountered. If groundwater is encountered during construction at the proposed Skyline terminal site, it shall be sampled prior to disposal. If dewatering must occur, groundwater shall be pumped directly to baker tanks (or similar) portable storage tanks. The groundwater shall not be transported or disposed of until it has been tested for possible

TABLE 2-13
APPLICANT-PROPOSED MEASURES

APM Number	Description
	contamination. All groundwater extracted from the Skyline terminal site shall be handled, transported, and disposed according to applicable laws and regulations.
APM HAZ-4: Soil Management Plan	A Soil Management Plan shall be prepared prior to construction that identifies specific steps necessary to properly identify, handle, treat, and dispose of potentially contaminated soils throughout the Project area where known contamination occurs in close proximity to project-related ground disturbance. The Soil Management Plan shall include, but not be limited to, the following requirements: • Prior to commencement of construction activities within the 12 contaminated sites discussed above, the soil along the path of the underground alignment shall be sampled to identify any potential contaminants. The soil sampling shall include testing for specific contaminants identified in agency records. • If sampling identifies soil contaminated above hazardous waste levels, the soil shall be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil shall require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations. • In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil shall be tested, and if contaminated above hazardous waste levels, shall be contained and disposed of at a licensed waste facility.
APM HAZ-5: Final Induction Study and Utility Coordination	Design and construction of the proposed transmission lines shall be coordinated with existing utility owners (as applicable) to ensure that operation of the new transmission lines shall not cause unsafe electromagnetic induction effects on any existing metallic utilities located in close proximity to the proposed transmission lines. LSPGC shall conduct a detailed induction study for all existing metallic utilities in close proximity to proposed transmission line alignments. Where potential adverse effects are identified by the Final Induction Study, LSPGC shall coordinate with the applicable utility owner to develop appropriate mitigation measures. Final designs and mitigation strategies, if required, shall be submitted to the CPUC prior to commencement of construction of the transmission lines.
Hydrology and Water Quality	
APM WQ-1: Groundwater Dewatering and Discharge Measures	Groundwater, if encountered during construction, shall be handled and discharged in accordance with all state and federal regulations including the following: • Recovered groundwater shall be contained on-site and tested prior to discharge; • When testing determines water is suitable for land application, discharge may be applied to flat, vegetated, upland areas, used for dust control, or used in other suitable construction operations; • Land application shall be made in a manner that discharge does not result in substantial erosion; • Water unsuitable for land application shall be disposed of at an appropriately permitted facility; and • Discharge to surface waters or storm drains may occur only if permitted by the agency(ies) with jurisdiction over the resource (e.g., USACE, RWQCB, and/or CDFW, as applicable).
Noise	
APM NOI-1: Vibration Monitoring for High Vibratory Equipment Contingency Plan	Once the final design and alignment are determined for the proposed Grove to Skyline 320 kV DC transmission line, a site survey would be conducted along segments of the proposed transmission line alignment where construction may occur within 25 feet of existing structures to determine if any vibration sensitive structures are located within 25 feet of vibration-inducing construction activities. Vibration sensitive structures are those structures at least 50 years old, or generally constructed before approximately 1974. If construction with high vibratory equipment occurs within 25 feet of such structures, a Vibration Monitoring for High-vibratory Equipment Contingency Plan would be implemented. The Vibration Monitoring for High-vibratory Equipment Contingency Plan would be implemented to include the following, as necessary, to prevent vibration damage to vibration sensitive structures: • Identification of vibration-sensitive structures within 25 feet of the final transmission line alignment where high vibratory equipment is planned to be used. • Where such structures are identified, LSPGC would attempt to use the following measures as necessary to avoid construction vibration impacts:

TABLE 2-13
APPLICANT-PROPOSED MEASURES

APM Number	Description
	– Place operating equipment on the construction site as far as feasible from vibration-sensitive receptors. – Use smaller equipment to minimize vibration levels below the limits. – Avoid using vibratory rollers and tampers near sensitive areas. – Select demolition methods not involving impact tools. • If the above reduction measures do not lower anticipated vibration levels below loaded truck levels or are not feasible, a technical vibration study would be prepared by a qualified professional who verifies that there would be virtually no risk of cosmetic or structural damage. • Based on the results of vibration study, identify where vibration monitoring would be conducted, establish a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions. • Construction contingencies would be identified for when vibration levels approach the limits identified by vibration study. Construction contingencies may include procedures such as use of alternative construction equipment or construction phasing that would reduce potential damage to affected structures. • Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person would be clearly posted at the construction site. • The results of all vibration monitoring would be summarized and submitted in a report shortly after substantial completion of construction that occurs within 25 feet of vibration-sensitive structures. The report would include a description of measurement methods, equipment used, calibration certificates, and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits would be included together with documentation supporting any such claims.
Recreation	
APM REC-1: Trail Management Plan	LSPGC shall coordinate with the City of San José, Santa Clara County, and the National Park Service for the preparation of the Project's TMP. The TMP shall identify if a detour route(s) is required, as well as provide trail-specific traffic control and safety measures for pedestrians, trail users, and motorists.
APM REC-2: Trail Safety Crossing Measures	If Coyote Creek Trail from Metcalf Road to Bailey Avenue is not already closed by Santa Clara County Parks due to flooding of low water trail crossings of Coyote Creek, LSPGC's construction contractor shall provide a crossing guard, as needed during periods of active construction along the approximately 0.8-mile portion of Coyote Creek Trail that would be directly impacted by construction of the Project. Alternatively, if use of a crossing guard is not practical during certain construction activities (i.e., a trail closure is required), the Coyote Creek Trail detour route identified in the TMP shall be implemented. Signage and flagging may be used to help direct trail users and provide safety for both trail users and construction crews.
APM REC-3: Trail Restoration	Areas of Coyote Creek Trail that are temporarily disturbed by the Project activities shall be restored to approximate preconstruction conditions.
Traffic and Transportation	
APM TRA-1: Traffic Control Plan	LSPGC shall prepare a TCP to describe measures to guide traffic (such as signs and workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts. LSPGC shall follow its standard safety practices, including installing appropriate barriers between work zones and transportation facilities, posting adequate signs, and using proper construction techniques. LSPGC shall follow the recommendations regarding basic standards for the safe movement of traffic on highways and streets in accordance with Section 21400 of the California Vehicle Code. As required for obtaining a local encroachment permit, LSPGC shall provide a TCP to the applicable local jurisdictions which shall comply with the U.S. Department of Transportation's (DOT) Manual on Uniform Traffic Control Devices (MUTCD). Construction activities shall be coordinated with local law enforcement and fire protection agencies, as required. Emergency service providers shall be notified, as required by the local permit, of the timing, location, and duration of construction activities.

TABLE 2-13
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM TRA-2: Coordinate Bus Stop Closures with Santa Clara VTA	If required during construction, LSPGC shall coordinate any bus stop closures with the Santa Clara VTA in advance to minimize disruptions to service. Where disruptions to service are anticipated, advanced notice shall be given to allow transit users on affected routes to identify and locate a temporary interim bus stop(s). Measures that may be implemented to give advanced notice of disruptions to service may include, but not necessarily be limited to, posting signage at bus stops with planned closures and posting notices for anticipated route detours and bus stop closures on the Santa Clara VTA website. Identification and implementation of specific measures shall be implemented in coordination with Santa Clara VTA.
APM TRA-3: Repair Infrastructure	LSPGC shall oversee all aspects of construction and shall ensure that contractors repair any damage caused by construction activities. LSPGC shall confer with local agencies as needed to ensure repairs are sufficient and consistent with preconstruction conditions.
Tribal Cultural Resources	
APM TCR-1: WEAP Training	LSPGC shall work with interested Tribes to design the TCRs component of a WEAP that shall be provided to all Project personnel who may encounter and/or alter TCRs or prehistoric/ethnohistoric archaeological properties, including construction supervisors and field personnel. The WEAP shall be submitted to the CPUC prior to construction. No construction worker shall be involved in ground-disturbing activities without having participated in the WEAP. The WEAP shall include, at a minimum: • Training on how to identify potential TCRs and human remains during the construction process; • A review of applicable regulations pertaining to TCRs; • A discussion of procedures to be followed in the event that unanticipated TCRs are discovered during implementation of the Project; • A discussion of culturally appropriate dignity, taking into account the Tribal cultural values and meaning of the resource, including the cultural character and integrity, traditional uses, and confidentiality of resources. • A statement by the construction company or applicable employer agreeing to abide by the WEAP, LSPGC policies, and other applicable laws and regulations. The WEAP may be conducted in concert with other environmental or safety awareness and education programs for the Project, provided that the program elements pertaining to cultural resources are designed with the input of interested Tribes.
APM TCR-2: Native American Monitoring	Native American monitoring shall be conducted during ground disturbance associated with the Project when within 100 feet (30 meters) of previously recorded prehistoric, ethnohistoric, or TCRs. Prehistoric and/or ethnohistoric archaeological sites have been recorded within the Project area, and the SLF search and Tribal outreach indicates that lands sacred to sacred to the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, the Ohlone Indian Tribe, the Tamien Nation, and the Amah Mutsun Tribal Band are present within the Project search area. A Native American monitor determined during Tribal consultation shall be retained by LSPGC to monitor excavation associated with the Project to ensure that there is no impact to any significant unanticipated prehistoric, ethnohistoric, or TCR. Prior to construction, LSPGC shall confer with a designated Tribal representative on the appropriate course of action to be taken should unanticipated cultural materials, and specifically human remains, be discovered during construction. Native American monitoring requirements established in this APM may be superseded by government-to-government consultation conducted between the CPUC and Tribal organizations as part of the AB 52 process or otherwise.
Utilities	
APM UTIL-1: Coordination with Utilities	LSPGC shall notify all utility companies with utilities located within or crossing the Project ROW to locate and mark existing underground utilities along the entire length of the Project. Due to the linear nature of transmission line construction, utilities shall be marked in short segments at least 14 days prior to construction within said segments. No subsurface work shall be conducted that would conflict with (i.e., directly impact or compromise the integrity of) a buried utility. In the event of a conflict, areas of subsurface excavation shall be realigned vertically and/or horizontally, as appropriate, to avoid other utilities and provide

TABLE 2-13
APPLICANT-PROPOSED MEASURES

APM Number	Description
	adequate operational and safety buffering, or relocation of the existing utility shall be coordinated with each utility owner/operator. LSPGC shall coordinate with third-party utilities and shall submit the intended construction methodology to the owner of the third-party utility for review and coordination. Construction methods shall be adjusted as necessary to ensure that the integrity of existing utility lines is not compromised.

NOTES:
AB = Assembly Bill; ACTM = Airborne Toxic Control Measures; APM = Applicant-proposed measure; BMP = best management practice; Cal/OSHA = California Occupational Safety and Health Administration; CARB = California Air Resources Board; CDFW = California Department of Fish and Wildlife; CEQA = California Environmental Quality Act; CFR = Code of Federal Regulations; CPUC = California Public Utilities Commission; CRHR = California Register of Historical Resources; CY = cubic yards; DC = direct current; DOT = U.S. Department of Transportation; DPR = California Department of Parks and Recreation; DTSC = California Department of Toxic Substances Control; HMMP = hazardous materials management plan; HVDC = high-voltage direct current; ITP = incidental take permit; kV = kilovolt; LSPGC = LS Power Grid California; m = meters; MBTA = Migratory Bird Treaty Act; mph = miles per hour; MUTCD = Manual on Uniform Traffic Control Devices; NAGPRA = Native American Graves Protection and Repatriation Act; NAHC = Native American Heritage Commission; NOA = naturally occurring asbestos; O&M = operation and maintenance; OSHA = Occupational Safety and Health Administration; PRMMP = paleontological mitigation monitoring plan; Project = Power Santa Clara Valley Project; RWQCB = regional water quality control board; SDNHM = San Diego Natural History Museum; SJKF = San Joaquin kit fox; SLF = Sacred Lands File; SMP = Site Management Plan; SPCCP = spill prevention, control, and countermeasure plan; SWPPP = stormwater pollution prevention plan; TCP = traffic control plan; TCR = tribal cultural resource; TMP = trail management plan; UCMP = University of California Museum of Paleontology; USACE = U.S. Army Corps of Engineers; USFWS = U.S. Fish and Wildlife Service; VTA = Santa Clara Valley Transportation Authority; WEAP = worker environmental awareness program

SOURCE: LSPGC 2025

2.15.2 PG&E Best Management Practices

PG&E would be responsible for overseeing the construction and environmental teams that would implement its construction BMPs and field protocols. PG&E would manage construction to allow for implementation of the BMPs to be monitored, documented, and enforced, as appropriate. All those contracted by PG&E to perform this work would be provided with all relevant permits, conditions, and BMPs, as well as instructions on how to properly implement the BMPs to ensure their effectiveness.

If conditions occur where construction would have the potential to adversely affect a known or previously unknown environmentally sensitive resource, or if construction activities substantially deviate from Project requirements, PG&E monitors and/or contract administrators would have the authority to halt construction activities, if needed, until an alternative method or approach can be identified. Any concerns that arise during implementation of the BMPs would be communicated to the appropriate authority to determine whether corrective action is required, or the concerns would be addressed on-site, as applicable. As the proposed BMPs are implemented, environmental monitors from PG&E would review and document such activities. Field notes and digital photographs would be used to document and describe the status of BMPs, as necessary.

TABLE 2-14
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

PG&E BMP or FP Number	Description
Air Quality	
PG&E BMP AQ-1: Vehicle Idling	A vehicle operator is prohibited from idling an on-road diesel-fueled vehicle with a Gross Vehicle Weight of ≥10,001 pounds (lbs), or an off-road diesel-fueled vehicle with a primary engine ≥25 horsepower (hp), in excess of five minutes unless conducting one or more of the following activities: • Doing work for which the vehicle was intended; • Powering equipment necessary to perform a job function; • Operating lights or signals to direct traffic at a PG&E job site; • Service, testing or maintenance on the vehicle; • Regenerating an exhaust filter; • Idling for safety reasons, including providing light when working after dark, defrosting windows, keeping the cabin warm to avoid a health hazard, and providing air conditioning to avoid heat illness; • Idling due to traffic conditions beyond the vehicle operator's control; • Warming an engine up to operating temperatures, as specified by the equipment manufacturer; • Queuing, such as when a line of off-road trucks forms to receive materials from an excavator. Queuing does not include a vehicle waiting for another vehicle to perform a task. Idling while queuing is not allowed within 100 feet of a residential home.
PG&E BMP AQ-2: Asbestos	Because Metcalf substation is located in an area with known encounters of Naturally Occurring Asbestos (NOA), PG&E shall follow PG&E's Utility Procedure: ENV-1002P-02 for construction and grading activities at Metcalf substation to ensure compliance with applicable State of California regulations including the Asbestos Airborne Toxic Control Measure (AATCM). PG&E is responsible for obtaining permits from the air district prior to start of work.
PG&E BMP AQ-3: Fugitive Dust – General	Field crews must limit fugitive dust from PG&E project work at all times. Types of work activities where water trucks or other dust abatement methods are typically required include: • Construction; • Demolition; • Excavation; • Trenching; • Grading; • Sand blasting; • and other earthmoving activities Visible emissions of fugitive dust from PG&E project activities must be maintained within the project boundary. The crew shall abate dust by: • Applying water to disturbed areas and to storage stockpiles; • Covering and securing stockpiled soil at the end of each workday; • Applying water in sufficient quantities to prevent dust plumes during activities such as clearing & grubbing, backfilling, trenching and other earth moving activities; • Limit vehicle speed to 15 miles per hour within approved unpaved work areas and along unpaved roads; • Vehicles and equipment used to transport bulk materials must be wetted, covered, and provide at least 6 inches of free board (space between top of truck and load) during transport; • Clean-up track-out at least daily; • Escalate preventative measures as needed to match conditions • Consider postponing construction activities during high wind events; and • The crew shall not generate dust in amounts that create a nuisance to wildlife or people, particularly where sensitive receptors such as neighborhoods, schools, and hospitals are located nearby or down-wind. During inactive periods (e.g. after normal working hours, weekends, and holidays), the crew shall apply water or other approved material to form a visible crust on the soil and restrict vehicle access.

TABLE 2-14
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

PG&E BMP or FP Number	Description
PG&E BMP AQ-4: Portable Equipment Registration Program	PG&E requires that portable engines be registered into the Statewide Portable Equipment Registration Program (PERP) administered by the California Air Resources Board (CARB), if: • the engine is portable (mounted on a truck, trailer, skids, or wheels); • the engine is 50 brake horsepower or greater, and; • the engine does not provide motive force for a vehicle. Auxiliary engines mounted on vehicles need to be registered if they are 50 brake horsepower or greater. For PG&E-owned units, PG&E Environmental Management Air Program is responsible for maintaining valid PERP registration with support from Transportation Services. For rental units, the rental vendor is responsible for the PERP registration and to provide PG&E with a copy of the current registration, permit, and placard before use. *Standard Requirements:* • If a current placard, registration sticker, and registration paperwork is not on the unit, the crew shall NOT use the piece of equipment and have it replaced with a unit that is compliant. • For Rental Units: residence time onsite must be logged upon arrival onsite and upon removal. This record shall be retained and made available for review by the project Environmental Field Specialist (EFS). *Additional Requirements:* • If a current placard, registration sticker, and registration paperwork is not on the unit, the crew shall NOT use the piece of equipment and have it replaced with a unit that is compliant. • If the PERP unit is being used to provide primary or supplemental power to a building during an electrical upgrade there is a 90-day limit on the use of PERP. • If the PERP unit is being used to provide primary or supplemental power to a building for greater than 12 months and an electrical upgrade is not happening a local air district permit is required. • If the PERP generator is being used for PSPS support in the following air districts a local air district permit will be required: - Bay Area Air Quality Management District (AQMD) - Placer County AQMD - Yolo-Solano AQMD - Northern Sonoma AQMD - San Joaquin Valley APCD - Feather River AQMD • If the PERP generator is being used for EPSS support in the following air districts a local air district permit may be required: - Monterey Bay ARD - Feather River AQMD • If the PERP Unit is being used to replace a failed stationary source generator: - a local district notification is required within 72 hours; - a Tier 4 Final Engine should be used; - and a local district permit may be required in 180 days. - If the PERP unit is being used for Capacity Shortfall in Feather River AQMD or Yolo-Solano AQMD, a local air district permit is required. *Greenhouse Gas (GHG) Facility Requirements*: If diesel portable engines greater than 50 brake horsepower (bhp) are operated onsite at a GHG facility subject to the Mandatory Reporting Rule for GHGs (MRR) at any time, the AB617 PERP Log must be completed.
PG&E BMP AQ-5: Tier 4 Construction Equipment	At least 75 percent of construction equipment with a rating between 100 and 750 hp shall be required to use engines compliant with Environmental Protection Agency (EPA) Tier 4 non-road engine standards. In the event enough Tier 4 equipment are not available to meet the 75-percent threshold, documentation of the unavailability shall be provided and engines utilizing a lower standard shall be used.

TABLE 2-14
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

PG&E BMP or FP Number	Description
Biological Resources	
FP-1	Hold annual training on HCP requirements for employees and contractors performing covered activities in the Plan Area that are applicable to their job duties and work.
FP-2	Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, compacted dirt).
FP-3	Use existing access and ROW roads. Minimize the development of new access and ROW roads, including clearing and blading for temporary vehicle access in areas of natural vegetation.
FP-4	Locate off-road access routes and work sites to minimize impacts on plants, shrubs, trees, small mammal burrows, and unique natural features (e.g., rock outcrops).
FP-5	Notify conservation landowner at least two business days prior to conducting covered activities on protected lands (state and federally owned wildlife areas, ecological reserves, or conservation areas); more notice shall be provided if possible or if required by other permits. If the work is an emergency, as defined in PG&E's Utility Procedure ENV-8003P-01, PG&E shall notify the conservation landowner within 48 hours after initiating emergency work. While this notification is intended only to inform conservation landowner, PG&E shall attempt to work with the conservation landowner to address landowner concerns.
FP-6	Minimize potential for covered species to seek refuge or shelter in pipes and culverts. Inspect pipes and culverts, with a diameter wide enough to be entered by a covered species that could inhabit the area where pipes are stored, for wildlife species prior to moving pipes and culverts. Immediately contact a biologist if a covered species is suspected or discovered.
FP-7	Vehicle speeds on unpaved roads shall not exceed 15 mph.
FP-8	Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites.
FP-9	During fire season in designated State Responsibility Areas, equip all motorized equipment with federally approved or state-approved spark arrestors. Use a backpack pump filled with water and a shovel and fire-resistant mats and/or windscreens when welding. During fire "red flag" conditions as determined by Cal Fire, curtail welding. Each fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C. Clear parking and storage areas of all flammable materials.
FP-10	Minimize the activity footprint and minimize the amount of time spent at a work location to reduce the potential for take of species.
FP-11	Utilize standard erosion and sediment control BMPs (pursuant to the most current version of PG&E's *Stormwater Field Manual for Construction Best Management Practices*) to prevent construction site runoff into waterways.
FP-12	Stockpile soil within established work area boundaries and locate stockpiles so as not to enter water bodies, stormwater inlets, or other standing bodies of water. Cover stockpiled soil prior to precipitation events.
FP-13	Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews shall search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife are not trapped. If any wildlife is found, a biologist shall be notified and shall relocate the species to adjacent habitat or the species shall be allowed to naturally disperse, as determined by a biologist.
FP-14	If the covered activity disturbs 0.1 acre or more of habitat for a covered species in grasslands, the field crew shall revegetate the area with a commercial "weed free" seed mix.
FP-15	Prohibit vehicular and equipment refueling 250 feet from the edge of vernal pools, and 100 feet from the edge of other wetlands, streams, or waterways. If refueling must be conducted closer to wetlands, construct a secondary containment area subject to review by an environmental field specialist (EFS) and/or biologist. Maintain spill prevention and cleanup equipment in refueling areas.

TABLE 2-14
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

PG&E BMP or FP Number	Description
FP-16	Maintain a buffer of 250 feet from the edge of vernal pools and 50 feet from the edge of wetlands, ponds, or riparian areas. If maintaining the buffer is not possible because the areas are either in or adjacent to facilities, the field crew shall implement other measures as prescribed by the land planner, biologist, or HCP administrator to minimize impacts by flagging access, requiring foot access, restricting work until dry season, or requiring a biological monitor during the activity.
FP-17	Directionally fell trees away from an exclusion zone, if an exclusion zone has been defined. If this is not possible, remove the tree in sections. Avoid damage to adjacent trees to the extent possible. Avoid removal of snags and conifers with basal hollows, crown deformities, and/or limbs over 6 inches in diameter.
FP-18	Nests with eggs and/or chicks shall be avoided; contact a biologist, land planner, or the Avian Protection Program manager for further guidance.
PG&E BMP BIO-1: Worker Environmental Awareness Training	A qualified biologist will develop an environmental awareness training program that is specific to the project. All on-site construction personnel will attend the training before they begin work on the project. Training will include a discussion of the construction management practices that are being implemented to protect biological resources as well as the terms and conditions of any project permits.
PG&E BMP BIO-2: Burrowing Owl	A survey for evidence of burrowing owl (sign or presence) shall be conducted prior to initial ground disturbance. The survey shall occur within the best detection timeframe and within two weeks of construction. If burrowing owl are detected, consult with the CDFW.
PG&E BMP BIO-3: Nesting Birds	If work is anticipated to occur within the nesting bird season (February through August), nesting birds, including raptors and other species protected under the MBTA, may be impacted. If active nests are discovered, exclusionary measures and/or designated avoidance buffers may be required and implemented according to the guidance in the PG&E Nesting Bird Management Plan. The Project biologist determines if the construction action will impact the nest, and if so, identifies whether alternative actions or monitoring can be implemented to avoid impacts. If active nests are observed during construction, crews must immediately alert the PG&E Project biologist.
Cultural Resources	
PG&E BMP CULT-1: Worker Awareness Training	PG&E will provide environmental awareness training on archeological cultural and paleontological resources protection. This training may be administered by the PG&E cultural resources specialist (CRS) or a designee as a stand-alone training or included as part of the overall environmental awareness training as required by the project and will at minimum include: types of cultural resources or fossils that could occur at the project site; types of soils or lithologies in which the cultural resources or fossils could be preserved; procedures that should be followed in the event of a cultural resource, human remain, or fossil discovery; and penalties for disturbing cultural or paleontological resources.
PG&E BMP CULT-2: Archaeological and Native American Monitoring	Archaeological and Native American monitoring shall occur for all project-related ground disturbance affiliated with work at or adjacent to San Jose B Substation and Metcalf Substation. PG&E will retain a qualified archaeologist and Native American monitor for all ground disturbing activities completed by PG&E. The archaeological and Native American monitor will closely inspect all exposed surfaces and sediments for cultural resources in result of construction activities and have stop work authority if a cultural resource is identified. Furthermore, the CRM and Native American monitor/representative will work with construction crews in systematically redirecting ground disturbing activities until the CRS and Native American monitor/representative can investigate the cultural resource discovery.
PG&E BMP CULT-3: Inadvertent Discovery	If any new cultural resources are encountered during Project activities, all work must be suspended in the vicinity (approximately 100 feet) of the resource, and the cultural resource specialist (CRS) shall be immediately notified. At that time, the CRS shall coordinate any necessary investigations of the site with appropriate specialists, as needed. PG&E may be required to implement protective measures deemed necessary for the protection of the cultural resources. Prehistoric resources that may be identified during Project implementation may include, but are not limited to, stone tools and manufacturing debris made of obsidian, basalt, and other lithic materials; milling equipment such as bedrock mortars, portable mortars, and pestles; and locally darkened soils (midden) that may contain dietary remains such as shell and bone, as well as human remains. Historic resources that may be identified include, but are not limited to, small cemeteries or burial plots, structural foundations, cabin pads, cans with soldered seams or tops, bottles or fragments of clear and colored glass, cut (square) nails, and ceramics.

TABLE 2-14
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

PG&E BMP or FP Number	Description
PG&E BMP CULT-4: Flag and Avoid Known Resources	Sites will be marked with flagging tape, safety fencing, and/or sign designating it as an "environmentally sensitive area" to ensure that PG&E construction crews and heavy equipment will not intrude on these sites during construction. At the discretion of the PG&E CRS, monitoring may be done in lieu of or in addition to flagging. If it is determined that the project cannot avoid impacts on one or more of the sites, then, for those sites that have not been previously evaluated, evaluation for inclusion in the National Register of Historic Places (NRHP)/California Register of Historic Resources (CRHR) will be conducted. Should the site be found eligible, appropriate measures to reduce the impact to a less-than-significant level will be implemented, including, but not limited to, data recovery, photographic and archival documentation, or other measures as deemed appropriate. If it is determined that sites that have been previously determined to be eligible for inclusion in either the NRHP or CRHR cannot be avoided, measures will be implemented to reduce the impact to a less-than-significant level, including, but not limited to, data recovery, photographic and archival documentation, or other measures as deemed appropriate.
PG&E BMP CULT-5: Human Remains	In keeping with the provisions provided in 7050.5 of the CHSC and Public Resource Code 5097.98, if human remains are encountered (or are suspected) during any project-related activity, PG&E shall: • Stop all work within 100 ft.; • Immediately contact: CRS, who will then notify the county coroner; • Secure location, but do not touch or remove remains and associated artifacts; • Do not remove associated spoils or pick through them; • Record the location and keep notes of all calls and events; and • Treat the find as confidential and do not publicly disclose the location. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of such identification. The most likely descendant shall work with the CRS to develop a program for re-interment or other disposition of the human remains and any associated artifacts. No additional work shall take place within the immediate vicinity of the find until the appropriate actions have been implemented.
Geology, Soils, and Paleontological Resources	
PG&E BMP PALEO-1: Unanticipated Paleontological Discoveries	If significant paleontological resources are discovered during construction activities, work will stop within 50 feet and the PG&E CRS will be contacted immediately. The CRS will work with the qualified paleontologist to evaluate the discovery. If the discovery is determined to be significant, PG&E will implement measures to protect and document the paleontological resource. Work may not resume within 50 feet of the find until approval by the CRS in coordination with the paleontologist. In the event that significant paleontological resources are encountered during the project, protection and recovery (if feasible and safe) of those resources may be required. Treatment and curation of fossils will be conducted in consultation with the landowner, PG&E, and CPUC. The paleontologist will be responsible for developing the recovery strategy and will lead the recovery effort, which will include establishing recovery standards, preparing specimens for identification and preservation, documentation and reporting, and securing a curation agreement from the approved facility.
Hazards, Hazardous Materials, and Public Safety	
PG&E BMP HAZ-1: Oil-Filled Electrical Equipment (OFEE)	The following measures shall be followed: • OFEE shall be managed in accordance with ENV-3000P-02-JA01 Job Aid: Handling In-Service Electrical Equipment from the Field. • If during the removal/replacement of OFEE, visible evidence of an oil leak is identified (e.g., seeping, weeping, staining, sheen), contact your local EFS immediately to determine cleanup actions and regulatory reporting requirements. • Work must cease on all leaking pre-July 1, 1979 equipment or equipment without a non-poly-chlorinated biphenyls (PCB) blue sticker or other non-PCB indicator on its nameplate until you've made contact with your local EFS. • All leaking equipment must be patched, pumped, or containerized in the field so that it shall not leak during transport; taken straight back to the Service Center (i.e., stops at staging areas are prohibited); and placed in the designated returned equipment area with a completed yellow condition tag.

TABLE 2-14
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

PG&E BMP or FP Number	Description
	• Other equipment and bushings that cannot be tested and shall be assumed > 500 ppm PCB. Contact the EFS to coordinate generation of a purchase order and contract for disposal. This equipment shall be transported by a PG&E-approved hazardous waste contractor and taken to a disposal facility. • **Note**: Do NOT transport to a PG&E waste consolidation site.
PG&E BMP HAZ-2: Hazardous Materials Business Plan (HMBP)	The EFS shall be notified 30 days prior to a threshold exceeding hazardous material/waste being placed on-site. Threshold limits are 200 cubic feet of compressed gases (1,000 cubic feet for simple asphyxiation or the release of pressure only; carbon dioxide), 500 lbs of solids, or 55 gallons of liquids for more than 30 non-consecutive days. If required, the local county or city shall be notified of any amount of hazardous material/waste: • Counties: Nevada, San Bernardino (waste only), San Francisco, Santa Clara (call for city specific details), Santa Cruz, Yuba (waste only) • Cities: Bakersfield (waste only), Berkeley, Healdsburg, Sebastopol, Petaluma, Santa Clara (call for city specific details) • PG&E shall develop an HMBP as necessary.
PG&E BMP HAZ-3: Hazardous Waste Management	This Project may involve the storage of hazardous materials, and they must be managed according to regulations and the following BMPs. • All releases of hazardous materials must be immediately addressed. Maintain a spill kit on-site during the length of the Project. Contact the Project EFS for spills of hazardous materials/wastes to determine if agency notifications shall be required and/or if additional resources are needed. • Hazardous materials, greater than 440 lbs and less than 1,001 lbs can be transported on PG&E vehicles if the proper materials of trade (MOT) shipping paper/Material Safety Data Sheet (MSDS) accompanies the load. Contact the Project EFS for additional guidance in these areas. • All hazardous materials containers must be marked correctly. • All hazardous materials signs must be displayed as required. • Non-saturated oily rags (to be laundered) stored in non-combustible containers. • Emergency equipment such as fire extinguisher, eye wash, MSDS, etc. must be available on-site. • Hazardous material containers must be in good condition. • All hazardous materials must be compatible with containers. • Hazardous materials containers are kept closed. • If there is an unauthorized release of hazardous material, contact your EFS immediately. For after-hours releases contact the Environmental Emergency Hotline at 1-800-874-4043. Immediately contact the local PG&E EFS and stop work if any of the following conditions occur. After hours or if the local EFS is unavailable, please call the Environmental Hotline at 800-874-4043. • Discharge or spill of hazardous substance. • If an Environmental Regulator visits the site. • Visually cloudy/muddy water is observed leaving the work area; • An underground storage tank is discovered. • A subsurface component related to site remediation activities (e.g., monitoring well, recovery well, injection well) is discovered. No subsurface components may be impacted. • If during excavation unanticipated evidence of contamination is identified (e.g., staining, odors), work must cease and when safe to do so, cover the trench with steel plates. In order to minimize impacts to public safety and the environment, place contaminated soil on a polyethylene sheet (four milliliters) and cover or place the contaminated soil in lined covered containers. Then contact your local/support EFS to determine the next steps. • If any subsurface components related to site remediation activities (e.g., monitoring well, recovery well, injection well) are discovered in the path of excavation, work must cease in that location and your EFS must be notified to determine the next steps. No subsurface components may be impacted.

TABLE 2-14
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

PG&E BMP or FP Number	Description
PG&E BMP HAZ-4: Lead Acid Batteries	This Project shall be generating lead-acid battery universal waste. The construction contractor or PG&E technicians shall properly manage and dispose of universal waste and follow Lead Acid Battery Procedure ENV 4000P-05-JA05 and/or ENV 4000P-05-JA06. Contact the Project EFS for additional guidance in these areas. *Management of Undamaged (Intact) Batteries – Universal Waste*: • If batteries are undamaged (i.e., intact and not leaking), they can be managed as universal waste at the nearest PG&E waste consolidation site. Remote sites shall have batteries transported and disposed of from site if quantities warrant. A PG&E-approved hazardous waste contractor transports intact batteries from a waste consolidation site to an approved universal waste handler using a non-hazardous waste manifest. • Note: It is recommended that large station backup batteries are better shipped directly from the substation to a disposal facility rather than taken to a PG&E waste consolidation site. Coordinate with the local EFS for disposal. • Reference ENV 4000P-05-JA05 for general information, proper labeling, transportation, storage, and accumulation time limit. *Management of Damaged or Leaking Batteries – Hazardous Waste*: • Ship damaged or leaking batteries from a waste consolidation site to an approved treatment, storage, and disposal facility (TSDF) for disposal using a PG&E-approved hazardous waste contractor and a uniform hazardous waste manifest (see ENV-4000P-02-JA01 Uniform Hazardous Waste Manifest). • Batteries must be placed in non-reactive, structurally sound, closed containers (such as plastic drum) that are adequate to prevent breakage or further damage and contain vermiculite, which can be attained at a PG&E waste consolidation site. • Reference ENV 4000P-05-JA05 for general information, proper labeling, transportation, storage, and accumulation time limit. Transportation – Reference ENV 4000P-05-JA05. • Transporting > 10 lbs of non-spillable batteries per vehicle from a field location to a consolidation facility requires a shipping paper (see Utility Procedure: ENV-4000P-05, Hazardous Waste Shipping Paper). Contact EFS if there is a large quantity of batteries for waste to determine handling and whether to ship from site to recycler. Transporting ≤ 10 lbs of intact batteries per vehicle does not require a shipping paper. However, document the shipment in the log maintained in the consolidation site's waste storage area. Disposal – Reference ENV 4000P-05-JA06.
PG&E BMP HAZ-5: Lead Paint Removal	For any physical removal, sanding, scraping, needle gunning, blasting, or welding, contact the local Safety Specialist or Paintings and Coating Department. For PG&E Contractor lead paint removal, the Contractor shall adhere to the Contract for worker health and safety. If the Project team has safety concerns prior to or during the Project, immediately contact the Safety Program Consultant.
PG&E BMP HAZ-6: Sulfur Hexafluoride (SF_6) Gas Material/Waste Management	Advanced Specialty Gas (ASG) provides sole-source service in supplying, replacing, removal and recycling of SF6 in all facilities. ASG provides 24-hour service in response to events involving SF6 as well as delivery and removal of all SF6 cylinders. • Contact information: https://www.advancedspecialtygases.com. Before accessing any equipment that may contain SF6 gas byproduct waste, contact the local EFS at least two weeks in advance for assistance in arranging cleanup, transportation, and disposal. • PSC shall retrieve, package, label, and transport SF6 byproduct waste (i.e., fluorides of sulfur, metallic fluorides, etc.). All SF6 byproduct waste that is removed must have proper shipping papers, which could include a remote waste shipping paper or a manifest (manifests require a permanent or temporary EPA identification number). • SF6 cylinder tracking and facility inventory shall be managed in accordance with Utility Procedure TD-3350P-001.
PG&E BMP HAZ-7: Spill Prevention, Control, and Countermeasure (SPCC) Plan	The local/support EFS shall be notified 30 days prior to an SPCC-triggering event occurs. Events that trigger an SPCCP include: • New storage of oil at a facility causing the total oil storage to exceed 1,320 gallons. • Modification to existing oil storage at a facility that contains >1,320 gallons of oil by addition or removal of oil containers >55 gallons.

TABLE 2-14
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

PG&E BMP or FP Number	Description
	If the oil volume is contained in anything greater than 55 gallons, the SPCC Plan must be certified by a licensed engineer. SPCC containment must be installed prior to moving on-site of oil quantities requiring containment. The PM number must remain open until the local/support EFS notifies the team that the plan is certified by an engineer, and any necessary modifications are complete.
PG&E BMP HAZ-8: Underground Electric Cable	Underground electric cable might require special handling and disposal as the cable may potentially be wrapped in lead or asbestos containing material, contain asbestos insulation, and/or oil for insulation. Furthermore, insulating oil used in underground cable may contain PCBs. If evidence of these hazardous materials is identified during the cable replacement, such as weeping oil from the cut end of the cable, the local EFS shall be contacted immediately to arrange for sampling, and to determine transportation and disposal requirements. A PG&E authorized hazardous waste hauler may be required to transport the cable. Arc-proofing wrap that is both friable (brittle, crisp or fragile) and non-friable must be removed by a certified abatement vendor or trained PG&E personnel (PG&E Insulation & Coatings, PSC, Bohm, ACS).
PG&E BMP HAZ-9: Vault Dewatering	Vault dewatering may be required. All vault dewatering must take place in accordance with the Vault Dewatering form.
PG&E BMP HAZ-10: Stormwater BMP Installation	This Project shall require an SWPPP. If the construction crew shall not be installing stormwater BMPs, it is the responsibility of the Project manager to contact the Stormwater Quality Subject Matter Expert (SME) and Environmental Lead prior to construction to request BMP support with as much lead time as possible. Thirty days is preferred. The regional Stormwater SME shall hire a contractor to install, maintain, and remove stormwater BMPs.
PG&E BMP HAZ-11: Construction Dewatering	If dewatering of trenches or excavations is required, the Environmental Lead/Project EFS shall be notified at least 30 days in advance to ensure the appropriate dewatering methods are used, proper notifications are made, and, if necessary, applicable authorizations/permits are obtained. All dewatering activities must be coordinated through the Environmental Lead/Project EFS throughout the duration of the Project.
PG&E BMP HAZ-12: Skyline Terminal Site SMP	PG&E construction activities that occur on the proposed Skyline terminal property will comply with the Site Management Plan (SMP) that was prepared as part of the Covenant for the property.

NOTES:

AATCM = Asbestos Airborne Toxic Control Measure; AB = Assembly Bill; AQMD = Air Quality Management District; ARD = Air Resources District; ASG = Advanced Specialty Gas; bhp = brake horsepower; BMP = best management practice; Cal Fire = California Department of Forestry and Fire Protection; CARB = California Air Resources Board; CDFW = California Department of Fish and Wildlife; CHSC = California Health and Safety Code; Covenant = Covenant and Environmental Restriction on Property; CPUC = California Public Utilities Commission; CRHR = California Register of Historical Resources; CRM = cultural resources monitor; CRS = cultural resources specialist; EFS = environmental field specialist; EPA = Environmental Protection Agency; EPSS = Enhanced Power Line Safety Setting; FP = field protocol; ft. = feet; GHG = greenhouse gas; HCP = habitat conservation plan; HMBP = hazardous materials business plan; hp = horsepower; lbs = pounds; MBTA = Migratory Bird Treaty Act; MOT = materials of trade; mph = miles per hour; MRR = Mandatory Reporting Rule for Greenhouse Gases; MSDS = Material Safety Data Sheet; NOA = Naturally Occurring Asbestos; NRHP = National Register of Historic Places; OFEE = oil-filled electrical equipment; PCB = polychlorinated biphenyl; PERP = Portable Equipment Registration Program; PG&E = Pacific Gas and Electric Company; ppm = parts per million; Project = Power Santa Clara Valley Project; PSPS = Public Safety Power Shutoff; ROW = right-of-way; SF_6 = sulfur hexafluoride; SME = subject matter expert; SMP = Site Management Plan; SPCC = spill prevention, control, and countermeasure; SWPPP = storm water pollution prevention plan; TSDF = treatment, storage, and disposal facility

SOURCE: LSPGC 2025

2.16 References

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CHAPTER 3
Environmental Analysis

3.0 Introduction to Environmental Analysis

3.0.1 Overview

This chapter describes and analyzes the direct, indirect, and cumulative environmental impacts of the Power Santa Clara Valley Project (Project) as they relate to each of the resource considerations identified in the environmental checklist provided in California Environmental Quality Act (CEQA) Guidelines Appendix G, which consist of the following: Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils (including Paleontological Resources), 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, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire. Potential environmental impacts of alternatives to the Project are analyzed and compared to Project impacts in Chapter 4, *Alternatives*.

The California Public Utilities Commission (CPUC) has exclusive jurisdiction over the siting, design, and construction of the Project; therefore, the Project is not subject to local discretionary regulations. CPUC General Order 131-D (GO 131-D), Section XIV.B, states that "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC 2023). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but city and county regulations are not applicable as they do not have jurisdiction over the Project. Because the CPUC has exclusive jurisdiction over the Project siting, design, and construction, the Project is not subject to local land use and zoning regulations or discretionary permits. This chapter identifies local plans and regulations for informational purposes. Although LS Power Grid California, LLC (LSPGC) is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

3.0.2 Baseline Conditions

The environmental baseline for purposes of CEQA consists of the existing physical setting. CEQA Guidelines Section 15125(a) states, in part:

> *An EIR must include a description of the physical environmental conditions in the vicinity of the project. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact*

> *is significant… The purpose of this requirement is to give the public and decision makers the most accurate and understandable picture practically possible of the project's likely near-term and long-term impacts.*

The analysis of each environmental resource issue begins with a description of the actual physical environmental conditions in the area where a project and its alternatives would be implemented. These conditions are also referred to as the "baseline" relative to which project-caused changes are analyzed to determine whether the change is significant for purposes of CEQA (CEQA Guidelines Sections 15125 and 15126.2). For this Draft EIR, unless as otherwise noted, baseline conditions are those as they existed on or about September 18, 2024, the date the Notice of Preparation (NOP) for this Draft EIR was published. The NOP for this Draft EIR is included in **Appendix A**, *Scoping Report*.

3.0.3 Approach to Impact Analysis

3.0.3.1 Impact Significance Criteria

CEQA lead agencies rely on impact significance criteria as benchmarks to determine whether changes to the existing environment caused by a project or an alternative would cause a significant adverse effect. A *significant effect on the environment* is "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project" (CEQA Guidelines Section 15382).

The significance criteria for this Draft EIR are generally based on the questions provided in the CEQA Guidelines Appendix G Environmental Checklist. In addition, the CPUC has identified additional CEQA impact criteria for some environmental issue areas that are specific to the types of projects evaluated by the CPUC to be considered in addition to the criteria identified in Appendix G of the CEQA Guidelines (CPUC 2019).

3.0.3.2 Impact Significance Thresholds

To determine whether the impact of a project-caused change compared to any of the significance criteria could be significant, CEQA lead agencies evaluate the degree of that change relative to an established threshold. CEQA Guidelines Section 15064.7 defines *threshold of significance* as "an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant." Such thresholds may be sourced from a variety of places including general plan policies, ordinances, other agencies' thresholds, and industry standards. The thresholds used in this Draft EIR are identified together with the relevant criteria on a resource-by-resource basis.

3.0.3.3 Significance Conclusions

Impact significance conclusions in this Draft EIR are reached based on information in the record, including scientific and factual data as well as professional knowledge and judgment. Consistent

with CEQA and the CEQA Guidelines, each significance conclusion is characterized as one of the following:

1. **No Impact:** This signifies that the Project or an alternative would not cause any change in the environment relative to the applicable significance threshold; under these circumstances, no mitigation measures are required.
2. **Less-than-Significant Impact:** This signifies that the Project or an alternative could cause an adverse change in the environment, but not one that would be substantial, relative to the applicable significance threshold. Under these circumstances, no mitigation measures are required or may be imposed. The analysis considers whether the Project or alternative could cause or contribute to a potential cumulative effect.
3. **Less than Significant with Mitigation Incorporated:** The Project or an alternative could cause an adverse change in the environment that would be substantial relative to the applicable significance threshold, but the implementation of one or more feasible mitigation measures would reduce the significance of the impact below the established threshold. The analysis considers whether the Project or alternative could cause or contribute to a potential cumulative effect.
4. **Significant and Unavoidable:** The Project or an alternative could cause a substantial adverse change in the environment relative to the applicable significance threshold; however, either no feasible mitigation measures are available or, even with implementation of feasible mitigation measures, the significance of the impact would remain above the established threshold. The analysis considers whether the Project or alternative could cause or contribute to a potential cumulative effect.
5. **Cumulatively Considerable:** This signifies that the Project-specific or alternative-specific contribution to a significant cumulative impact would be considerable when viewed in connection with the incremental impacts of past projects, the impacts of other current projects, and the impacts of reasonably foreseeable probable future projects (as defined in CEQA Guidelines Section 15130).

To avoid or reduce potential significant impacts where feasible, alternatives have been considered or mitigation measures have been recommended to address them.

3.0.3.4 Mitigation Measures

CEQA Guidelines Section 15370 defines *mitigation* to include:

a) Avoiding the impact altogether by not taking a certain action or parts of an action.

b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

e) Compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements.

Mitigation measures are feasible actions intended to avoid or substantially lessen significant impacts identified in the impact analysis. To avoid or reduce significant impacts, feasible mitigation

measures have been recommended to address them. The effectiveness of recommended mitigation measures has been evaluated by analyzing the impact remaining after the implementation of the measure. In some cases, the implementation of more than one mitigation measure may be needed to reduce the significance of an impact below the threshold. Impacts that remain significant after feasible mitigation measures are applied are identified as significant and unavoidable impacts.

3.0.4 Approach to Cumulative Impacts Analysis

As defined in CEQA Guidelines Section 15355, the term *cumulative impacts* refers to two or more individual impacts, which, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from multiple projects is the change in the physical environment that 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 Sections 15355[b] and 15130[a][1]).

The analysis in this section evaluates cumulative impacts on a resource-by-resource basis by considering the incremental impacts of the Project together with the ongoing effects of past, present, and reasonably foreseeable probable future projects that could cause environmental impacts that are closely related to those caused by the Project. Factors considered in determining whether a project is included in the cumulative impact analysis include whether it would cause impacts of the same nature as the Project in the same area at the same time. In each case, the analysis follows the steps listed below. The analysis of whether an alternative could cause or contribute to cumulative impacts is provided in Chapter 4, *Alternatives*, and follows these same steps.

(1) Determine if the Project would result in no impact for any resource area or consideration, in which case the Project could not cause or contribute to any significant cumulative impact. No additional discussion is needed in such instances. For all other instances, the analysis continues.

(2) Define the geographic scope of the impacts associated with each resource area affected by the Project. The geographic scope of the cumulative impacts analysis for each resource area is tailored to the natural boundaries of the affected resource or area of consideration.

(3) Define the temporal scope of the impacts associated with each resource area affected by the Project. For example, are the Project's impacts restricted to a certain period or do they have the potential to occur at any point during the scope of the Project?

(4) Identify relevant plans, projections, and projects for cumulative impact analysis, which consists of resource area-specific trends; projections contained in one or more local, regional, or statewide planning documents; and past, present, and reasonably foreseeable probable future projects.[1] The incremental contribution of past projects generally is reflected in the existing environmental conditions within the cumulative impacts area, which reflect a combination of the natural condition and the ongoing effects of past actions in the affected area.

(5) Identify, on a significance criterion-by-criterion basis, the incremental Project-specific impact before the implementation of any identified mitigation measures. Note whether these impacts

[1] CEQA Guidelines Section 15130(b) recommends that cumulative impacts be analyzed using a "project" or "projection" approach. This Draft EIR uses a project approach.

are temporary or permanent, as well as whether limited to a specific issue (e.g., emissions of nitrogen oxides but not PM_{10}).

(6) Describe the impacts associated with the Project within the geographic and temporal scopes of the respective resource's impacts and determine whether the Project's impacts and the cumulative projects' impacts (when combined) would be significant. If not, the analysis concludes that a less-than-significant cumulative impact would result.

(7) If when combined, the Project's impacts and the cumulative projects' impacts would be significant, then determine whether the Project's incremental impact is cumulatively considerable. A less-than-significant incremental impact may, nonetheless, be cumulatively considerable. The Project's contribution to a significant cumulative impact may not be cumulatively considerable based on the implementation of appropriate mitigation. The cumulative impact analyses first determine whether the Project's incremental impacts would be cumulatively considerable pre-mitigation, and then consider whether they would be cumulatively considerable post-mitigation. Mitigation measures identified at the Project and resource-specific level can be considered in this context to determine whether their implementation would reduce the significance of the cumulative contribution below the established threshold. If, with mitigation, the Project's contribution would not be cumulatively considerable, then the analysis concludes that the Project's cumulative impact would be less than significant. Alternatively, even with the implementation of feasible mitigation measures, if the Project's contribution would remain above the identified threshold, then the analysis concludes that the Project's cumulative impact would be significant and unavoidable.

3.0.4.1 Cumulative Effects Approach

As defined in 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 multiple projects is the change in the physical environment that results from the incremental impact of the proposed 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 Sections 15355[b] and 15130[a][1]).

The analysis in this chapter evaluates potential cumulative impacts on a resource-by-resource basis by considering the incremental impacts of the Project together with the ongoing or anticipated effects of past, present, and reasonably foreseeable probable future projects that would cause environmental impacts that could combine with those caused by the proposal by LSPGC (the Applicant). Factors considered in determining whether a project is included in the cumulative scenario include whether it would cause impacts of the same nature as the Project in the same area at the same time.

Cumulative Scenario

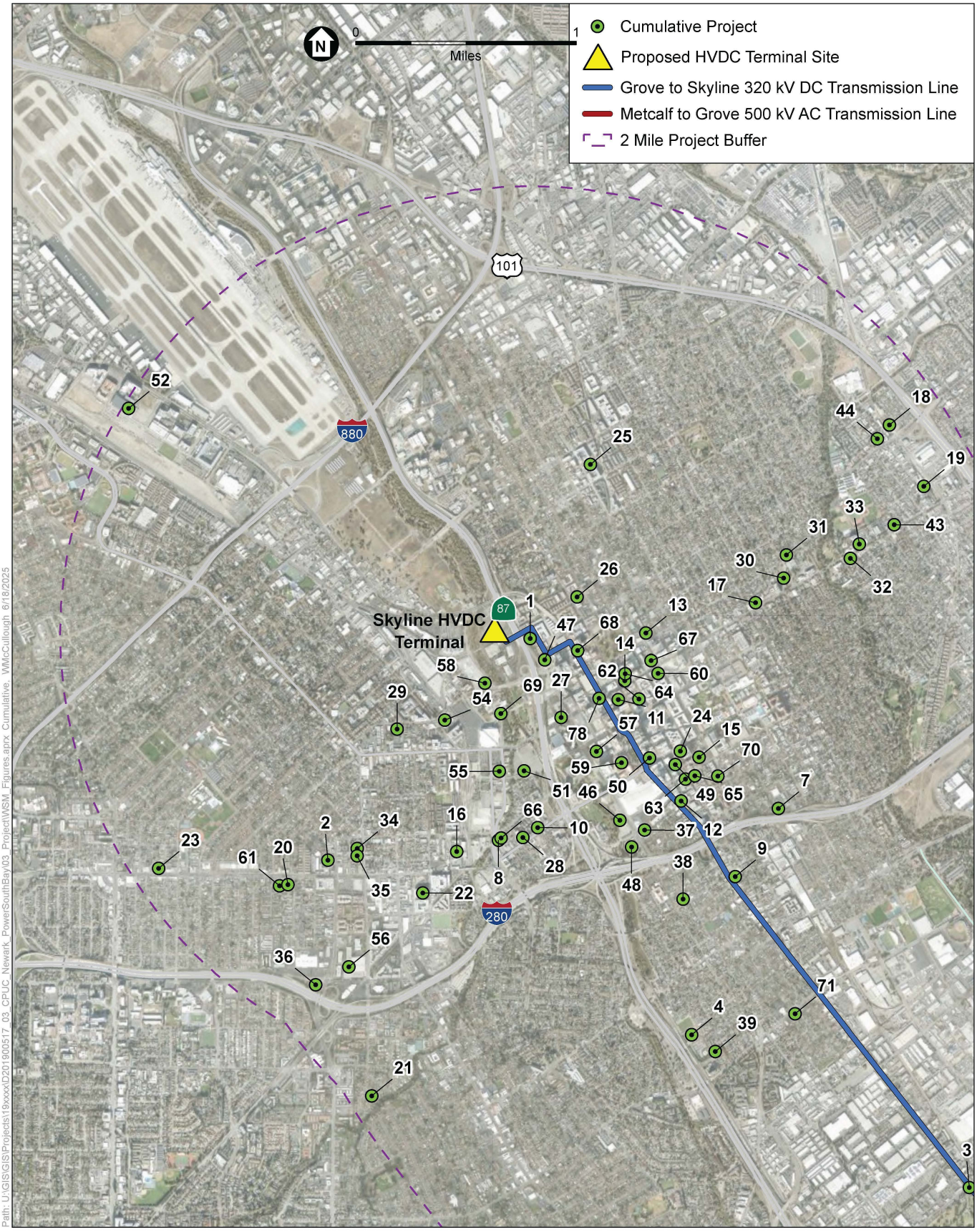
The term *cumulative scenario* is used in this Draft EIR to refer to the projects that are considered in the cumulative impact analysis. This Draft EIR relies on a "list of projects" approach (CEQA Guidelines Section 15130[b]). **Table 3.0-1**, *Cumulative Projects List*, identifies the projects within a 2-mile radius of the Project alignments that could cause cumulative impacts that could combine with those of the Project, the locations of which are shown in **Figure 3.0-1**, *Cumulative Projects*. Although the figure shows only those projects located within a 2-mile radius of the

Project sites, the geographic area of cumulative consideration has been established on a resource-by-resource basis throughout Chapter 3 as dictated by relevant physical boundaries (such as the extent of the groundwater basin) and is not limited by the area shown in Figure 3.0-1.

Cumulative Impacts Analysis

Incremental impacts resulting from initial site preparation and construction, operation and maintenance could combine with the incremental impacts of other projects to cause or contribute to cumulative effects. Direct and indirect effects of the Project are analyzed on a resource-by-resource basis throughout Chapter 3; a comparative analysis of the cumulative impacts of the alternatives is provided in Chapter 4, *Alternatives*. Where the Project or an alternative would have no impact on a given resource, it could not cause or contribute to any cumulative impact to such a resource.

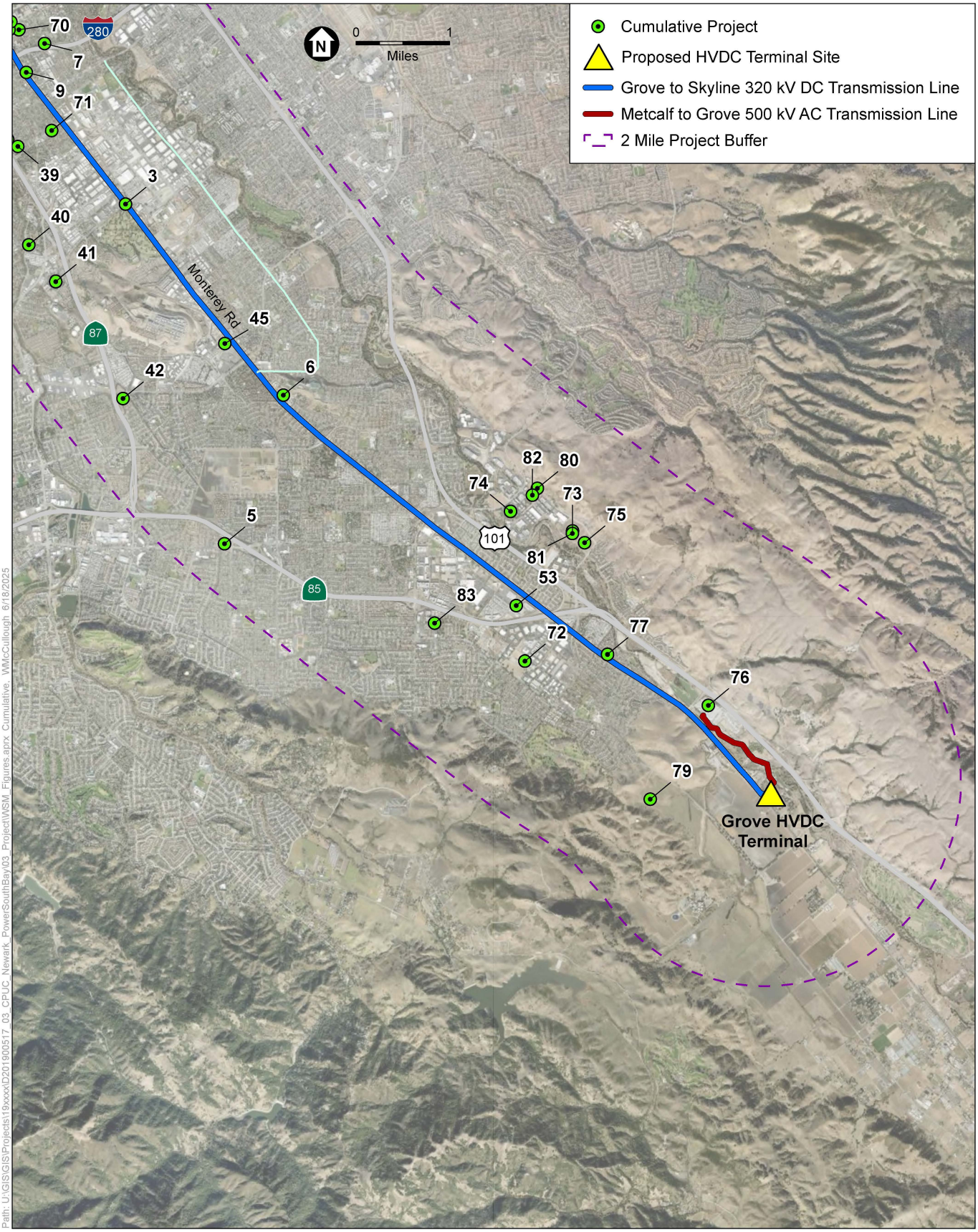
For the remaining resource areas, this Draft EIR analyzes potential incremental impacts of the Project and alternatives combined with the incremental impacts of past, present, and reasonably foreseeable future projects. It determines whether the incremental impacts of the Project would be significant and, if so, whether the incremental contribution of the Project would be cumulatively considerable. As noted above, the geographic scope of the cumulative effects analysis for each resource area is tailored to the natural boundaries of the affected resource. Unless otherwise noted in the analysis, cumulative effects have the potential to occur during any phase of the Project, from the moment on-site activities begin to the conclusion of post-Project site restoration activities. Existing conditions within the cumulative impacts area reflect a combination of natural conditions and the ongoing effects of past actions in the affected area.



SOURCE: ESA, 2024; San Jose, 2025

Power Santa Clara Valley Project

Figure 3.0-1a
Cumulative Projects



SOURCE: ESA, 2024; San Jose, 2025

Power Santa Clara Valley Project

Figure 3.0-1b
Cumulative Projects

TABLE 3.0-1
CUMULATIVE PROJECTS WITHIN 2 MILES OF THE PROJECT

Cumulative Map No.	Project Name	Description	Location	Approximate Distance and Direction to Project	Project Status
1	Westbank Terraine	Construction of a 345-unit residential building with 12,623 square feet of retail space. Includes a nine-story parking garage with 621 parking spaces.	323 Terraine Street, San José	0 mile (same as Staging Area 11)	Planning approved (City of San José 2025a)
2	Milestone Meridian	Removal of nine non-ordinance sized trees, the demolition of three existing buildings totaling approximately 19,000 square feet and the construction of a five to seven-story mixed-use building with up to 241 residential units and approximately 1,400 square feet of ground-floor commercial on an approximately 1.3 gross acre site.	259 Meridian, San José	1 mile southwest of Staging Area 10	Planning review (City of San José 2025b)
3	Communications Hill	Planned Development Permit Amendment for Phases 3 and 4 of the Communications Hill project to construct 798 residences.	0 Curtner Avenue, San José	0.2 mile southwest from Grove to Skyline transmission line	Planning approved (City of San José 2025c)
4	Tamien Residential	Option A (569 total units - 135 affordable by CORE + 434 market rate by Republic Urban). Option B has a slightly lower unit count of 420 market rate units).	1197 Lick Avenue, San José	0.6 mile southwest from the Grove to Skyline transmission line	Planning approved (City of San José 2025d)
5	Blossom Hill Signature	Construction of two six- story residential buildings, with 10,750 square feet of commercial space, 231 market rate units, and 84 affordable units.	605 Blossom Hill Road, Los Gatos	1.5 miles southwest of the Grove to Skyline transmission line	Planning approved (City of San José 2025e)
6	Monterey Mixed Use	Mixed-use project with 1,075 square feet of retail and 426 affordable, multi-family units on a 2.29-gross acre site.	4300 Monterey Road, San José	0 mile (same property as Staging Area 5)	Under construction (City of San José 2025f)
7	605 Affordable	Construction of a 100 percent affordable 289,324 square feet apartment building (29 stories) with a total of up to 345 residential units.	605 South 2nd Street, San José	200 feet east of the Grove to Skyline transmission line	Planning approved (City of San José 2025g)
8	Montgomery Plaza I	21-story residential development with 126 residential units.	565 Lorraine Ave, San José	0.2 mile southeast of Staging Area 10	Planning approved (City of San José 2025i)
9	Martha Gardens	6-story building 166 units, 1,510-square feet of ground floor retail, on 1.2-gross acre site (five combined parcels).	802 South 1st St, San José	70 feet northeast of the Grove to Skyline transmission line	Pre-Construction review (City of San José 2025j)
10	Aquino	Increase the unit count from 272 to 278 units from a previously approved Special Use Permit (File No. SP20-019) without any changes to the approved building envelope or building height.	498 West San Carlos, San José	0.2 mile southwest of Staging Area 10	Pre-Construction review (City of San José 2025k)
11	27 West	Construction of a 22-story mixed use building with 374 units and 35,712 sf retail space.	27 S 1st St, San José	265 feet northeast of the Grove to Skyline transmission line	Planning approved (City of San José 2025l)

TABLE 3.0-1
CUMULATIVE PROJECTS WITHIN 2 MILES OF THE PROJECT

Cumulative Map No.	Project Name	Description	Location	Approximate Distance and Direction to Project	Project Status
12	Gateway Tower Affordable	Partial demolition Landmark No. 74, and new 15-story mixed-use building of 220 affordable residential units and 3,760 square feet ground-floor commercial space	470 S Market Street	0 mile (adjacent to the Grove to Skyline transmission line)	Planning review (City of San José 2025m)
13	SJSU Student Housing Tower	270-foot tower 703,360 square feet gross; 8,423 square feet retail, 287 care parking and 427 bike spots 23-story student housing, 1,424 beds.	100 N 4th St, San José, CA 95112	0.3 mile northwest of the Grove to Skyline transmission line	Planning approved (City of San José 2025n)
14	Eterna Tower	Demolition of the existing two-story building on the site to allow construction of a 26-story, approximately 184,667-gross square foot mixed-use building on an approximately 0.18-acre site. The building would accommodate 192 residential units. The proposed building would have a height of just over 273 feet.	17 thru 29 E Santa Clara St, San José	0.13 mile northwest of the Grove to Skyline transmission line	Planning approved (City of San José 2025o; 2025p)
15	4th Street Metro Station	Construct an 18-story building with 218 residential units with 1,345 sf ground floor retail and 12,381 sf rooftop eating establishment.	439 S 4th St, San José, near E. San Salvador St.	0.22 mile northwest of the Grove to Skyline transmission line	Planning approved (City of San José 2025q)
16	244 McEvoy Street	Construction of two 5-story apartment buildings consisting of 689 units (375 affordable units) and 4,005 square feet of commercial space.	205 Dupont St, San José	0.4 mile west-southwest of Staging Area 10	Planning approved (City of San José 2025r)
17	E SC Student Housing	6-story mixed use building with 41 student housing units and 3,801 square feet of commercial space.	535 E. Santa Clara Street, San José	0.8 mile east of the Grove to Skyline transmission line	Planning approved (City of San José 2025s)
18	Little Portugal Village	Demolition of six buildings (a 12-unit MF residential building, a 28-unit MF building, a triplex, and 3 sf homes). Construction of 3 buildings of 45 units, 235 units and 633 units and 14,000 sf retail.	1298 Tripp Ave; 1325 & 1347 E. Julian St. San José	1.7 miles east-northeast of the Grove to Skyline transmission line	Planning approved (City of San José 2025t)
19	HC Investments/ 198 Residences	Construction of a new six-story multifamily residential building with 198 residential units, including 5% of the units restricted as affordable to very-low-income households or 10% for low-income households.	70 N 27th St, San José	1.7 miles east-northeast of the Grove to Skyline transmission line	Planning approved (City of San José 2025u)
20	MV3 Residential	Eleven residential buildings, two commercial buildings, and two service structures.	1520 W San Carlos St, San José	1.2 miles west-southwest of Staging Area 10.	Planning approved (City of San José 2025v)
21	Evershine 206 Unit Residential	Demolition of a two-story vacant building and the construction of a 206-unit seven-story apartment building, with five stories of residential over two levels of at-grade and partial basement parking, on a 2.22-gross-acre site.	1050 St Elizabeth Dr, San José	1.9 miles southwest of Staging Area 10.	Planning approved (City of San José 2025w)

TABLE 3.0-1
CUMULATIVE PROJECTS WITHIN 2 MILES OF THE PROJECT

Cumulative Map No.	Project Name	Description	Location	Approximate Distance and Direction to Project	Project Status
22	Ohlone Block A	Decrease the height of a previously approved mixed-use residential tower from 14 stories to 12 stories, increase the podium apartment from four stories to six stories, and allow a alternative parking arrangement (puzzle lift) on an approximately 2.66-gross acre site.	SW corner of West San Carlos St and Sunol St	0.6 mile west-southwest of Staging Area 10	Planning approved (City of San José 2025x)
23	Greymont MF Housing + Residential Care Facility	A CUP for demo 4 commercial buildings, construction of 7-story, 246-bed residential care facility, 61 multifamily residential units, and 6,000 square feet retail space. This includes five commercial condo units.	1881 W San Carlos St, San José	1.7 miles west-southwest of Staging Area 10.	Planning approved (City of San José 2025y)
24	Bank of Italy Residential Conversion	New residential units on floors 2-12; Basement interior layout revised including utility locations Revised floor 1 main lobby Minor revisions to interior layout of floor 1, and mezzanines new amenity space on floor 2.	12 S 1st St, San José	750 feet northeast of the Grove to Skyline transmission line	Planning approved (City of San José 2025z)
25	Japantown Mixed Use	Construction of a six-story building with 5,540 sf of gallery space, 8,913 sq for music practice/performance space, and 65 residential units.	653 N 7th St, San José	0.8 mile northeast of Staging Area 12.	Planning review (City of San José 2025aa)
26	Mustafa Residential	118 residential units.	380 N First St, San José	0.8 mile northeast of Staging Area 12.	Planning review (City of San José 2025bb)
27	Almaden Corner Hotel	Construction of a 19-story hotel with 272 guest rooms.	8 North Almaden Boulevard, San José	430 feet west of the Grove to Skyline transmission line	Pre-construction review (City of San José 2025cc)
28	Keystone West at Downtown West	Project will be a 176-room Marriott Towne Place Suites.	495 West San Carlos Street, San José	0.7 mile west of the Grove to Skyline transmission line	Under construction (City of San José 2025dd)
29	950 W Julian	Construction of an 8-story affordable housing building with 300 residential units.	950 West Julian Street, San José	0.5 mile southwest of the Skyline terminal	Under construction (City of San José 2025ee)
30	675 E. Santa Clara Street	SB 35 ministerial permit for 1) a 5- story senior housing development with 64 units, 2) 8-story multifamily development with 114 apartment units, and 3) 36 for-sale, attached townhomes; includes request for DB with (5) concessions and (21) waivers.	675 East Santa Clara Street, San José	1.1 miles northeast of the Grove to Skyline transmission line	Planning approved (City of San José 2025ff)
31	Hawthorn Sr. Housing	Construction of a 103-unit, 100% affordable residential development on an approximately 1.11 gross-acre site.	124 North 15th Street, San José	1.2 miles northeast of the Grove to Skyline transmission line	Under construction (City of San José 2025gg)
32	Milestone E. Santa Clara	Ministerial Permit issued 8/8/23.	934-948 East Santa Clara Street, San José	1.3 miles east of the Grove to Skyline transmission line	Planning approved (City of San José 2025hh)

TABLE 3.0-1
CUMULATIVE PROJECTS WITHIN 2 MILES OF THE PROJECT

Cumulative Map No.	Project Name	Description	Location	Approximate Distance and Direction to Project	Project Status
33	995 E Santa Clara St	Ministerial permit issued 9/3/2022.	995 East Santa Clara Street, San José	1.4 miles east of the Grove to Skyline transmission line	Planning approved (City of San José 2025ii)
34	Alvarado Park (Race St Senior Housing)	Demolition of 13 structures and the construction of a 90-unit Senior Housing building), 2,000 square feet of commercial retail a to be built in phases on 2.3 gross acre site.	237 Race Street, San José	1.4 miles west of the Grove to Skyline transmission line	Under construction (City of San José 2025jj)
35	Bellarmino Place (Race St Fish site)	Demolition of 13 structures and the construction of a 116-unit apartment building on same site as above.	253 Race Street, San José	0.4 mile west of the Grove to Skyline transmission line	Under construction (City of San José 2025kk)
36	Parkmoor (The Hub)	Construction of 81-unit, 100% affordable multi-family development with 17,000-sf of social services center (The Hub) on an approximately 1.62 gross-acre site.	1510/1540 Parkmoor Avenue, San José	1.8 miles west of the Grove to Skyline transmission line	Under construction (City of San José 2025ll)
37	501 Almaden Ave	Ministerial Permit issued 9/7/2023.	501 Almaden Avenue, San José	0.2 mile west of the Grove to Skyline transmission line	Planning approved (City of San José 2025mm)
38	771-797 Almaden Avenue	Ministerial permit approved 1/28/2022. Condo Map approved 10//25/2023. Awaiting funding. National Environmental Policy Act Request Release of Funds submitted to HUD 9/21/2023.	771 – 797 Almaden Avenue	0.3 mile west of the Grove to Skyline transmission line	Planning approved (City of San José 2025nn)
39	390 Floyd	SB35 Ministerial Permit to construct a 7-story building with 135, 100% affordable senior housing units on a 0.49-gross acre site.	390 Floyd Avenue, San José	0.6 mile west of the Grove to Skyline transmission line	Planning review (City of San José 2025oo)
40	2080 Almaden Road (Affirmed)	The 6-story project is proposed at the corner of 2080 Almaden Rd & 2112 Canoas Garden Ave and it features 80 units. Total floor residential area will be 69,338 square feet over 0.59 gross acre site.	2080 Almaden Rd & 2112 Canoas Garden Avenue, San José	1.2 miles west of the Grove to Skyline transmission line	Planning approved (Catalyze SV 2025; City of San José 2025pp)
41	The Gardens At Cathedral of Faith	Ministerial Permit (SB 35) issued 1/10/2023.	2315 Canoas Garden, San José	1.2 miles west of the Grove to Skyline transmission line	Planning approved (City of San José 2025qq)
42	VTA Capitol Lot MidPen JV	SB 35 Ministerial Permit for mixed-use, 100% affordable 203 rental units, including 2 manager units, a new transit plaza and bus drop off and approximately 600-square-foot enclosed exclusive amenity space.	Southwest corner of E. Capitol Expressway and Narvaez Avenue, San José	1.3 miles west of the Grove to Skyline transmission line	Planning review (City of San José 2025rr)
43	Algarve (Reed)	Ministerial Permit approved 11/19/2020.	1135 E. Santa Clara Street, San José	1.5 miles east of the Grove to Skyline transmission line	Planning approved (City of San José 2025ss)
44	1271 E. Julian Street Affordable	Site Development Permit for 7-story, 305-unit project (303 studios, 1X2BR and 1X3BR unit) at or below 80% AMI (studios only).	1271 East Julian Street, San José	1.7 miles east of the Grove to Skyline transmission line	Planning approved (City of San José 2025tt)

TABLE 3.0-1
CUMULATIVE PROJECTS WITHIN 2 MILES OF THE PROJECT

Cumulative Map No.	Project Name	Description	Location	Approximate Distance and Direction to Project	Project Status
45	Granite Rock Expansion	Planning Development Permit to allow the expansion of an existing concrete and asphalt recycling, manufacturing and distribution facility.	120 Granite Rock Way, San José	300 feet southwest of the Grove to Skyline transmission line	Planning approved (City of San José 2025uu)
46	South Almaden Offices	Demolition of an existing parking lot and the construction of up to approximately 1,727,777 square feet of office in two 16-story towers (North Tower and South Tower) on an approximately 3.57-acre site. Construction of the proposed project is estimated to occur for a period of 51 months. Extended construction hours include Saturday work from 7:00 AM to 7:00 PM and 24-hour concrete pours for up to 12 days per year over the course of the entire project construction period.	Woz Way and Almaden, San José	0.2 mile southwest of the Grove to Skyline transmission line	Planning approved (City of San José 2025vv)
47	Arbor	Construction of a 14-story, 512,031 square feet commercial building.	255 West Julian Street, San José	42 feet west of the Grove to Skyline transmission line	Planning approved (City of San José 2025xx)
48	KT Urban Office @ Woz	General Plan Amendment (GP19-008) to change the General Plan land use designation from Public/Quasi-Public to Downtown, and Site Development Permit (H20-004) to allow the demolition of 16 single-family homes, and the construction of two 20-story, 297-foot tall, approximately 1.8-million-square-foot office towers with approximately 6,000-square feet of ground floor retail, 4 levels of below grade parking and 4 levels of on and above grade parking on a 3.08-gross acre site.	276 Woz Way, San José	0.29 mile southwest of the Grove to Skyline transmission line	Planning approved (City of San José 2025yy)
49	The Orchard Office ("Valley Title")	20-story building with two towers totaling approximately 1.99 million square feet, including 60,430 gross square feet of ground floor commercial retail space and 1,319,340 gross square feet of commercial office space with five levels of underground parking on a 2.84-gross acre site; and to allow an alternative design to connect the two towers on Levels 10 and 11 with an additional 15,900 square feet.	345 S 2nd Street, San José	0.1 mile northeast of the Grove to Skyline transmission line	Planning approved (City of San José 2025zz)
50	Block 8	Construction of up to a 20-story commercial building with approximately 16,500 square feet of commercial retail and approximately 628,000 square feet of commercial office on an approximately 1.5-gross acre site.	282 S Market St, San José	64 feet east of the Grove to Skyline transmission line	Planning approved (City of San José 2025aaa)
51	Diridon Plaza Transit-Oriented Development	1.2 M square feet of commercial development on an approximately 3.09- gross acre site.	33 S Montgomery Street, San José	0.48 mile southwest of the Grove to Skyline transmission line	Planning review (City of San José 2025bbb)

TABLE 3.0-1
CUMULATIVE PROJECTS WITHIN 2 MILES OF THE PROJECT

Cumulative Map No.	Project Name	Description	Location	Approximate Distance and Direction to Project	Project Status
52	Coleman Highline Building 5	Construction of 292,455-square- foot, 5-story office, a 12,000 square feet, 2-story amenity building, and a 3,414-square-foot utility enclosure on 4.5-acre site located on the west corner of Coleman Ave and Aviation Ave.	11879-1185 Coleman, San José	1.9 miles northwest of the Skyline terminal	Planning approved (City of San José 2025ccc)
53	Bloom Energy	Construction of a 5-story, 92,350 square feet fuel cell structure to the east of the SV11 data center building approved under PD15-031.	5 Great Oaks Boulevard, San José	295 feet southwest of the Grove to Skyline transmission line	Under construction (City of San José 2025ddd)
54	Stockton Office Tower	Construction of a 16-story, approximately 1.3M square feet office building.	250 Stockton, San José	0.36 mile southwest of the Skyline terminal	Planning approved (City of San José 2025eee)
55	Downtown West Google	Development up to 5,900 residential units; up to 7,300,000 gross square feet (GSF) of office space; up to 500,000 GSF of active uses such as retail, cultural, arts, etc.; up to 300 hotel rooms; up to 800 rooms of limited-term corporate accommodations; up to two event and conference centers totaling up to 100,000 GSF; up to two central utility plants totaling approximately 130,000 GSF; logistic/warehouse(s) totaling approximately 100,000 GSF and approximately 15 acres of open space, all on approximately 80 acres. The project also proposes infrastructure, transportation, and public realm improvements.	450 West Santa Clara St, San José	0.36 mile southwest of the Grove to Skyline transmission line	Planning approved (City of San José 2025fff)
56	Avenues School	Rezoning from Industrial Park to Combined Industrial/Commercial and construction of 354,332 square feet in seven buildings for a school.	529 Race St, San José	1.03 miles southwest of Staging Area 10	Planning approved (City of San José 2025ggg)
57	CityView Plaza	Construction of an approximately 3.4 million sf office development.	150 Almaden Boulevard, San José	0.2 mile west of the Grove to Skyline transmission line	Planning approved (City of San José 2025hhh)
58	Platform 16	Construction of 1 million sf office.	440 W. Julian Street	0.2 southwest of the Skyline terminal	Pre-construction review (City of San José 2025iii)
59	Park Habitat	Construction of 1,241,820 sf of Office Space with ground floor museum and retail space.	180 Park Avenue, San José	0.1 mile west of the Grove to Skyline transmission line	Pre-construction review (City of San José 2025jjj)
60	Suzaco	Retain historic façades and new ground floor retail/restaurant space and one level of below-grade retail (totaling approximately 11,790 square feet), remaining floors consist of office space	142-150 E. Santa Clara Street	0.3 mile east of the Grove to Skyline transmission line	Planning approved (City of San José 2025kkk)

TABLE 3.0-1
CUMULATIVE PROJECTS WITHIN 2 MILES OF THE PROJECT

Cumulative Map No.	Project Name	Description	Location	Approximate Distance and Direction to Project	Project Status
Project Type: Mixed Use					
61	San Carlos Housing	8-story mixed use building consisting of 237 multifamily residential units and 16,890 square feet of commercial space.	1530 West San Carlos, San José	1.42 miles southwest of the Skyline terminal	Planning approved (City of San José 2025lll)
62	Energy Hub (aka, Fountain Alley)	Construction of a 21-story building with 194 residential units and 405,000 square feet of office space with 31,959 square feet ground floor retail space.	35 South 2nd Street, San José	0.2 mile northeast of the Grove to Skyline transmission line	Planning approved (City of San José 2025mmm)
63	The Orchard Residential ("Bo Town")	Construction of a 29-story building with 540 residential units and 7,430 square feet of commercial.	409 S 2nd St, San José	0.1 mile northeast of the Grove to Skyline transmission line	Pre-construction review (City of San José 2025nnn)
64	19 North 2nd St	Demolition of the exiting building and construction of 37,240 square feet of commercial space and 210 residential units.	19 North 2nd St, San José	0.2 mile northeast of the Grove to Skyline transmission line	Planning approved (City of San José 2025ooo)
65	420 South 2nd	Special Use Permit to allow construction of two mixed-use towers consisting of up to 254 residential units and approximately 8,000 square feet of ground floor commercial space.	420 S 2nd St, San José	0.1 mile northeast of the Grove to Skyline transmission line	Planning approved (City of San José 2025ppp)
66	Montgomery Plaza II	Site Development Permit to allow the demolition of an existing single-family residence for the construction of a 29-story mixed-use building with 2,460 square feet of retail space and 264 residential units.	543 Lorraine Ave, San José	0.2 mile southwest of Staging Area 10	Planning approved (City of San José 2025qqq)
67	Echo/Icon	Special Use Permit to construct a mixed use project with 415 residential units, 525,000 square feet of office, and 8,500 square feet of retail space.	147 East Santa Clara St, San José	0.3 mile northeast of the Grove to Skyline transmission line	Planning approved (City of San José 2025rrr)
68	Julian Street and St. James Street Couplet Conversion Project	This project provides funding for a one-way to two-way traffic conversion to improve roadway functionality and safety for all roadway users and to improve neighborhood livability. The project includes, but is not limited to: restriping the street for two-way traffic (one lane in each direction); new and modified signals to accommodate two-way traffic and improve signal responsiveness for pedestrians and bicyclists; streetlights (new pedestrian-scale lighting and conversion of existing lights to smart, energy efficient lighting); and amenities for livability traffic calming, and complete streets, including street trees, wayfinding information, refurbished non-functional foundations as plantes, green backed bicycle sharrows, bike racks, accessible ramps, and high-visibility/decorative crosswalks.	91 West St James Street, San José	0.12 mile northeast of the Grove to Skyline transmission line	Currently under design (95 percent). Design expected to be completed April 2025. Award: 10/07/2025 Construction start: March 2026. Est. Completion: 12/03/2026 (City of San José 2025sss)

TABLE 3.0-1
CUMULATIVE PROJECTS WITHIN 2 MILES OF THE PROJECT

Cumulative Map No.	Project Name	Description	Location	Approximate Distance and Direction to Project	Project Status
69	Milligan Parking Lot Project	The approximately 2.5-acre project site consists of five parcels and is in downtown San José. A surface parking lot will be developed on this site to provide up to several hundred parking spaces to help mitigate loss of public parking during construction of Diridon Station transit improvements.	447 West Saint John Street, San José	0.3 mile southwest of the Grove to Skyline transmission line	Award: 6/11/2024 Construction start: 9/23/2024 Est. Completion: 09/29/2025 (City of San José 2025ttt)
70	The Mark Residential Tower	Construction of a 240-unit residential building.	459 South 4th Street, San José	0.25 mile east of the Grove to Skyline transmission line	Planning approved (City of San José 2025uuu)
71	10242 - PARK: Alma Park Design and Construction	Design and construction of a 0.33- acre park. Park elements include: street trees, fences and gates, trellis, play equipment, tables and benches, resilient rubber surfacing, trash enclosure, seat wall, movie wall, and planting.	100 West Alma Avenue, San José	0.15 mile southwest of the Grove to Skyline transmission line	Award: 05/21/2026 Construction start: 07/29/2026; Est. Completion: 03/08/2027 (City of San José 2025vvv)
72	Equinix Data Center	Construction of a 5-story, 547,050 SF data center	123 Great Oaks Boulevard, San José	0.6 mile southwest of the Grove to Skyline transmission line	Under construction (City of San José 2025ww)
73	Piercy Hines Industrial Distribution/ Manufacturing/ R&D	Development of two industrial buildings totaling approximately 422,670 square feet on an approximately 28.89 gross acre site.	550 Piercy Road, San José	1 mile northeast of the Grove to Skyline transmission line	Pre-construction review (City of San José 2025xxx)
74	Renesas Tenant Improvement	241,796 square-foot tenant improvement for building offices, labs, conference rooms, huddle rooms, phone rooms, break rooms, mother's rooms and IDF rooms.	6000 Silver Creek Valley Road, San José	0.6 mile northeast of the Grove to Skyline transmission line	Pre-construction review (City of San José 2025yyy)
75	Piercy Hines Tilt Up Shell Bldg	Construction of one new 216,244-square foot industrial building and removal of two ordinance-sized and 10 non-ordinance sized trees, on an approximately 15.92-gross acre site.	650 Piercy Road/6488 Hellyer Avenue, San José	1 mile northeast of the Grove to Skyline transmission line	Pre-construction review (City of San José 2025zzz)
76	Vasona- Metcalf 230 kV Line Limiting Elements Removal	To remove the limiting elements for Vasona-Metcalf 230 kV line at Vasona and Metcalf substations to achieve the line conductor rating. The objective is to upgrade terminal equipment rating to achieve full conductor capacity. Expected construction start in October 2024. Expected in-service date is June 2025.	150 Metcalf Road, San José	Adjacent at the PG&E Metcalf Substation	Initiating expected to be complete in June 2025. (CAISO 2024; CEERT 2023)

TABLE 3.0-1
CUMULATIVE PROJECTS WITHIN 2 MILES OF THE PROJECT

Cumulative Map No.	Project Name	Description	Location	Approximate Distance and Direction to Project	Project Status
77	California High Speed Rail (CHSR) – San José to Merced Section	Construction and Operation of high- speed rail system spanning 520 miles from San Diego to San Francisco and Sacramento. The San José to Merced project section overlaps with the San Francisco to San José project section to the north and the Central Valley Wye project section to the east. This route will run from the city of Santa Clara, through Diridon Station in downtown San José to Gilroy, across the Pacheco Pass, to the western limits of the Central Valley Wye, approximately nine miles northeast of Los Banos in Merced County.	Within the Project area, the CHSR would parallel existing rails line, largely adjacent to Monterey Road.	Within approximately 50 feet from the Grove to Skyline 320 kV DC transmission line alignment	Final Environmental Impact Report/ Environmental Impact Statement certified April 2022; estimated date for completion is 2031. (CHSRA 2025)
78	Bay Area Rapid Transit (BART) Silicon Valley Phase II	VTA's BART Silicon Valley Phase II Extension (BSVII) Project is a six-mile, four-station extension of the regional BART system from Berryessa/North through downtown San José to the City of Santa Clara, serving 55,000 weekday riders. The BSVII Project includes a six-mile extension from the existing Berryessa/North San José BART Station, with three underground station platforms, one ground-level station, and a new maintenance and storage facility.	From Fremont through downtown San José and into the City of Santa Clara.	Crosses the Grove to Skyline transmission line at the intersection of Almaden Avenue and West Santa Clara Street.	Construction (VTA 2025)
79	Steppingstone Laguna Seca Wetlands Restoration Project	The project will investigate and decommission subsurface agricultural drains believed to be draining groundwater away from Laguna Seca wetland, through targeted excavation. Two beaver dam analogs will be built from locally collected natural materials and installed in an artificial channel draining the wetland area. These actions will increase the amount of water retained and the duration of inundation in Laguna Seca to benefit aquatic species.	This project is located 1.0 mile northwest of Grove Terminal and 0.5 mile from the Grove to Skyline transmission line	A categorical exemption was filed in November 2024. The project is currently in environmental permitting and planned for construction in the spring and summer of 2025.	(CEQAnet 2025)
80	455 Piercy Rd Industrial Warehouse Project	Proposed industrial building would be approximately 121,580 square feet, consisting of approximately 116,580 square feet of warehouse space and approximately 5,000 square feet of mezzanine office space. The maximum height of the proposed structure would be 48 feet.	455 Piercy Road, northwest of the intersection of Piercy Road and Hellyer Avenue, San José	1.3 miles northwest of Staging Area 4	Approved (City of San José 2025aaaa)
81	550 Piercy Rd Industrial Development Project	Construction of two industrial buildings on a 28.9-acre single vacant parcel. The total square footage of the proposed industrial buildings would be 430,000 square feet, with 257,149 square feet for Building 1 and 172,851 square feet for Building 2.	550 Piercy Road (Piercy Rd to the north and Hellyer Avenue to the south), San José	0.8 mile north of Staging Area 4	Approved (grading permits issued) (City of San José 2025bbbb)

TABLE 3.0-1
CUMULATIVE PROJECTS WITHIN 2 MILES OF THE PROJECT

Cumulative Map No.	Project Name	Description	Location	Approximate Distance and Direction to Project	Project Status
82	469 Piercy Rd Site Development Project	The 5.93-acre project site is located at 459 and 469 Piercy Road in the City of San José, on the northwest corner of Piercy Road and Hellyer Avenue. The proposed project would demolish the existing single-family residential structure and redevelop the property with an approximately 134,605 square foot (sf) warehouse building	459 and 469 Piercy Road San José	1.3 miles northwest of Staging Area 4	Approved (grading permits issued) (City of San José 2025cccc)
83	Kaiser Permanente San José Medical Center	Demolish the existing 250,000-square foot hospital and construct a new 685,000-square feet hospital (including basement), a new central utility plant (energy center), and a parking structure at their San José Medical Center campus ("SJMC campus" or "campus").	250 Hospital Parkway, San José	0.6 miles east/northeast of Grove to Skyline transmission line	Approved (under construction) (City of San José 2025dddd)

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3.1 Aesthetics

This section evaluates the Project's potential impacts on aesthetics. It includes information about the physical and regulatory setting and identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions for the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to aesthetics.

3.1.1 Visual Resources Definitions

The following key terms are used in this analysis of aesthetics and visual resources.

A ***viewshed*** for a project is the surrounding geographic area from which a project is likely to be seen, based on topography, atmospheric conditions, land use patterns, and roadway orientations, including publicly accessible vantage points. Proximity of a project to a vantage point in the viewshed is categorized into three ***distance zones*** based off the position of the viewer and are measured from one static point: ***foreground*** (up to 0.5 mile from the viewer), ***middleground*** (0.5 mile to 3 miles from the viewer), and ***background*** (beyond 3 miles from the viewer).

Scenic resources are defined as landscape patterns and features that are considered visually or aesthetically pleasing, and therefore contribute positively to the definition of a distinct community or region. Natural and built features that comprise landscape patterns are visual resources that can be viewed by the general public, enhancing their experience and appreciation of the environment. Scenic resources may include trees or important vegetation; landform elements (e.g., hills, ridgelines, or rock outcroppings); water features (e.g., rivers, bays, or reservoirs); and landmarks, important buildings, or historic structures.

Scenic vista is an area that is designated, signed, and accessible to the public for the purposes of viewing and sightseeing. These designated viewing locations are recognized and valued for their scenic quality.

A ***scenic highway*** is any stretch of public roadway that is designated as a scenic corridor by a federal, state, or local agency. A ***state scenic highway*** is one that has been designated or deemed eligible for inclusion in the California State Scenic Highways program, which is explained in Section 3.1.6, *Regulatory Setting*.

A ***viewpoint***, in the context of this analysis, is a publicly accessible vantage point on a travel route or at a use area or a potential use area, where the view of a proposed activity would be most visible. For the purposes of the following analysis, viewpoints were identified to develop visual simulations of views of the Project sites.

Visual character is the arrangement of a particular landscape as visually defined by the variety and intensity of the landscape features and the four basic visual elements of form, line, color, and texture, giving the landscape in view a distinctive quality.

Visual quality is the overall visual impression or attractiveness of a place as determined by the landscape characteristics, which may include landforms, rock forms, water features, and vegetation patterns. The attributes of line, texture, and color combine in various ways to form landscape characteristics whose coherence, vividness, uniqueness, harmony, contrast, 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*: generally lacking in natural or cultural visual resource amenities typical of the region within which a project is located,
- *Representative*: typical or characteristic of the region's natural or cultural visual amenities, or
- *Distinctive*: unique or exemplary of the region's natural or cultural scenic amenities.

Viewer exposure pertains to 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*: The proximity of viewers to a project.
- *Viewing angle*: Whether a 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 within a viewshed or restricted by terrain, vegetation, or structures.
- Duration of view.

Viewer types and volumes of use pertain to the types of use (i.e., public viewers, including recreationalist and motorist) and amounts of use (e.g., number of recreational users or motorists) that various land uses receive.

Sensitive receptors or ***sensitive viewpoints*** include individuals or groups of individuals that have views of a site afforded by a scenic vista, scenic highway, residence, or public recreation area.

Visual sensitivity is the overall measure of an existing landscape's susceptibility to adverse visual changes. People in different visual settings, typically characterized by different land uses surrounding a project, have varying degrees of sensitivity to changes in visual conditions depending on the overall visual characteristics of the place. Visual sensitivity is more pronounced in areas of more distinctive visual quality, such as designated scenic highways, designated scenic roads, parks, and recreation and natural areas. In areas of less distinctive visual quality, sensitivity to change tends to be less pronounced, depending on the level of visual exposure. The analysis of visual sensitivity is based on the combined factors of visual quality, viewer types and volumes, and visual exposure to a project. Visual sensitivity is reflected according to high, moderate, and low visual sensitivity ranges.

Visual dominance is a measure of a project feature's apparent size relative to other visible landscape features in the viewshed or seen area. The visual dominance of a component is affected by its relative location in the viewshed and the distance between the viewer and that project component.

Visual screening, also referred to as view blockage or impairment, is a measure of the degree to which a project would obstruct or block views to aesthetic features due to its position 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.

Visual contrast or ***change*** 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 may be characterized 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.

3.1.2 Environmental Setting

The following description of the environmental setting is based in part on a review of the Proponent's Environmental Assessment (LSPGC 2025). The information was independently reviewed by the CPUC's consultant, Environmental Science Associates, and was found to be technically adequate.

3.1.2.1 Study Area

The study area for the analysis of potential impacts on aesthetic and scenic resources consist of publicly accessible locations, including those from major or scenic roadways, scenic vistas, parks, or lands used for recreational purposes from which Project components may be visible. The study area can be divided into three units: the proposed Skyline high-voltage direct current (HVDC) Terminal (Skyline HVDC Terminal) to Interstate 280 (I-280), I-280 to Coyote Creek Trail parking, and Coyote Creek Trail parking to the proposed Grove HVDC Terminal (Grove HVDC Terminal).

The Project is situated in downtown and southern San José, and unincorporated Santa Clara County (see Figure 2-1). The site of the proposed Skyline HVDC Terminal is located in downtown San José, immediately south of the existing PG&E San José B Substation, and surrounded by State Route (SR) 87 to the east, downtown office and commercial uses to the south, and the Guadalupe River to the west. The visual character at the site of the proposed Skyline HVDC Terminal is defined by the surrounding commercial industrial uses, riparian and woodland vegetation associated with the Guadalupe River, and downtown San José structures, including tall structures consisting of various materials, such as metal and glass. This unit is the most urban part of the Project area, encompassing segments of Bassett Street, Terraine Street, Almaden Avenue, West San Fernando Street, and South Market Street, which experience steady traffic flow and

feature many commercial, residential, and public buildings. The residential units in this area are predominantly high-density apartment buildings. The proposed Skyline HVDC Terminal is set back from the main roads in an industrial area, a short distance from the adjacent residential area.

The second unit is located in the City of San José along First Street, which transitions into Monterey Road, running northwest to southeast. This unit is a predominantly commercial corridor, surrounded by residential neighborhoods for approximately 4 miles. It then transitions into a heavily residential area for 2.5 miles. The following 2 miles mostly feature commercial lots on the southwest side of the road and residential neighborhoods on the northeast side. The remaining 1 mile of the landscape unit is surrounded by residential housing. The residential zones in this landscape are generally low-density, single-family homes, with commercial uses intermittently mixed with industrial lots.

The proposed underground Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line (Grove to Skyline 320 kV Transmission Line) would connect to the proposed Skyline HVDC Terminal and span 13 miles south, primarily through urban development and public road right-of-way, to the proposed Grove HVDC Terminal site. The proposed Grove HVDC Terminal site is located approximately 0.65-mile south of the existing PG&E Metcalf Substation within Coyote Valley. Land uses in the proposed Grove HVDC Terminal site's vicinity consist of agricultural uses; vacant land; utility, residential, and commercial uses; open space, park, and recreation uses; and Coyote Creek. The visual character of the proposed Grove HVDC Terminal site is defined by its surrounding agricultural uses, which consist of an existing orchard surrounded by grasses, ornamental trees and bushes, and small residential and agricultural support structures, with the Diablo Mountain Range as a backdrop. This third unit runs along Monterey Road through the outskirts of the City of San José and briefly through the community of Coyote in unincorporated Santa Clara County. It traverses open fields, low rolling hills, and lightly wooded creek beds. It also passes several industrial developments, including the existing PG&E Metcalf Substation. The southernmost part of the unit traverses along agricultural fields and residential lots, with houses set back several hundred feet from the road.

3.1.2.2 Parks and Open Spaces

The Project crosses or is adjacent to numerous open spaces and parks listed in **Table 3.1-1**, *Scenic Resources*. These areas provide a range of recreational opportunities and scenic values. Additional information on the recreational facilities within the Project study area is provided in Section 3.16, *Recreation*.

3.1.2.3 Scenic Vistas

For the purposes of this analysis, scenic vistas are defined as distant public views from designated viewing locations along or through an opening or corridor that is recognized and valued for its scenic quality. No specific designated scenic vistas have been identified in the study area by the City of San José or Santa Clara County general plans (City of San José 2024; Santa Clara County 1994).

3.1.2.4 Scenic Resources

Scenic resources generally can include scenic highways, national scenic areas, or other resources that contribute to the scenic values of an area. Planning documents prepared by local agencies

often identify scenic resources within the agency's jurisdiction, and the California Department of Transportation (Caltrans) identifies state and national scenic highways. For the Project, the City of San José General Plan (2024), the Santa Clara County General Plan (1994), and the California State Scenic Highway System (Caltrans 2018), were reviewed for designated or eligible scenic resources within 5 miles of the Project area. The identified scenic resources within 5 miles of the Project are listed in Table 3.1-1.

TABLE 3.1-1
SCENIC RESOURCES

Scenic Resource	Description
Sierra Road	City of San José-designated rural scenic corridor
Penitencia Creek Road	City of San José-designated rural scenic corridor
Yerba Buena Road	City of San José-designated rural scenic corridor
Silver Creek Valley Road	City of San José-designated rural scenic corridor
Farnsworth Drive	City of San José-designated rural scenic corridor
Silver Creek Road	City of San José-designated rural scenic corridor and Santa Clara County Scenic Route
Metcalf Road	City of San José-designated rural scenic corridor and Santa Clara County Scenic Route
Bailey Road	City of San José-designated rural scenic corridor
McKean Road	City of San José-designated rural scenic corridor and Santa Clara County scenic route
Almaden Road	City of San José-designated rural scenic corridor and Santa Clara County scenic route
U.S. Highway 101	City of San José-designated rural scenic corridor and urban corridor Santa Clara County scenic route
I-880	City of San José-designated urban corridor
SR 87	City of San José-designated urban corridor
I-680	City of San José-designated urban corridor
I-280	City of San José-designated urban corridor and Caltrans eligible state scenic highway
SR 85	City of San José-designated urban corridor
SR 17	City of San José-designated urban corridor
Santa Clara Valley	City of San José-designated scenic resource
City of San José Urban Skyline	City of San José-designated scenic resource
Coyote Creek Trail	City of San José trail
Guadalupe River Trail	City of San José trail
Montague Expressway at I-880	City of San José gateway
Charcot Avenue at I-880	City of San José gateway
Charcot Avenue at Orchard Parkway	City of San José gateway
North First Street at Charcot Avenue	City of San José gateway
North First Street at I-880	City of San José gateway
Berryessa Road at I-680	City of San José gateway
Skyport Drive at SR 87	City of San José gateway
Oakland Road at U.S. Highway 101	City of San José gateway
Coleman Avenue at I-880	City of San José gateway

TABLE 3.1-1
SCENIC RESOURCES

Scenic Resource	Description
The Alameda at I-880	City of San José gateway
Alum Rock Ave and East Santa Clara Street at U.S. Highway 101	City of San José gateway
San Antonio Street at I-680	City of San José gateway
Bird Ave at I-280	City of San José gateway
Stevens Creek Boulevard at SR 17	City of San José gateway
First Ave at I-280	City of San José gateway
Almaden Expressway at SR 87	City of San José gateway
East Capitol Expressway at U.S. Highway 101	City of San José gateway
Tully Road at U.S. Highway 101	City of San José gateway
Blossom Hill Road at I-85	City of San José gateway
Metcalf Road at Monterey Road	City of San José gateway
Monterey Road at Metcalf Road	City of San José gateway
South White Road	Santa Clara County scenic route
San Felipe Road	Santa Clara County scenic route
Almaden Expressway	Santa Clara County scenic route
Santa Teresa Boulevard	Santa Clara County scenic route
Hale Ave	Santa Clara County scenic route
Bailey Avenue	Santa Clara County scenic route

NOTES: I- = Interstate; SR = State Route
SOURCE: Caltrans 2018; City of San José 2016; City of San José 2024; Santa Clara County 1994; Santa Clara County 2008.

3.1.3 Viewers and Viewer Sensitivity

The primary potentially affected viewer groups within the study area are motorists and recreationists, along with residents located within viewing distance of the Project.

3.1.3.1 Motorists

Motorists form the largest viewer group, comprising both local and regional travelers familiar with the visual setting, as well as those who use the roads less frequently. Motorists traveling on U.S. Highway 101 (U.S. 101) are within the foreground and middleground viewshed of the Project. Motorists on SR 87, I-280, East Capitol Expressway, and SR 85 are within the foreground viewshed of the Project. Motorists traveling on these roadways would experience views while traveling at highways speeds (i.e., at least 55 miles per hour), resulting in a low-to-moderate sensitivity rating.[1] Viewer sensitivity for motorists ranges from low when views are brief and at high speeds, to moderate when views are longer or at lower speeds.

[1] Per California Vehicle Code Section 22349, the maximum speed limit on a multilane highway and two-lane undivided roadway is 65 miles per hour and 55 miles per hour, respectively (Caltrans 2025).

3.1.3.2 Recreationists

Recreationists frequent parks and trails in the study area. Recreationists' views of the Project components range from relatively brief to lengthy, depending on mode and speed of travel, terrain conditions, weather conditions, and other factors. The sensitivity of this viewer group is considered moderate to high given the potential for extended-duration views. Additional information on the recreational facilities within the Project study area is provided in Section 3.16.

3.1.3.3 Residents

Residential neighborhoods near the Project site are in the City of San José and unincorporated Santa Clara County. Within the City of San José, one of the primary land uses surrounding the Project site is residential. Depending on the proximity to the Project, residential viewers tend to have high viewer exposure and awareness from publicly accessible viewing points (e.g., public roadways and sidewalks, neighborhood parks) within their neighborhoods; therefore, the sensitivity of this viewer group is considered high.

3.1.4 Light and Glare

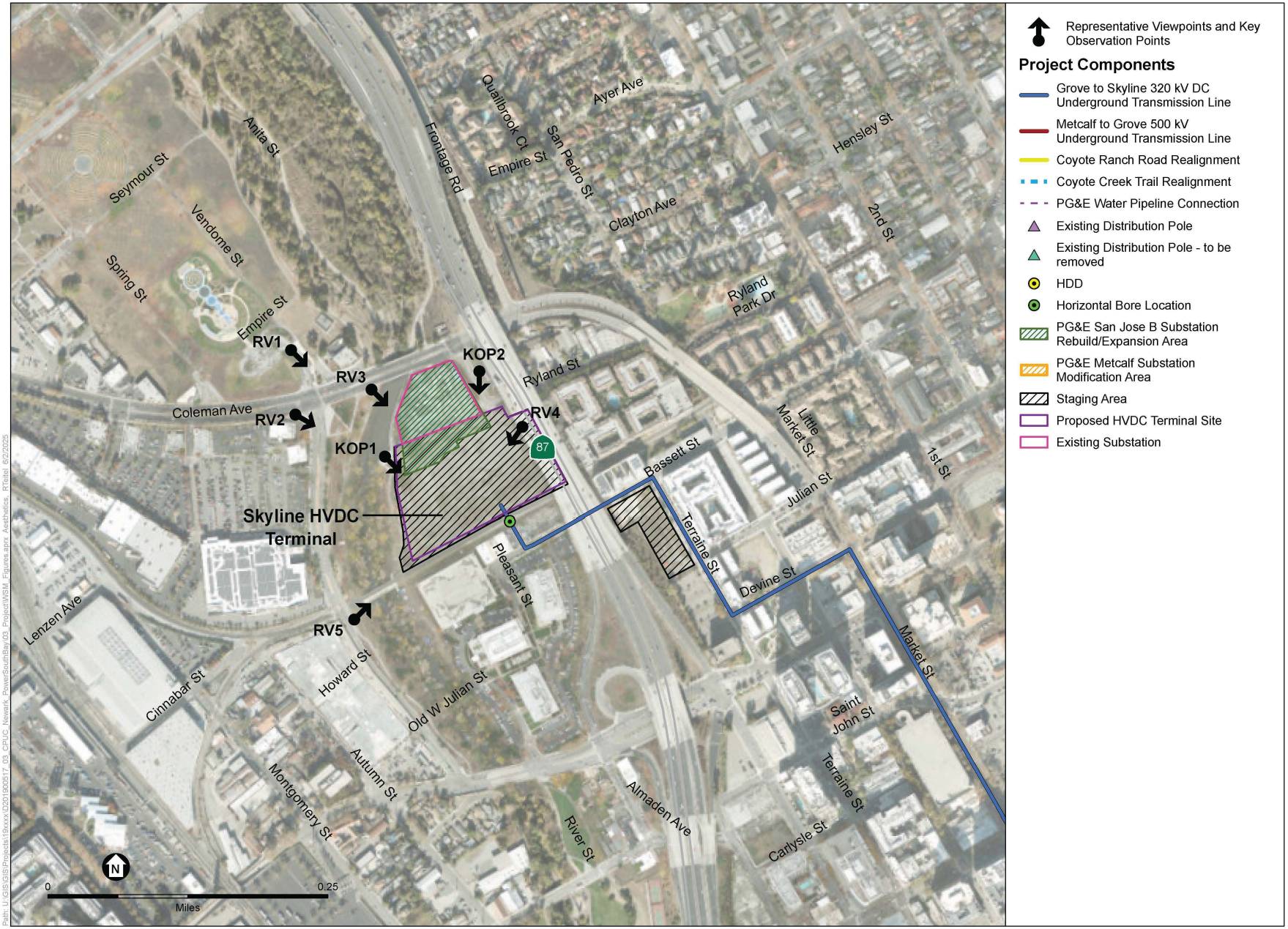
Existing sources of light and glare within the study area include nighttime highway traffic along SR 87, I-280, SR 85, U.S. 101, and other roadways, as well as localized lighting from residential, commercial, and industrial development in the city of San José and unincorporated Santa Clara County. Another source of light and glare within the study area is from the existing PG&E San José B and PG&E Metcalf substations, which consist of interior and exterior lighting from buildings and structures for safety and security purposes.

3.1.5 Representative Viewpoints

A total of 11 representative viewpoints were selected at key locations throughout the Project area. These viewpoints represent a range of views of the Project area from major roads, trails, recreational areas, and other scenic resources. **Figures 3.1-1** and **3.1-2** illustrate the locations of these viewpoints near the proposed Skyline and Grove HVDC Terminals. High-resolution photographs were taken at each of the 11 representative viewpoints and are included in **Figures 3.1-3A** through **3.1-3K**. The study area from I-280 to Coyote Creek Trail parking does not have any representative photographs because the proposed transmission line would be underground in this area, resulting in no visible changes upon Project completion.

In addition to the 11 representative viewpoints, 4 additional locations were selected as key observation points (KOPs). These KOPs were selected based on the following criteria:

- The location is a designated scenic resource, trail, park, or major road.
- A view of the Project would be visible.
- Viewers at this location may be particularly sensitive to visual changes.

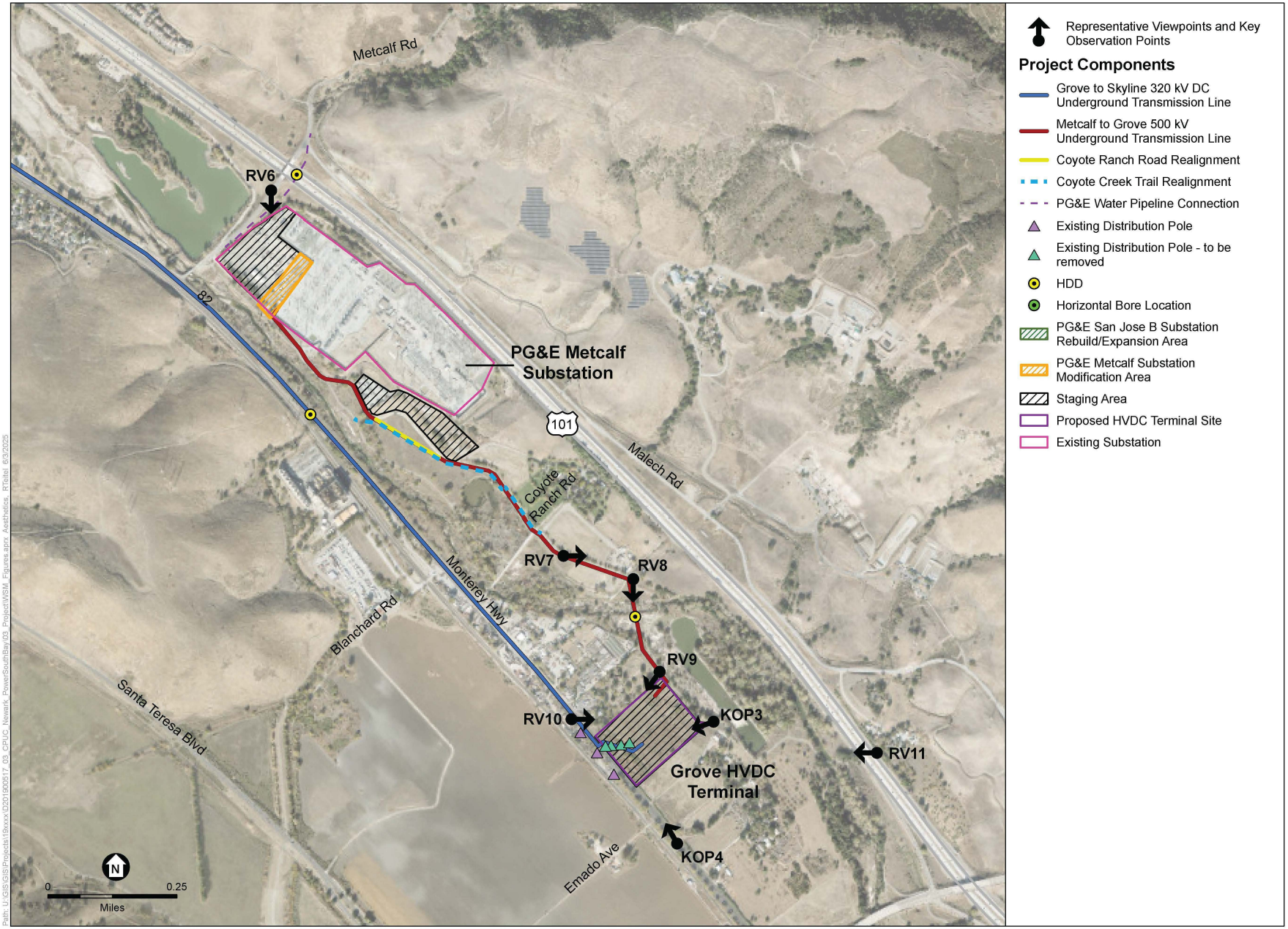


SOURCE: ESA, 2025

Power Santa Clara Valley Project

Figure 3.1-1
Location of Representative Viewpoints and Key Observation Points near the Skyline Terminal

ESA



SOURCE: ESA, 2025

Power Santa Clara Valley Project

Figure 3.1-2
Location of Representative Viewpoints and Key Observation Points near the Grove Terminal

ESA

The location of each KOP is identified in Figure 3.1-1 and Figure 3.1-2, and the photographs and visual simulations are presented in **Figures 3.1-4** through **3.1-7**.

Table 3.1-2, *Summary of Representative Viewpoints and KOPs*, provides details on the types of viewers, viewing direction, distance to the nearest Project feature, and the capture time and date of each photograph. The text below describes the existing visual conditions and visibility of the Project area as seen from these viewpoints and shown in the representative photographs.

TABLE 3.1-2
SUMMARY OF REPRESENTATIVE VIEWPOINTS AND KOPS

Viewpoint	Figure	Potentially Affected Viewer Type	Viewing Direction and Distance (to nearest Project Feature)
Viewpoint 1	Figure 3.1-3A	Residents, drivers	Southeast – Approximately 560 ft northwest of the PG&E San José B Substation upgrades
Viewpoint 2	Figure 3.1-3B	Residents, drivers	East – Approximately 46 ft northwest of the PG&E San José B Substation upgrades
Viewpoint 3	Figure 3.1-3C	Drivers, recreationists on trail	Southeast – Approximately 145 ft northwest of the PG&E San José B Substation upgrades
Viewpoint 4	Figure 3.1-3D	Drivers	Southwest – Approximately 20 ft east of the Skyline HVDC terminal
Viewpoint 5	Figure 3.1-3E	Residents, drivers	Northeast – Approximately 370 ft southwest of Skyline HVDC terminal
Viewpoint 6	Figure 3.1-3F	Drivers	South – Approximately 180 ft north of Staging Yard 3
Viewpoint 7	Figure 3.1-3G	Residents, drivers	East – Approximately 385 ft southeast of the Metcalf to Grove 500 kV AC underground transmission line
Viewpoint 8	Figure 3.1-3H	Residents, drivers	South – Approximately 1,120 ft north of the Metcalf to Grove 500 kV AC underground transmission line
Viewpoint 9	Figure 3.1-3I	Recreationists on trail	Southwest – Approximately 50 ft north of the Grove HVDC terminal
Viewpoint 10	Figure 3.1-3J	Drivers	East – Approximately 40 ft west of the Grove HVDC terminal
Viewpoint 11	Figure 3.1-3K	Drivers	West – Approximately 1,750 ft east of the Grove HVDC terminal
KOP 1	Figure 3.1-4	Recreationists on trail	Southeast – Approximately 45 ft northwest of the Skyline HVDC terminal
KOP 2	Figure 3.1-5	Residents, drivers	South – Approximately 77 ft north of the PG&E San José B Substation upgrades
KOP 3	Figure 3.1-6	Recreationists on trail	West – Approximately 55 ft east of the Grove HVDC terminal
KOP 4	Figure 3.1-7	Drivers	North – Approximately 360 ft southwest of the Grove HVDC terminal

NOTE: ft = feet

SOURCE: Data compiled by Environmental Science Associates in 2025.

Figure 3.1-3A, *Representative Viewpoint 1*, shows a view from the parking lot of Guadalupe River Park looking southeast to the proposed Skyline HVDC Terminal from either a motorist's or recreationist's perspective. The foreground shows the roadway and parking lot in Guadalupe River Park. The middleground shows trees and parts of the existing PG&E San José B Substation. The middleground of the photo also shows glimpses of the downtown San José skyline. The background views are not visible from this viewpoint due to intervening development. The visual character from this viewing location is a mix of parkland, urban, and industrial visual elements.

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SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-3A
Representative Viewpoint 1 - Looking Southeast

ESA

Figure 3.1-3B, *Representative Viewpoint* 2, shows a view from the intersection of Coleman Avenue and Autumn Parkway looking east toward the proposed Skyline HVDC Terminal from either a pedestrian's or motorist's point of view. The foreground shows a sidewalk and Autumn Parkway. The middleground shows trees growing along the Guadalupe River. Portions of downtown San José are visible in the middleground. The visual character from this viewing location is a mix of urban and industrial visual elements.

Figure 3.1-3C, *Representative Viewpoint 3*, shows a view looking southeast on the Guadalupe River Trail toward the existing PG&E San José B Substation and the proposed Skyline HVDC Terminal from a pedestrian's perspective. The Guadalupe River Trail, existing PG&E San José B Substation, and the lot for the proposed Skyline HVDC Terminal is visible in the foreground. Several buildings of the downtown San José skyline are also visible beyond the substation in the middleground. The visual character from this viewing location is heavily urban and industrial.

Figure 3.1-3D, *Representative Viewpoint 4*, shows a view from SR 87 looking southwest toward the proposed Skyline HVDC Terminal from a motorist's point of view. The foreground shows the shoulder of SR 87. The middleground shows the empty lot for the proposed Skyline HVDC Terminal, a portion of the existing PG&E San José B Substation, and a parking structure. Portions of Guadalupe River Park and Trail, and commercial development area are visible in the middleground. The visual character from this viewing location is heavily urban and industrial.

Figure 3.1-3E, *Representative Viewpoint 5*, shows a view from Autumn Parkway and Guadalupe River Trail west looking northeast from a motorist's or pedestrian's perspective. The foreground shows empty land alongside Autumn Parkway, a rail transit bridge, and an elevated portion of the SR 87 freeway. No middleground views are available from this viewing location due to intervening development. The Diablo Mountain Range is in the background view. The visual character from this viewing location is urban and industrial.

Figure 3.1-3F, *Representative Viewpoint 6*, shows a view from Metcalf Road west of its U.S. 101 overpass looking south toward the existing PG&E Metcalf Substation and Staging Area 3 site from a motorist's point of view. Metcalf Road, roadside trees, and the existing PG&E Metcalf Substation are visible in the foreground. The middleground shows large structures at the Metcalf Energy Center and the hills in the foothills of the Santa Cruz Mountain Range. The visual character from this viewing location is urban and industrial.

Figure 3.1-3G, *Representative Viewpoint 7*, shows a view from Coyote Ranch Road looking east toward Coyote Creek Parkway from a motorist's and recreationist's perspective. The foreground shows Coyote Ranch Road, Coyote Creek Trail, and trees growing alongside the trail. The middleground shows Coyote Creek Parkway and many trees, while the background shows the Diablo Mountain Range. The visual character of this view is representative of a park setting.

Figure 3.1-3H, *Representative Viewpoint 8*, shows a view looking south from Coyote Ranch Road and Coyote Creek Trail toward the proposed Grove HVDC Terminal site from a pedestrian's or motorist's perspective. The foreground shows the Coyote Creek Trail and the Coyote Creek Parkway. A tree line blocks the proposed Grove HVDC Terminal site and the background view. The visual character of this view is representative of an urban park setting.

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SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-3B
Representative Viewpoint 2 - Looking East

ESA

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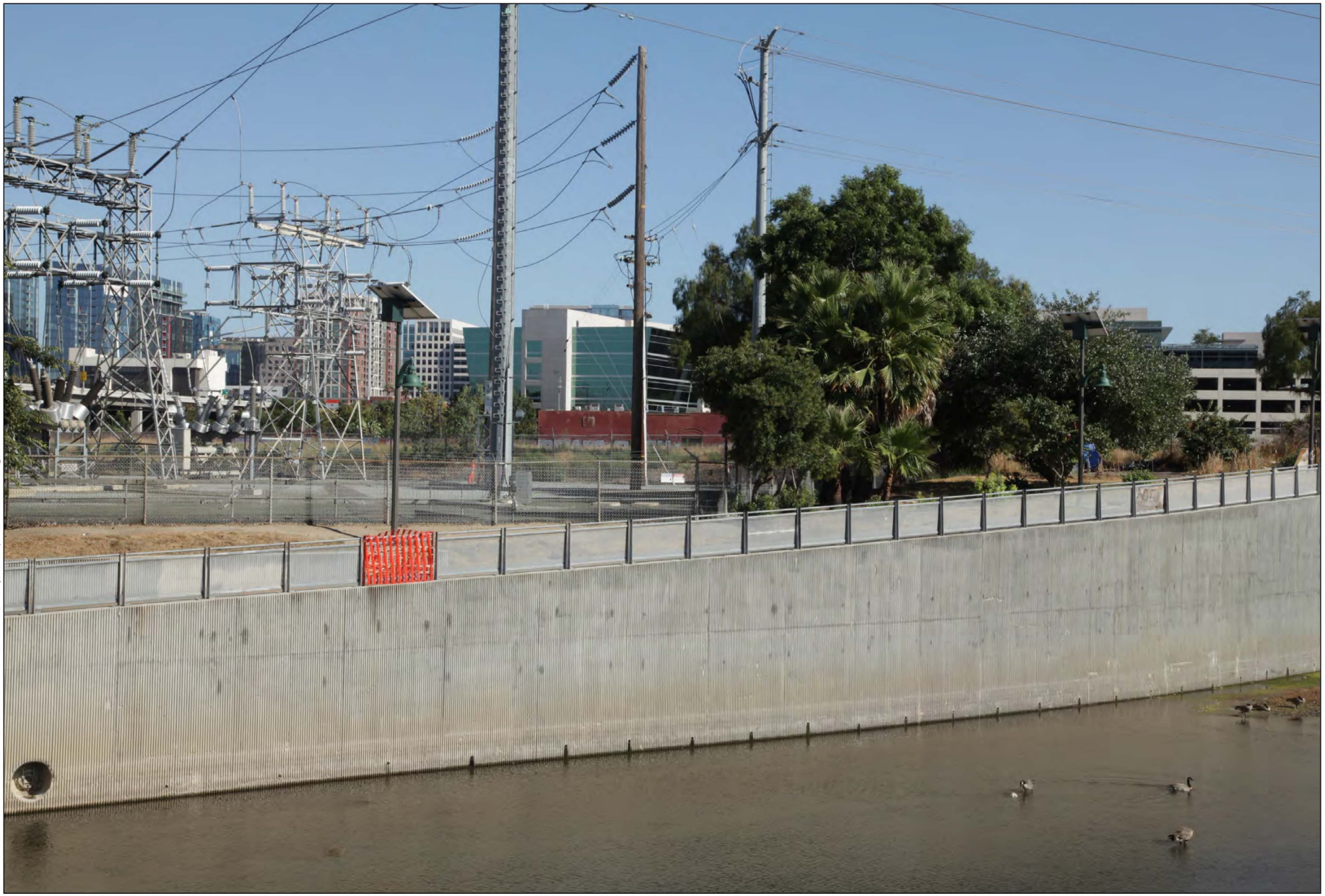
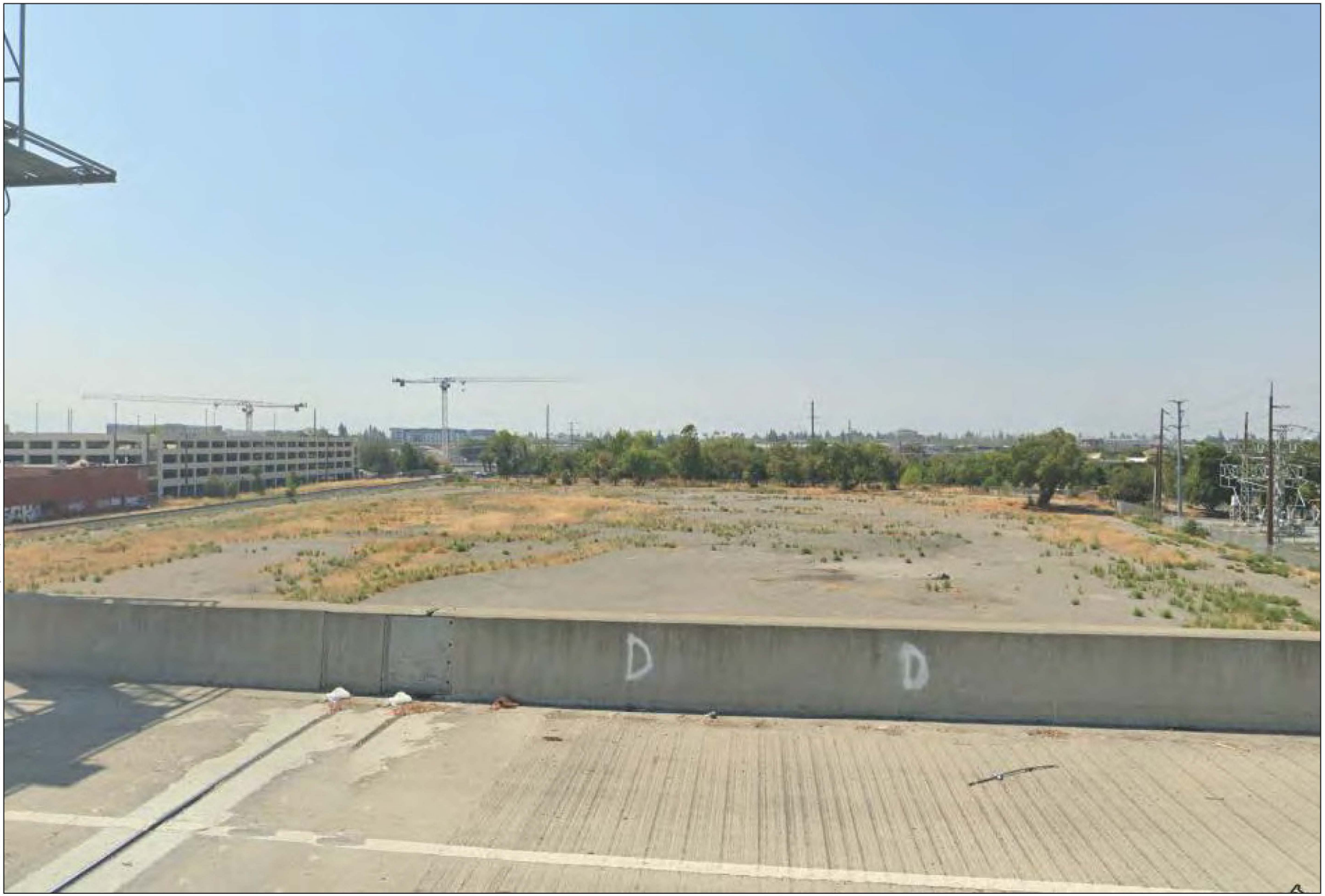


SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-3C
Representative Viewpoint 3 - Looking Southeast

ESA



SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-3D
Representative Viewpoint 4 - Looking Southwest

ESA

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2019/D2019005517.04 - D2019005517.04 - CPUC Power Santa Clara Valley/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-3E
Representative Viewpoint 5 - Looking Northeast

ESA

SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-3F
Representative Viewpoint 6 - Looking South

ESA

2019/D2019005517.04 - D2019005517.04 - CPUC Power Santa Clara Valley/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

2019/D2019005517.04 - D2019005517.04 - CPUC Power Santa Clara Valley/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-3G
Representative Viewpoint 7 - Looking East

SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-3H
Representative Viewpoint 8 - Looking South

ESA

2019/D2019005517.04 - D2019005517.04 - CPUC Power Santa Clara Valley/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

Figure 3.1-3I, *Representative Viewpoint 9*, shows a view from Coyote Creek Trail looking southwest toward the proposed Grove HVDC Terminal site from the point of view of a recreationist on the trail. In the foreground, the grass growing along the trail and the fence bordering the proposed Grove HVDC Terminal site are visible. The foreground also shows the trees in and past the proposed Grove HVDC Terminal site. The Santa Cruz Mountains are visible in the middleground. The visual character in this view is naturalistic open space.

Figure 3.1-3J, *Representative Viewpoint* 10, shows a view from Monterey Road from a motorist's perspective looking east toward the proposed Grove HVDC Terminal site. The foreground shows Monterey Road and the traffic barrier. There are trees and an aboveground power line that sit alongside Monterey Road. The Diablo Mountains are barely visible in the middleground. The visual character from this viewing location is urban and industrial.

Figure 3.1-3K, *Representative Viewpoint 11*, shows a view from U.S. 101 looking west from a motorist's point of view toward the proposed Grove HVDC Terminal site. In the foreground, U.S. 101 and trees on the west side of the highway dominate the view. Middleground and background views are blocked by the intervening vegetation. The visual character from this viewing location is urban.

Figure 3.1-4, *Existing View and Visual Simulation from KOP 1*, shows a view from Guadalupe River Trail looking southeast adjacent to, and toward, the proposed Skyline HVDC Terminal from a pedestrian's perspective. The foreground shows the trail, the empty lot proposed for the proposed Skyline HVDC Terminal, and the fence that separates them. Also visible in the foreground is SR 87 and a highway overpass. The middleground includes views of the San José skyline, which blocks any background views. Although not the focus of KOP 1, the key scenic features of Guadalupe River Park and Trail include the winding trails that act as a recreational pathway through the city, the natural vegetation amidst the surrounding urban landscape, and the river itself. The visual character from this viewing location is industrial and urban.

Figure 3.1-5, *Existing View and Visual Simulation from KOP 2*, shows a view looking south on Santa Teresa Street from a motorist's or pedestrian's point of view. This KOP is also somewhat representative of motorists' views toward the proposed Skyline HVDC Terminal site from southbound SR 87. In the foreground, Santa Teresa Street, the sidewalk, trees growing alongside the street, and parts of the existing PG&E San José B Substation are visible. The foreground shows the empty lot proposed for the proposed Skyline HVDC Terminal. A highway overpass and buildings of downtown San José can be seen in the middleground view. The visual character of the existing view is vacant industrial with an urban setting beyond.

Figure 3.1-6, *Existing View and Visual Simulation from KOP 3*, shows a view from Coyote Creek Trail looking west at the proposed Grove HVDC Terminal site from a recreationist's or pedestrian's point of view. In the foreground, the trail, trailside trees, a fence, and the lot proposed for the proposed Grove HVDC Terminal are visible. The middleground shows the foothills of the Santa Cruz Mountains. Background views are blocked by the intervening vegetation and topography. The visual character at this viewpoint is naturalistic and open space.

SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-3l
Representative Viewpoint 9 - Looking Southwest

ESA

2019/D2019005517.04 - D2019005517.04 - CPUC Power Santa Clara Valley/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-3J
Representative Viewpoint 10 - Looking East

ESA

2019/D2019005517.04 - D2019005517.04 - CPUC Power Santa Clara Valley/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: LS Power Grid California LLC, 2024

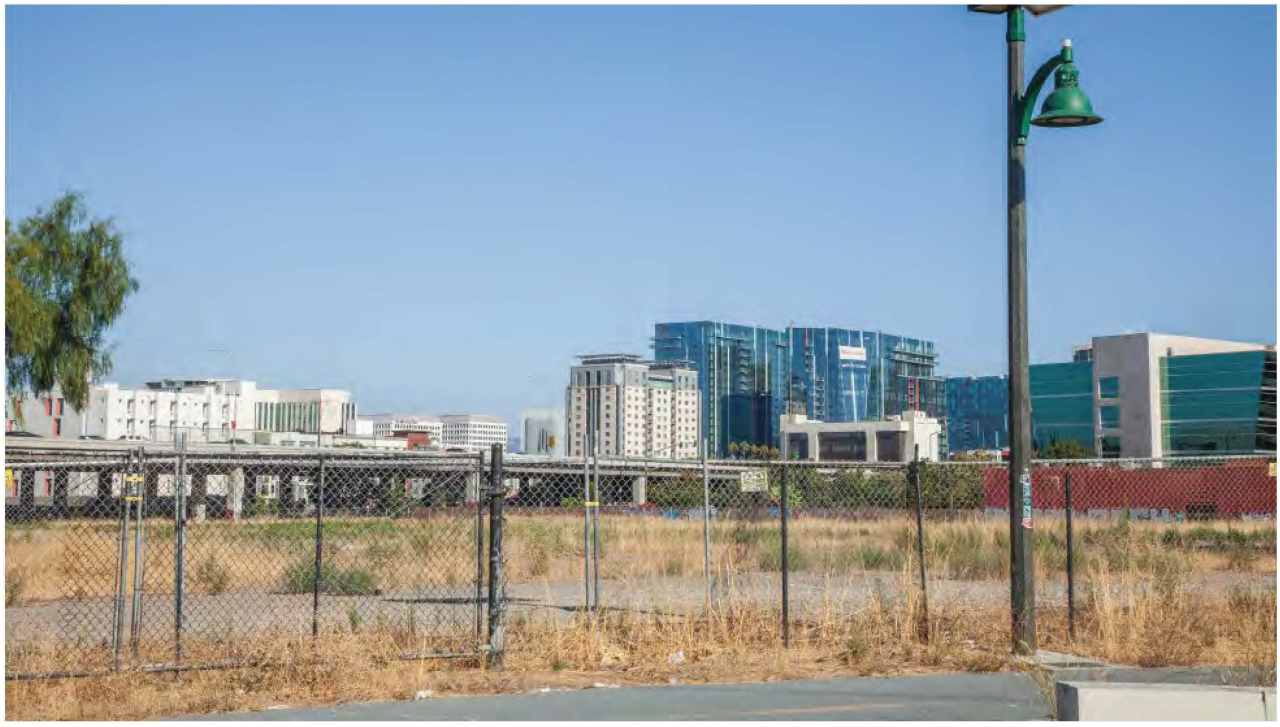
Power Santa Clara Valley Project

Figure 3.1-3K
Representative Viewpoint 10 - Looking West

ESA

2019/D2019005517.04 - D2019005517.04 - CPUC Power Santa Clara Valley/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

A – Existing View



B – Visual Simulation

2019/D2019000517.04 - D2019000517.04 - CPUC Power Santa Clara Valley/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

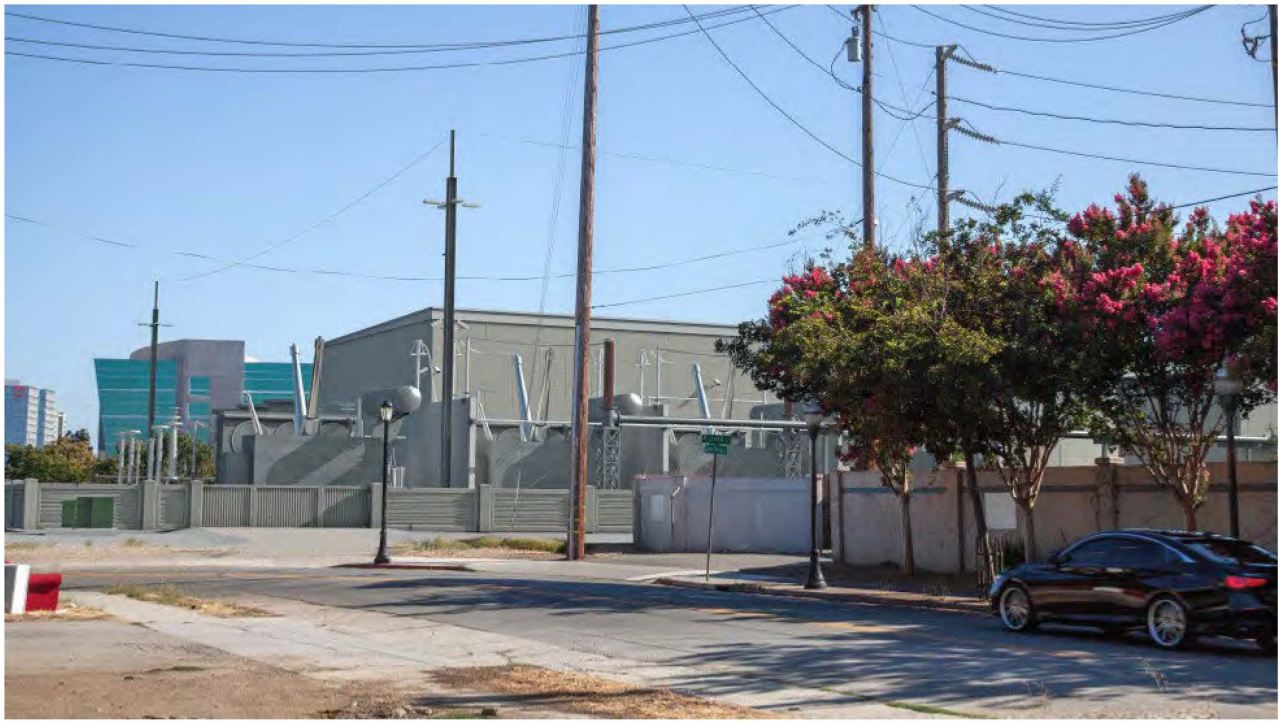
SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-4
Existing View and Visual Simulation from KOP 1

A – Existing View

B – Visual Simulation



2019/D2019000517.04 - D2019000517.04 - CPUC Power Santa Clara Valley/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-5
Existing View and Visual Simulation from KOP 2

A – Existing View

B – Visual Simulation

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SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-6
Existing View and Visual Simulation from KOP 3

Figure 3.1-7, *Existing View and Visual Simulation from KOP 4*, shows a view from Monterey Road looking north toward the proposed Grove HVDC Terminal site from a motorist's perspective. The foreground view includes Monterey Road, grasses and other vegetation, and utility poles supporting communication lines on the east side of the road. The foreground shows an empty grass-covered lot and trees in and around the proposed Grove HVDC Terminal site and Coyote Creek Parkway. The middleground view is defined by a row of trees in the center of the view. The foothills of the Diablo Mountain Range are also visible in the middleground. The visual character from this viewing location is urban.

3.1.6 Regulatory Setting

3.1.6.1 Federal

No federal regulations for aesthetics apply to the Project.

3.1.6.2 State

California Department of Transportation State Scenic Highway Program

California's Scenic Highway Program was established by the state Legislature in 1963 to preserve and protect scenic highway corridors from changes that would diminish the aesthetic quality of lands adjacent to highways. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway shifts from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives the designation. Although local jurisdictions may propose adding routes with outstanding scenic elements to the list of eligible highways, state legislation is required for them to become officially designated. As noted in Table 3.1-1, within the study area portions of I-280 west of I-880, is an eligible state scenic highway (Caltrans 2018). No officially designated state scenic highways are within 5 miles of the Project.

3.1.6.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to aesthetics that would otherwise be relevant to the Project and alternatives are described below.

Santa Clara County General Plan

The Santa Clara County General Plan (Santa Clara County 1994) includes the following policies related to aesthetics and visual resources that are relevant to the Project:

> ***Policy C-GD 17*:** Planning for Coyote Valley's future development should provide for the following in the area of resource conservation:
>
> a. permanent preservation of hillsides in open space;

A – Existing View

B – Visual Simulation

2019/D2019005517.04 - D2019005517.04 - CPUC Power Santa Clara Valley/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: LS Power Grid California LLC, 2024

Power Santa Clara Valley Project

Figure 3.1-7
Existing View and Visual Simulation from KOP 4

b. retention of a greenbelt of non-urban uses and densities between San José and Morgan Hill; and

c. protection of a scenic corridor adjacent to Highway 101.

***Policy C-PR 34*:** Local and state roads and highways transversing Santa Clara County's scenic rural and urban areas should be designated and protected as local or state scenic highways.

***Policy C-PR 38*:** Land use should be controlled along scenic roads so as to relate to the location and functions of these roads and should be subject to design review and conditions to assure the scenic quality of the corridor.

***Policy C-PR 39*:** The visual integrity of the scenic gateways to the South County (Pacheco Pass, Hecker Pass, Route 101 south of Gilroy, and Coyote greenbelt area north of Morgan Hill) should be protected.

***Policy C-PR 43*:** New structures should be located where they will not have a negative impact on the scenic quality of the area, and in rural areas they should generally be set back at least 100 feet from scenic roads and highways to minimize their visual impact.

***Policy C-PR 45*:** Activities along scenic highways that are of a substantially unsightly nature, such as equipment storage or maintenance, fuel tanks, reuse storage or processing and service yards, should be screened from view.

***Policy C-RC 57*:** The scenic and aesthetic qualities of both the natural and built environments should be preserved and enhanced for their importance to the overall quality of life for Santa Clara County.

Policy C-PR 58: The general approach to scenic resource preservation on a countywide basis should include the following strategies:

a. Conserving scenic natural resources through long range inter-jurisdictional growth management and open space planning;

b. Minimize development impacts on highly significant scenic resources; and

c. Maintaining and enhancing scenic urban settings, such as parks and open space, civic places, and major public commons areas.

***Policy C-PR 60*:** Hillsides, ridgelines, scenic transportation corridors, major county entryways, and other areas designated as being of special scenic significance should receive additional consideration and protections due to their prominence, visibility, or symbolic value.

***Policy C-RC 61*:** Public and private development and infrastructure located in areas of special scenic significance should not create major, lasting adverse visual impacts.

City of San José General Plan

The *Envision San José General Plan* (City of San José 2024) includes the following goals and policies related to aesthetics and visual resources that are relevant to the Project:

Policy IN-1.9: Design new public and private utility facilities to be safe, aesthetically pleasing, compatible with adjacent uses, and consistent with the Envision General Plan

goals and policies for fiscal sustainability, environmental leadership of an innovative economy, and quality neighborhoods.

***Policy CD-5.5*:** Include design elements during the development review process that address security, aesthetics and safety. Safety issues include but are not limited to minimum clearances around buildings, fire protection measures such as peak load water requirements, construction techniques, and minimum standards for vehicular and pedestrian facilities and other standards set forth in local, state, and federal regulations.

Goal CD-9: Access to Scenic Resources. Preserve and enhance the visual access to scenic resources of San José and its environs through a system of scenic routes.

Goal CD-9.1: Ensure that development within the designated Rural Scenic Corridors is designed to preserve and enhance attractive natural and man-made vistas.

Goal CD-9.3: Ensure that development within the designated Rural Scenic Corridors preserves significant views of the Valley and mountains, especially in, or adjacent to, Coyote Valley, the Diablo Range, the Silver Creek Hills, the Santa Teresa Ridge and the Santa Cruz Mountains.

Goal CD-10: Attractive Gateways. Create and maintain attractive Gateways into San José and attractive major roads through San José, including freeways and Grand Boulevards, to contribute towards the positive image of the City.

Policy CD-10.2: Require that new public and private development adjacent to Gateways, freeways (including U.S. 101, I-880, I-680, I-280, SR 17, SR 85, SR 237, and SR 87), and Grand Boulevards consist of high-quality materials and contribute to a positive image of San José.

Policy CD-10.3: Require that development visible from freeways (including U.S. 101, I-880, I-680, I-280, SR 17, SR 237, and SR 87) be designed to preserve and enhance attractive natural and man-made vistas.

City of San José Zoning Ordinance

Ordinances from the City of San José zoning code related to aesthetics, specifically concerning lighting in Chapter 20.55.103, include the following (City of San José 2025):

20.55.103 – Lighting

The purpose and intent of these regulations is to ensure that adequate and appropriate lighting is provided for developments located in the UV, MUC, MUN, UR, and TR districts.

A. All lighting or illumination shall conform to any lighting policy adopted by the City Council.

B. Any and all lighting facilities hereafter erected, constructed, or used in connection with any use conducted on any property adjacent to a site or lot used for residential purposes shall conform to the Citywide Design Standards and Guidelines for Site Lighting.

C. Any lighting located adjacent to riparian areas shall be directed downward and away from riparian areas.

D. Lighting adjacent to residential properties. Any and all lighting facilities hereafter erected, constructed, or used in connection with any use conducted on any property situate adjacent to a site or lot used for residential purposes shall be arranged and

shielded that all light will be reflected away from any residential use so that there will be no glare which will cause unreasonable annoyance to occupants of such property, or otherwise interfere with the public health, safety, or welfare.

3.1.7 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility will be responsible for implementing its measures only to that part of the Project for which it will own or be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San José B Substation to a splice vault located at the existing PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San José B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San José B and PG&E Metcalf substations. At the PG&E San José B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San José B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.1.7.1 Applicant-Proposed Measures

LSPGC has developed Applicant-proposed measures (APMs) that are incorporated into LSPGC's components of the Project to reduce potential effects on aesthetics. The following impact analysis assumes that LSPGC would implement the following APMs as part of its portion of work for the Project.

- **APM AES-1: Maintenance of Construction Areas.** All Project construction sites shall be maintained in a clean and orderly state. Temporary construction and permanent security nighttime lighting shall be directed away from residential areas and have shields to prevent light spillover effects. Upon completion of Project construction, Project staging and temporary work areas shall be returned to pre-Project conditions, including re-grading of the site and re-vegetation or re-paving of disturbed areas to match pre-existing contours and conditions.
- **APM AES-2: Site Design and Landscape Management Plan.** A Site Design and Landscape Management Plan shall be developed for the Skyline and Grove terminals and could include, but not be limited to, the following requirements:
  - Structures and equipment at the proposed HVDC terminals shall have a non-reflective finish and a beige, grayish hue, or neutral earth-tone colors to the extent practicable.

- Existing vegetation along the proposed Grove terminal western site boundary shall remain and be maintained unless safety and security would be compromised.
- Consideration of local guidance documents, where applicable, such as the City of San José Guadalupe River Park & Gardens Urban Design Guidelines (2003), unless safety and security would be compromised, or if it would interfere with the future operations and maintenance of the facility.

3.1.7.2 PG&E Best Management Practices and Field Protocols

PG&E has not proposed any best management practices or field protocols pertaining to aesthetics within its portion of work for the Project.

3.1.8 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in significant aesthetic impacts if it would do any of the following:

a) Have a substantial adverse effect on a scenic vista;

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage points). If the Project is in an urbanized area, whether the Project would conflict with applicable zoning and other regulations governing scenic quality; or

d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

3.1.9 Direct and Indirect Effects

3.1.9.1 Approach to Analysis

This analysis evaluates impacts on aesthetics and visual resources from publicly accessible vantage points within view of the Project's implementation. Data for this section was generated by reviewing websites (referenced and incorporated throughout this section), planning and policy documents, and maps of counties and cities within the study area; and by using Google Earth.

California State Scenic Highway System maps were consulted to determine whether any of the Project components would be visible from state scenic highways (e.g., I-280) traversing or within view of the study area. Additionally, the general plans and zoning ordinances of study area jurisdictions were consulted to identify locally designated scenic roadways for evaluating visual quality and character impacts within the study area.

U.S. Census Bureau Urban Area maps were reviewed to determine which Project components would be located in urbanized areas, as defined in CEQA Guidelines Section 15387. The results of this review indicate that the Project components are entirely within the San José Urbanized Area. Therefore, consistent with the CEQA Guidelines Appendix G Checklist and criterion c), this analysis evaluates the Project's impacts on visual character and quality based on the Project's

potential to conflict with applicable zoning and other regulations governing scenic quality. The regulations applicable to the Project study area are presented in Section 3.1.6, *Regulatory Setting*, and are applied under Impact 3.1-3.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San José B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.1.9.2 Direct and Indirect Effects of the Project

Criterion a) Whether the Project would have a substantial adverse effect on a scenic vista.

As noted in Table 3.1-1, there are no designated scenic vistas within 5 miles of the Project area. There would be no impact under this criterion. (*No Impact*)

Criterion b) Whether the Project would substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

As noted in Section 3.1.6, portions of I-280, west of I-880, are an eligible state scenic highway (Caltrans 2018). However, Caltrans has not officially designated any state scenic highway or highway segments within 5 miles of the Project. Therefore, no impact would occur under this criterion. (*No Impact*)

Criterion c) Whether the Project would substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality.

Impact 3.1-1: The Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality in the area. (*Less than Significant*)

As described in Section 2.6, *Project Components*, in Chapter 2, *Project Description*, the Project includes two new underground transmission lines (the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV Transmission Line), one overhead transmission tie line (the proposed Skyline to San José B 230 kV Transmission Tie Line), modifications at the existing PG&E Metcalf Substation, expansion and modifications at the existing PG&E San José B Substation, and construction and operation of two new HVDC terminals (proposed Grove and Skyline HVDC Terminals).

Table 3.1-1 above lists the identified scenic resources within 5 miles of the Project. Most of the scenic resources include streets and highways designated as rural scenic corridors, urban corridors, gateways, Santa Clara County scenic routes, and Caltrans eligible state scenic

highways (Caltrans Scenic Highways are addressed under criterion b)). Motorists would be the viewer group most affected by visual changes observed from these roads and highways. Other viewer groups that would be affected include recreationists and residents near the Project components. Residents would be sensitive to visual changes from publicly accessible viewpoints within their neighborhoods, while recreationists would be sensitive to views within recreational facilities in the study area.

Section 3.1.5, *Representative Viewpoints*, and Figures 3.1-3A through 3.1-K, provide an overview of the existing visual landscape and character within the study area, including photographs.

Construction

Although construction equipment may temporarily introduce visually unappealing elements to the landscape, these changes would not be permanent. Visual impacts would occur from the presence of construction equipment, materials, and work crews along the Project's 14.2 miles of transmission lines, two new HVDC terminals, the existing PG&E Metcalf and PG&E San José B substations, and 12 staging areas. These impacts would be most noticeable to nearby residents, motorists, and recreationists, but they would be temporary and short term.

LSPGC would implement **APM AES-1: Maintenance of Construction Areas**, which states that all proposed construction sites would be maintained in a clean and orderly state, and temporary work areas would be returned to preconstruction conditions. LSPGC would implement **APM BIO-1: Restoration of Disturbed Areas**, which states that once construction is complete in a given area, natural vegetation areas that are temporarily disturbed by Project activities shall be restored to approximate preconstruction conditions. LSPGC would implement **APM BIO-7: Outdoor Lighting Measures**, which states that outdoor lighting during construction and operation and maintenance shall be minimized, using photocell and motion-controlled lights for safety and security, directed downward where possible, with night work avoided unless required by local municipalities, primarily in commercial and industrial areas. LSPGC would implement **APM REC-3: Trail Restoration**, which states that areas of Coyote Creek Trail temporarily disturbed by Project activities shall be restored to approximate preconstruction conditions. LSPGC would implement **APM TRA-3: Repair Infrastructure**, which would help ensure that contractors repair any damage caused by construction activities. LSPGC would implement these APMs to further reduce the amount of time construction activities would be visible. Given their limited duration, these impacts would not substantially degrade the visual quality of the site or its surroundings.

Additionally, the proposed Skyline HVDC Terminal site, Staging Area 3, and other Project sites currently have an industrial visual character, so the construction activities and presence of construction equipment would not create a strong visual contrast. Therefore, construction of the Project would not conflict with applicable zoning and other regulations governing scenic quality in the area.

Upon completion of Project construction, any remaining staging areas and equipment not removed during the transmission line construction would be removed. APM AES-1, BIO-1, and TRA-3 require restoration of temporarily disturbed natural vegetation areas and any damage caused by the

Project's construction activities would be repaired to approximate preconstruction conditions. Therefore, potential impacts due to Project construction would be **less than significant**.

Operation and Maintenance

Section 3.1.6 lists the applicable zoning and local regulations related to scenic quality, which generally encourage the protection of scenic resources, public views, and overall visual characteristics.

Section 3.1.5 provides a summary of the existing visual conditions and visibility of the Project area from the KOPs, as well as photographs from representative viewpoints. To evaluate the visual changes that would result from the Project's implementation, four visual simulations were prepared based on photographs taken at identified KOPs, including areas of the Project that would be visible from public viewpoints.

As seen in Table 2-1 in Chapter 2, the Project's proposed transmission lines would span approximately 14.2 miles total. Once constructed, nearly the entire 14.2 miles of the proposed transmission lines would be underground and not visible to viewers. Only 100 feet of the proposed Skyline to San José B 230 kV Transmission Tie Line would be overhead and visible and would have the potential to conflict with applicable zoning and other regulations governing scenic quality in the study area. This proposed Skyline to San José B 230 kV Transmission Tie Line would connect the proposed Skyline HVDC Terminal to the modified PG&E San José B Substation. Motorists, recreationists, and residents are the viewer groups that would be affected by visual changes observed from public viewpoints.

As mentioned in Section 2.6.3, *Existing PG&E Substations*, the new facilities for associated with the proposed modifications at the PG&E San José B Substation would reach heights of up to approximately 95 feet above grade, while proposed modifications at the PG&E Metcalf Substation would reach up to 105 feet. Existing facilities at the PG&E Metcalf Substation range in height up to approximately 130 feet, whereas those at the existing PG&E San José B Substation reach up to 105 feet above grade. Therefore, the proposed overhead transmission line would not exceed the height of existing facilities and would be similar to the existing industrial visual character of the existing PG&E San José B and PG&E Metcalf substations. The proposed transmission line would use similar materials, colors, and support structures as those currently present, maintaining visual consistency with the surrounding infrastructure.

The Santa Clara County General Plan and the City of San José General Plan goals and policies listed in Section 3.1.6, aim to preserve and enhance scenic and aesthetic resources while ensuring that development aligns with established visual and environmental standards. These policies emphasize protecting scenic corridors, maintaining open spaces, minimizing visual impacts from infrastructure and development, and promoting high-quality, aesthetically compatible urban and rural environments to uphold the area's visual character and quality of life. Therefore, the overhead transmission line would not create a strong visual contrast compared to the existing industrial visual character of the site and would be consistent with applicable zoning and other regulations governing scenic quality in the area.

The Project includes upgrades at two existing PG&E substations: modifications to the existing PG&E Metcalf Substation and expansion and modifications to the existing PG&E San José B Substation. These upgrades would occur within and adjacent to the existing PG&E substation facilities. Motorists, recreationists, and residents would be affected by visual changes observed from the public viewpoints surrounding the existing substations. The substation upgrades would be consistent with the appearance of facilities within the existing substations and would not substantially change the existing industrial visual character or quality of public views in the Project area. LSPGC would implement **APM AES-2: Site Design and Landscape Management Plan**, which includes requirements for non-reflective, earthtone finishes on structures and adherence to local design guidelines, unless overridden by safety, security, or operational concerns. The substation upgrades would incorporate similar materials, colors, and structural elements as those currently present, ensuring uniformity with the existing substation facilities. The proposed substation upgrades would blend seamlessly with these elements, preserving the established visual character. Therefore, the impacts from the proposed substation upgrades would be **less than significant**.

The Project includes the construction and operation of the proposed Skyline HVDC Terminal located within San José proper. The proposed Skyline HVDC Terminal would be located adjacent to the existing PG&E San José B Substation (see Figure 3.1-1) in downtown San José, which is the most urban part of the Project area. Motorists, recreationists, and residential viewer groups would be affected by visual changes observed from public viewpoints. The construction of the proposed Skyline HVDC Terminal would occur within and adjacent to the existing PG&E San José B Substation and would not substantially change the visual character of the area or degrade the scenic quality of the study area. This Project component would also be consistent with San José General Plan policies IN-1.9 and CD-5.5, which address design considerations for utility facilities and aesthetic cohesiveness.

The Project also includes the construction and operation of the proposed Grove HVDC Terminal, located within both the City of San José and unincorporated Santa Clara County. The proposed Grove HVDC Terminal would be located along Monterey Road, passing through the outskirts of the City of San José and briefly through unincorporated Santa Clara County (see Figure 3.1-2). It would traverse open fields, rolling hills, creek beds, industrial developments like the existing PG&E Metcalf Substation, and agricultural fields with set-back residential lots. Motorists, recreationists, and residential viewer groups would be affected by visual changes observed from public viewpoints.

The proposed Grove HVDC Terminal would be constructed 0.65-mile south of the existing PG&E Metcalf Substation. The construction of the proposed Grove HVDC Terminal would occur within a mix of natural and developed elements, combining open rural landscapes with industrial infrastructure, including existing overhead powerlines along Monterey Road. Therefore, it would not substantially change the visual character of the area or degrade the scenic quality of the study area. Additionally, APM AES-2 includes requirements for non-reflective, earth tone finishes on structures, the preservation of existing vegetation at the proposed Grove HVDC Terminal, and adherence to local design guidelines, unless overridden by safety, security, or operational concerns. This Project component would also be consistent with San José General Plan policies

IN-1.9 and CD-5.5 and Santa Clara County General Plan policies C-RC 57 and C-RC 61, which address design considerations for utility facilities and aesthetic cohesiveness.

In Figure 3.1-4, the view looks southeast toward the proposed Skyline HVDC Terminal site from the Guadalupe River Park and Trail. The immediate foreground includes a vacant lot with chain-link fence and light post, as well as a highway overpass. The middleground includes views of buildings of varying heights. The existing visual character of this KOP is industrial, with urban elements in the middleground. The proposed Skyline HVDC Terminal would obstruct most of the foreground view and the entire middleground (see Figure 3.1-4, KOP 1, B – Visual Simulation). A light post would still be visible in the foreground, along with an exterior wall, buildings, and other components of the proposed Skyline HVDC Terminal.

Although not the focus of KOP 1, the key scenic features of Guadalupe River Park and Trail include the winding trails that serve as recreational pathways through the city, natural vegetation amidst the surrounding urban landscape, and the river itself. The proposed Skyline HVDC Terminal would be situated to the east of the closest trail segment in the park, while the scenic views are located to the north, south, and west of this section of the trail. The Project's implementation would not block or alter these views away from the terminal site. However, the proposed Skyline HVDC Terminal would introduce a significantly different view to the east, which currently features more industrial and urban elements rather than the meandering trails, natural vegetation, or the river.

LSPGC would implement APM AES-2 to add design features, such as non-reflective surfaces and gray or neutral earth tone coloration consistent with the site's surroundings that would potentially soften the industrial appearance of the terminal site. Additionally, the Guadalupe River Trail passes through the City of San José, immediately outside of downtown, which has a largely urban character. Recreationists in this area already encounter views of the existing PG&E San José B Substation, located adjacent to the proposed Skyline HVDC Terminal to the north. As recreationists continue south on the trail, they pass a large concrete parking garage and several multi-story buildings, further reinforcing the area's urban character. Given this context, the proposed Skyline HVDC Terminal site would maintain its general industrial visual character, and the structures at KOP 1 would not intensify the industrial presence in the area. Additionally, LSPGC would implement APM AES-2, which would reduce the visual impact of the proposed Skyline HVDC Terminal. Considering the proposed Skyline HVDC Terminal is a permitted use on this site zoned Downtown Primary Commercial, the proposed terminal's impact on aesthetics in this view would be **less than significant**.

As shown in Figure 3.1-5, the view looking south toward the proposed Skyline HVDC Terminal site from Santa Teresa Street includes streets and sidewalks with trees, a vacant lot, and chain-link fence in the foreground, and buildings of varying heights in the middleground. A corner of the existing PG&E San José B Substation site is also visible to the right of the photograph. Motorists and residents have been identified as the sensitive viewer groups for KOP 2, with low to moderate visual sensitivity.

The addition of the proposed Skyline HVDC Terminal would partially obscure current middleground views by adding a new building, structures, and utility poles on the vacant lot (Figure 3.1-5). The existing streets, sidewalks, trees, and existing PG&E San José B Substation would still be visible in the foreground, although the terminal structures would partially block views in the middleground. The line, color, and form of the terminal site components and additional utility poles would be consistent with the visual components in the existing view. The proposed Skyline HVDC Terminal would not create a substantial visual contrast when compared to the existing buildings visible in the middleground and would be consistent with the surrounding uses, including the existing substation and utility poles.

Additionally, LSPGC would implement APM AES-2, which would add design features, such as non-reflective surfaces and gray or neutral earth tone coloration that would make the terminal site more consistent with the existing visual landscape. Considering the proposed Skyline HVDC Terminal is a permitted use on this site zoned Downtown Primary Commercial, the terminal's low visual change or contrast in the view at KOP 2, and the low to moderate sensitivity of motorists and residents in the area of KOP 2, the proposed Skyline HVDC Terminal's impact on aesthetics in this view would be **less than significant**.

As shown in Figure 3.1-6, the view of the proposed Grove HVDC Terminal site from Coyote Creek Parkway and Trail includes a chain-link fence, trees, tall grasses, and foothills in the foreground and middleground. The addition of the proposed Grove HVDC Terminal would partially obscure a portion of the current middleground views of the foothills and trees with structures (Figure 3.1-5, KOP 3, B – Visual Simulation). The trees and tall grasses in the foreground and middleground would still be visible.

LSPGC would implement APM AES-2, which would reduce impacts associated with the addition of the infrastructure at the proposed Grove HVDC Terminal. The structures of the proposed Grove HVDC Terminal would be designed to include colors that would be consistent with the existing visual character of the area. Although not evident in the simulated view, APM AES-2 would require that a Landscape Plan is developed for this site to include keeping existing vegetation along the proposed Grove HVDC Terminal site boundary adjacent to the trail and Monterey Road. The remaining trees and other vegetation would partially obscure the structures for the proposed Grove HVDC Terminal and would reduce the sharp contrast between the buildings and the hillsides. The proposed Grove HVDC Terminal would not create a substantial visual contrast due to its design, which would include colors that remain consistent with the existing visual character of the surrounding area. Therefore, the proposed Grove HVDC Terminal's impact on aesthetics in this view would be **less than significant**.

Figure 3.1-7 shows a view from Monterey Road looking north toward the proposed Grove HVDC Terminal site. As the before and after images indicate, the proposed buildings would be visible to motorists and would partially obstruct existing views of trees and hillsides (Figure 3.1-7. However, the infrastructure of the proposed Grove HVDC Terminal would be designed to include colors that remain consistent with the existing visual landscape. Additionally, LSPGC would implement APM AES-2, which would require the development of a Site Design and Landscape Plan for this site, including retaining the existing vegetation within the boundary of the proposed

Grove HVDC Terminal site that is adjacent to Monterey Road, which would further screen the structures. The proposed Grove HVDC Terminal would not create a substantial visual contrast due to its design, which would include colors that remain consistent with the existing visual character of the surrounding area, including the existing utility poles along Monterey Road. Therefore, the Grove HVDC terminal's impact on aesthetics in this view would be **less than significant**.

The Project components would be remotely monitored on a day-to-day basis and require monthly inspections. The Project and associated operation and maintenance activities would typically use trucks and other equipment similar to those currently used in the area. These operation and maintenance activities would not change the character or decrease the quality of any visual or scenic resources in the area beyond the physical presence of the aboveground facilities.

The visual changes resulting from the visible Project components evident to viewer groups would not substantially change the existing visual character or quality of the Project area or its surroundings. These components would be located in areas where such utility structures currently exist and have similar design characteristics (i.e., height, placement, dull metal finish). The Project would not conflict with local zoning regulations or general plan policies related to aesthetics, such as San José General Plan Policy IN-1.9 (compatibility with adjacent uses), and Santa Clara County General Plan Policy C-RC 61 (development and infrastructure). Although the Project would be noticeable from public viewpoints, the visual changes would be visually consistent with the existing structures in the study area. Therefore, the impact of the Project on applicable zoning and other regulations governing scenic quality in the study area would be **less than significant**.

Mitigation: None required.

Criterion d) Whether the Project would create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

Impact 3.1-2: The Project would create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area. (*Less than Significant with Mitigation)*

Construction

As noted in Section 2.6.1, *New High-Voltage Direct Current Terminals*, lighting would be installed at the proposed Skyline and Grove HVDC Terminal locations and would conform to National Electric Safety Code requirements and City of San José applicable outdoor lighting codes. Lighting would also be installed at staging areas for security purposes and would be shielded to direct light downward and away from any nearby sensitive receptors. Night work would be avoided as practicable; however, given the large amount of construction proposed within existing roads, local municipalities may dictate that transmission line construction occurs at nighttime within certain areas of the Project site. The most likely areas for nighttime construction are within commercial and industrial areas, rather than residential or other areas potentially sensitive to light.

LSPGC would implement APM AES-1, which states that temporary construction lighting shall be directed away from residential areas and have shields to prevent light spillover effects. LSPGC would also implement APM BIO-7, which requires that outdoor lighting use during construction shall be minimized whenever practicable, using photocell and motion-controlled lighting for safety and security, with shielded, downward-directed placement. Night work would be avoided except where required by local municipalities, primarily in commercial and industrial areas. However, even with the implementation of APM AES-1 and APM BIO-7, uncontrolled fugitive lighting could result in a new source of light that could adversely affect daytime or nighttime views, which would have a significant impact.

To ensure that fugitive lightning (i.e., light trespass) is controlled at all times, such as when nighttime work is necessary or when lightning is needed for safety reasons, **LSPGC Mitigation Measure 3.1-2: Minimize Fugitive Light from Temporary Sources Used for Construction** would be implemented. Implementation of LSPGC Mitigation Measure 3.1-2 would reduce—to the extent as governed by site-specific safety and sensitive species protection requirements—the overall amount of new daytime and nighttime light and glare introduced to the Project vicinity during construction. Thus, implementation of LSPGC Mitigation Measure 3.1-2 would reduce potential impacts related to uncontrolled fugitive lighting.

The PG&E Metcalf and PG&E San José B substations construction and modifications would occur within each of the existing facilities where security and safety lighting already exist. Glare sources can be generated from windshields or other reflective materials on construction equipment. However, this would be episodic and weather-dependent, occurring intermittently, and would not create a substantial new source of glare. Construction activities at these substations would not introduce new sources of glare or lights that are substantially different from the existing environment.

Therefore, with the implementation of LSPGC Mitigation Measure 3.1-2, impacts under this criterion would be **less than significant**.

Operation and Maintenance

Light and glare sources can be introduced through various aspects of a project, including the installation of safety and security lighting or the addition of reflective materials. The PG&E Metcalf and PG&E San José B substations are existing facilities where security and safety lighting already exist, and no additional lighting would be needed. As explained in Section 2.6.1, lighting would be installed at both proposed Skyline and Grove HVDC Terminals and would conform to National Electric Safety Code requirements and City of San José outdoor lighting codes. The infrastructure at the proposed Skyline and Grove HVDC Terminals, as well as the new infrastructure as part of the modifications to the PG&E San José B and PG&E Metcalf substations, would have non-reflective finishes. The proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV Transmission Line would both be underground and would not require lighting or be sources of glare.

The facilities at the proposed Grove HVDC Terminal are not likely to require consistent nighttime illumination; however, facilities at the proposed Skyline HVDC Terminal would

require consistent nighttime illumination (e.g., for security). Such nighttime illumination could create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

LSPGC would implement APM AES-1, which requires that permanent security nighttime lighting shall be directed away from residential areas and have shields to prevent light spillover effects. LSPGC would also implement APM AES-2, which outlines requirements for non-reflective, earth tone finishes on structures. Furthermore, LSPGC would implement APM BIO-7, which states that the use of outdoor lighting during operation and maintenance shall be minimized whenever practicable, and night work is not likely, except during emergencies. Additionally, the proposed components of the Project that would be installed within the existing PG&E substations would be visually consistent with the existing facilities.

As explained, the modifications at the PG&E Metcalf and PG&E San José B substations would not introduce new sources of glare or light that are substantially different from the existing environment.

For the reasons discussed above, the proposed Skyline and Grove HVDC Terminals would not introduce a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area, thus, Project operation and maintenance impacts under this criterion would be **less than significant**.

Mitigation: Implement LSPGC Mitigation Measure 3.1-2.

LSPGC Mitigation Measure 3.1-2: Minimize Fugitive Light from Temporary Sources Used for Construction

The use of outdoor lighting shall be minimized during construction, operation, and maintenance. Photocell and motion detection-controlled lighting shall be provided at a level sufficient to provide safe entry and exit to the Project work sites and to ensure the security of the sites. All lighting shall be selectively placed, shielded, and directed to minimize fugitive light. Portable lights shall be operated at the lowest feasible wattage and height. The number of nighttime lights used shall be limited to those necessary to accomplish the task completely and safely. All lighting near sensitive species habitat shall be directed away from these areas where feasible.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.1-2 would ensure that impacts associated with light and glare would be less than significant.

3.1.10 Cumulative Effects Analysis

The geographic scope for the cumulative impacts associated with aesthetic and visual resources is the same as described in Section 3.1.2.1 for the evaluation of direct and indirect impacts attributable to the Project. The study area consists of publicly accessible locations, including those from major or scenic roadways, scenic vistas, parks, and/or lands used for recreational purposes from which components of the Project may be visible.

This analysis assumes full build-out of the projects listed in Section 3.0.3, *Approach to Cumulative Impacts Analysis*. Because the Project is not planned for decommissioning, the temporal scope for analysis of cumulative effects would be permanent. The projects listed in Table 3.0-1, *Cumulative Projects List*, include new and proposed residential developments, utility infrastructure, commercial spaces, and mixed-use development. These projects and other future developments would be subject to the applicable city and/or county planning processes and state environmental review on a project-by-project basis.

3.1.10.1 Criterion a)

As concluded under criterion a) in Section 3.1.9.2, *Direct and Indirect Effects*, the Project would have no impact on scenic vistas because no designated scenic vistas were identified within the aesthetics study area. Therefore, the Project would have no incremental impact that could combine with incremental impacts of other projects in the cumulative scenario to cause or contribute to any significant cumulative effect relating to criterion a). (*No Impact*)

3.1.10.2 Criterion b)

As concluded under criterion b) in Section 3.1.9.2, the Project would not substantially damage scenic resources within a state scenic highway since there are no officially designated state scenic highways within 5 miles of the Project; accordingly, it would have no impact relating to criterion b). Therefore, the Project would cause no incremental impact that could combine with the incremental impacts of other projects to cause or contribute to any significant cumulative effect relating to criterion b). (*No Impact*)

3.1.10.3 Criterion c)

Impact C.3.1-1: The Project, in combination with the cumulative projects, would not cumulatively conflict with applicable zoning and other regulations governing scenic quality in the area. *(Less than Significant)*

As discussed under Section 3.1.6, local land use regulations and zoning would not apply to the Project, pursuant to CPUC General Order 131-D Section XIV. Project construction may temporarily introduce visually unappealing elements to the visual landscape which would occur from the presence of construction equipment, materials, and work crews. Since the Project would include the installation of permanent aboveground structures, such as proposed HVDC terminals, there is a possibility that these proposed permanent structures could result in visual changes that may impact the scenic quality in the area, and thus, potentially conflict with applicable zoning and other regulations governing scenic quality in the area.

The cumulative projects listed in Table 3.0-1 include, but are not limited to, ongoing and proposed residential developments, utility infrastructure, commercial spaces, and mixed-use developments, all of which would involve some level of new visual change to existing conditions. However, the cumulative projects, like the Project, would be required to undergo consistency and/or design reviews with applicable jurisdictions' codes and regulations governing scenic quality in the area. As such, the Project, in combination with the cumulative projects, is anticipated to be consistent with applicable plans and regulations, notably those that govern scenic quality.

Given that Project construction would be temporary and LSPGC would also implement APM BIO-1 and APM TRA-3, the incremental impact attributable to the Project would not be cumulatively considerable. Therefore, the Project, in combination with the cumulative projects, would not conflict with applicable zoning and other regulations governing scenic quality in the area and would not be cumulatively considerable. This cumulative impact would be **less than significant**.

Mitigation: None required.

3.1.10.4 Criterion d)

Impact C.3.1-2: The Project, in combination with the cumulative projects, would not create a new source of substantial light or glare which would cumulatively adversely affect daytime or nighttime views in the area. (*Less than Significant with Mitigation*)

As discussed in Impact 3.1-2, Project construction would temporarily install lighting at staging areas for security purposes. Night work would be avoided as practicable; however, there could be instances when local municipalities may require nighttime construction. For these instances, nighttime construction is anticipated to occur in commercial and industrial areas, rather than residential or other areas potentially sensitive to light. Project construction, by nature, is temporary, thus would not permanently create a source of substantial light or glare. However, uncontrolled fugitive lighting associated with the cumulative projects could combine with the fugitive lighting of the Project to result in a new source of light that could adversely affect daytime or nighttime views. Therefore, the Project's fugitive lighting would be cumulatively considerable and a significant cumulative impact during construction would occur.

In addition to the APMs discussed above, LSPGC would implement LSPGC Mitigation Measure 3.1-2, which would minimize the use of outdoor lighting during Project construction activities and would reduce the Project's contribution to the cumulative impact to a less-than-significant level. Additionally, like the Project, the cumulative projects are anticipated to undergo consistency and/or design reviews with applicable jurisdictions' codes and regulations, particularly those that address new sources of light or glare, which would address potential cumulative impacts related to adverse effects on daytime or nighttime views in the area.

For these reasons, the Project, in combination with the cumulative projects, would not create a new permanent source of substantial light or glare and the Project's incremental permanent impact would not be cumulatively considerable. This cumulative impact would be **less than significant**.

Mitigation: Implement LSPGC Mitigation Measure 3.1-2.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.1-2 would result in less-than-significant cumulative impacts related to this criterion.

3.1.11 References

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3.2 Agriculture and Forestry Resources

This section evaluates the impacts of the Project related to agriculture and forestry resources. It includes information about the physical and regulatory setting, and it identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. The information and analysis presented are based in part on the agriculture and forestry resources presented in the Proponent's Environmental Assessment (LSPGC 2025). For the purposes of this agriculture and forestry analysis, the study area is defined as the Project components along with a 2-mile buffer surrounding these components.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the EIR. Santa Clara Valley Open Space Authority (SCVOSA) noted in their comments that the Project would be located in the Coyote Valley Conservation Area, which was declared by the (California) State Legislature as a resource of statewide significance. The SCVOSA comments also expressed concerns about impacts to wildlife connectivity areas and the loss of prime farmland. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period.

3.2.1 Environmental Setting

3.2.1.1 Regional Setting

Agricultural Resources

The Project area is in central Santa Clara County, where much of the area's open land has been developed. The primary agricultural areas in the county are in the valleys south and east of Gilroy. These areas mainly produce flowers, vegetables and grains, fruits, nuts, berries, and other crops (Santa Clara County 1994). In 2023, the top 10 crops that Santa Clara County produced were nursery crops, mushrooms, lettuce, bell peppers (fresh and processed), tomatoes, Asian vegetables, wine grapes, corn, and broccoli. Orchard crops (cherries) were among the top 10 crops in 2022 but fell to 14th in crop production value in 2023. With the exception of spinach, wine grapes, and corn, all crops saw an increase in value from the previous year of 2022. In addition to crops, Santa Clara County also produced livestock and poultry, as well as registered beehives for harvest in 2023 (Santa Clara County 2023).

Agriculture is a notable economic enterprise in Santa Clara County, particularly in the South County area; few pockets of agricultural land use remain in northern Santa Clara County. The Santa Clara Valley, once known as the "Valley of Heart's Delight" for its orchards and canneries, has a rich agricultural history. Although agriculture in the valley looks different today compared to in the 1900s, the region continues to produce over $371 million annually in agricultural commodities. From nursery crops to a diverse variety of fruits, vegetables, and livestock, these agricultural lands continue to contribute to local and national markets. Since the 1950s, urban development and sprawl have claimed many of Santa Clara Valley's orchards and fields, leading to skyrocketing land values and development pressures. Increases in water rates and the number of small, disconnected agricultural parcels pose additional challenges to the county's working lands. Although local agriculture is a vital economic resource in Santa Clara County, the rate of

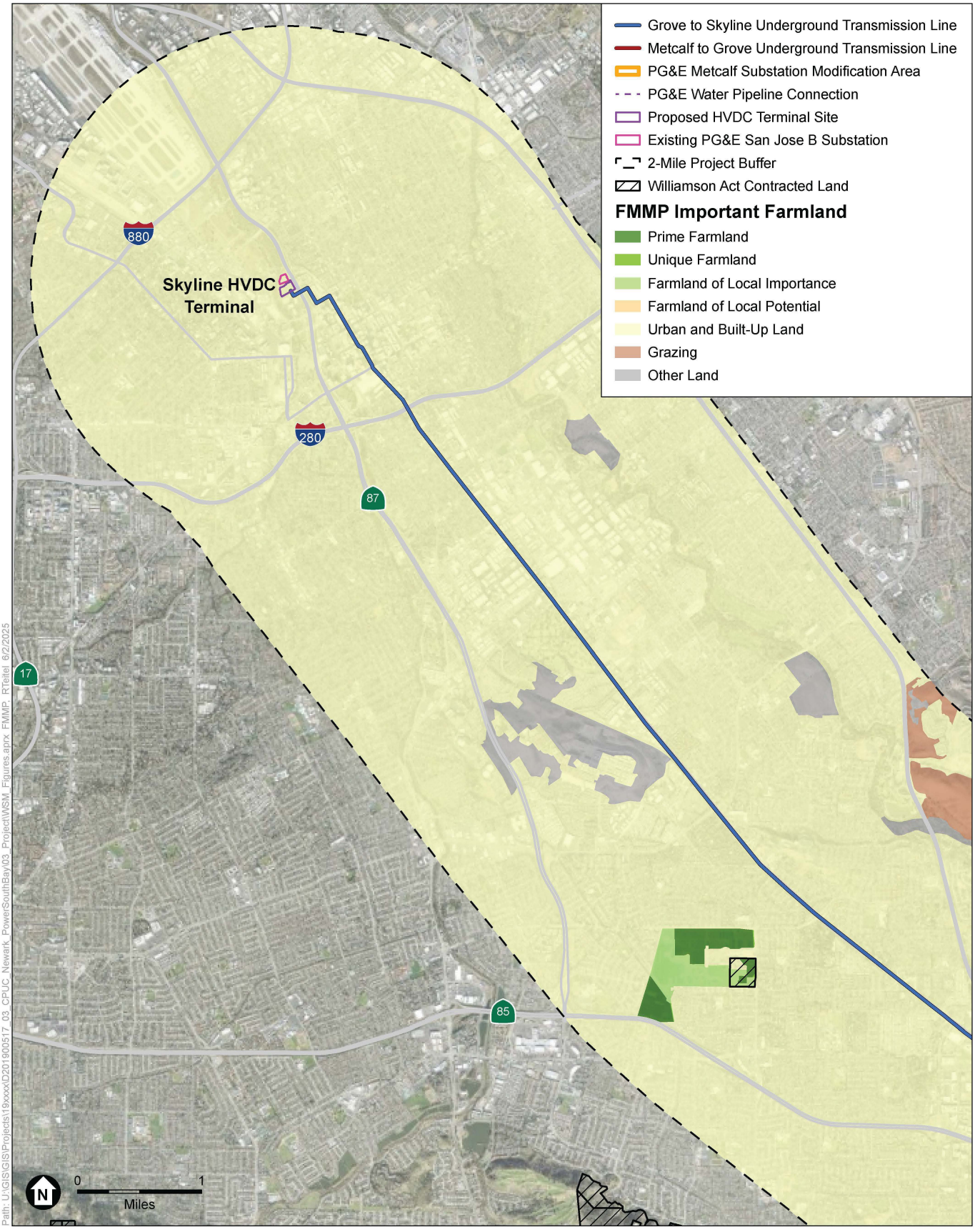
growth and development places pressure on the region's working lands. Over the last 20 years, farmland in the county has declined by 45 percent and fertile lands remain at risk for urban development. Of the remaining 27,000 acres of farmland, roughly half are considered at risk of development over the next 30 years (Santa Clara Valley Open Space Authority 2024). Farmland conversion in Santa Clara County is documented by the California Department of Conservation Division of Land Resource Protection's Farmland Mapping and Monitoring Program (discussed in further detail in Section 3.2.2, *Regulatory Setting*). According to the most recent published conversion report, there was a net loss of 540 acres of prime farmland in Santa Clara County during the reporting period between 2016 and 2018 (CDOC 2018).

The area surrounding the Project components within the city of San José can be characterized as urban, developed, or disturbed and heavily populated. The only native woodland habitats in the Project area are located along waterways, primarily in the vicinity of the existing PG&E Metcalf Substation. A riparian corridor associated with Coyote Creek runs parallel to the proposed right-of-way corridor and Monterey Road to the north–northeast, while grasslands associated with the Tulare Hill Ecological Preserve run parallel to the proposed right-of-way corridor and Monterey Road to the south–southwest (LSPGC 2024b). The Project would also be partially located within the Santa Clara County Agricultural Preserves zoning designation, as well as within the city of San José's sphere of influence on land designated as the Coyote Valley Agriculture Overlay.

There is land within the Project and greater study areas mapped by the Farmland Mapping and Monitoring Program (FMMP) as agricultural land, as well as parcels that are zoned for agricultural use or subject to a Williamson Act contract. The parcels which the proposed Grove high-voltage direct current (HVDC) HVDC Terminal (Grove HVDC Terminal) would occupy are classified as Prime Farmland and are zoned as Santa Clara County Agricultural Preserve. The remainder of the parcels that comprise the Project are categorized as Urban and Built-Up Land and are not classified as agricultural land under the FMMP. However, there are FMMP important farmland classifications within the 2-mile buffer zone, including Prime and Unique Farmland and a Williamson Act parcel approximately 1 mile east of the centerline of the proposed transmission line. Additionally, there is Grazing land, Prime Farmland, Unique Farmland, and Williamson Act contracted land surrounding the existing PG&E Metcalf Substation and proposed Grove HVDC Terminal. The closest property subject to a Williamson Act contract is a 200-acre parcel located approximately 0.25 mile northeast of the PG&E Metcalf Substation. See **Figure 3.2-1**, *Farmland Mapping and Monitoring Program Important Farmland*, for a depiction of FMMP categories in and around the Project, and **Figures 3.2-2a** and **3.2-2b**, *Agricultural Zoning*, for a map of agricultural zones within and around the Project's vicinity.

Forestry Resources

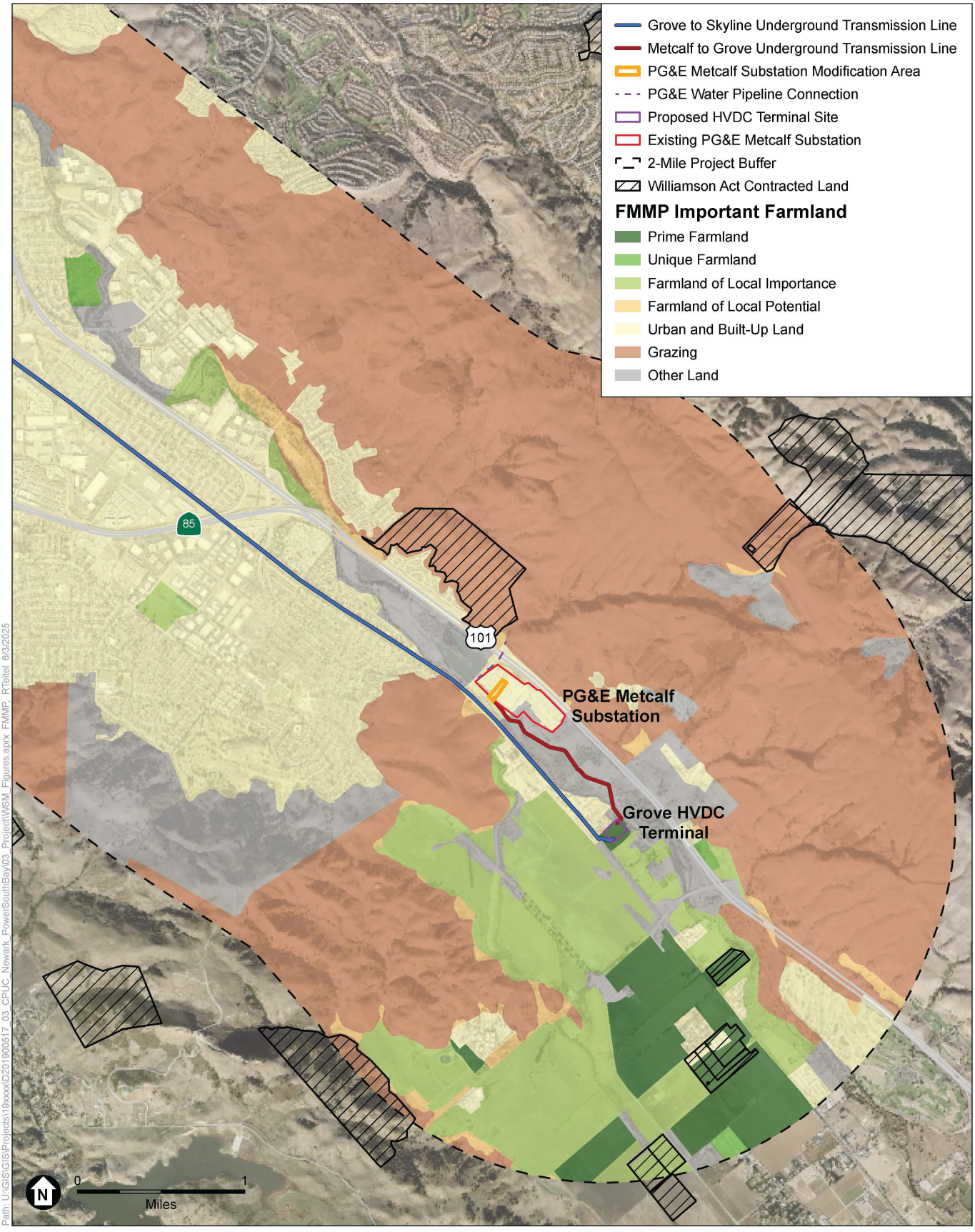
Santa Clara County is home to numerous forest habitats, including coniferous forests (such as redwood, Douglas fir, cedars and pines), a mix of hardwoods, and various oak woodlands. In 2023, Santa Clara County harvested 1,884 thousand board feet of timber, its only forest product (Santa Clara County 2023). Most of this timber harvest came from the coniferous forests of the Santa Cruz Mountains. Additionally, non-commercial timber harvesting and tree removal occur in rural unincorporated areas for various reasons, including development, agriculture, and public safety (Santa Clara County 1994).



SOURCE: ESA, 2024; CDOC, 2024

Power Santa Clara Valley Project

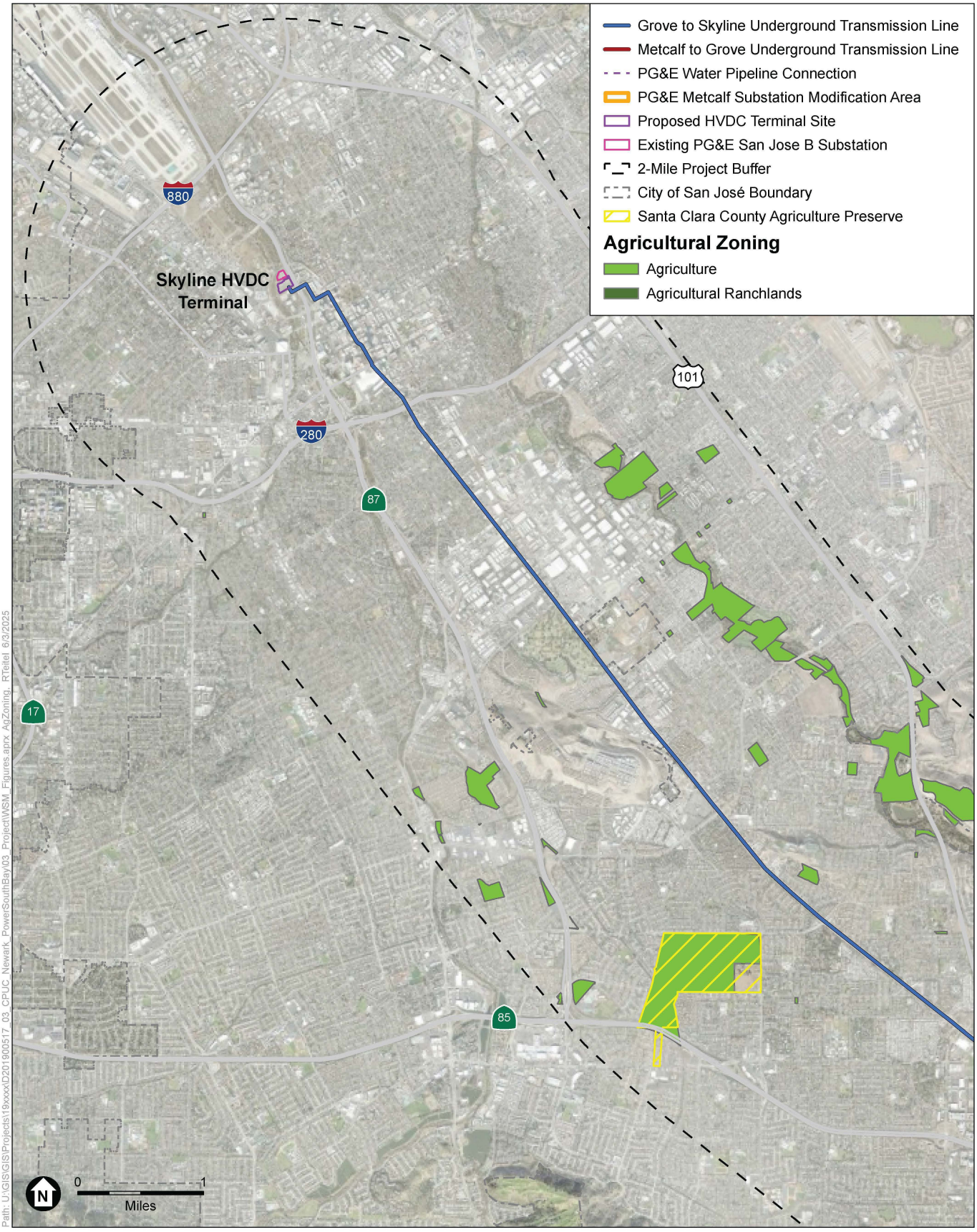
Figure 3.2-1a
FMMP Important Farmland



SOURCE: ESA, 2024; CDOC, 2024

Power Santa Clara Valley Project

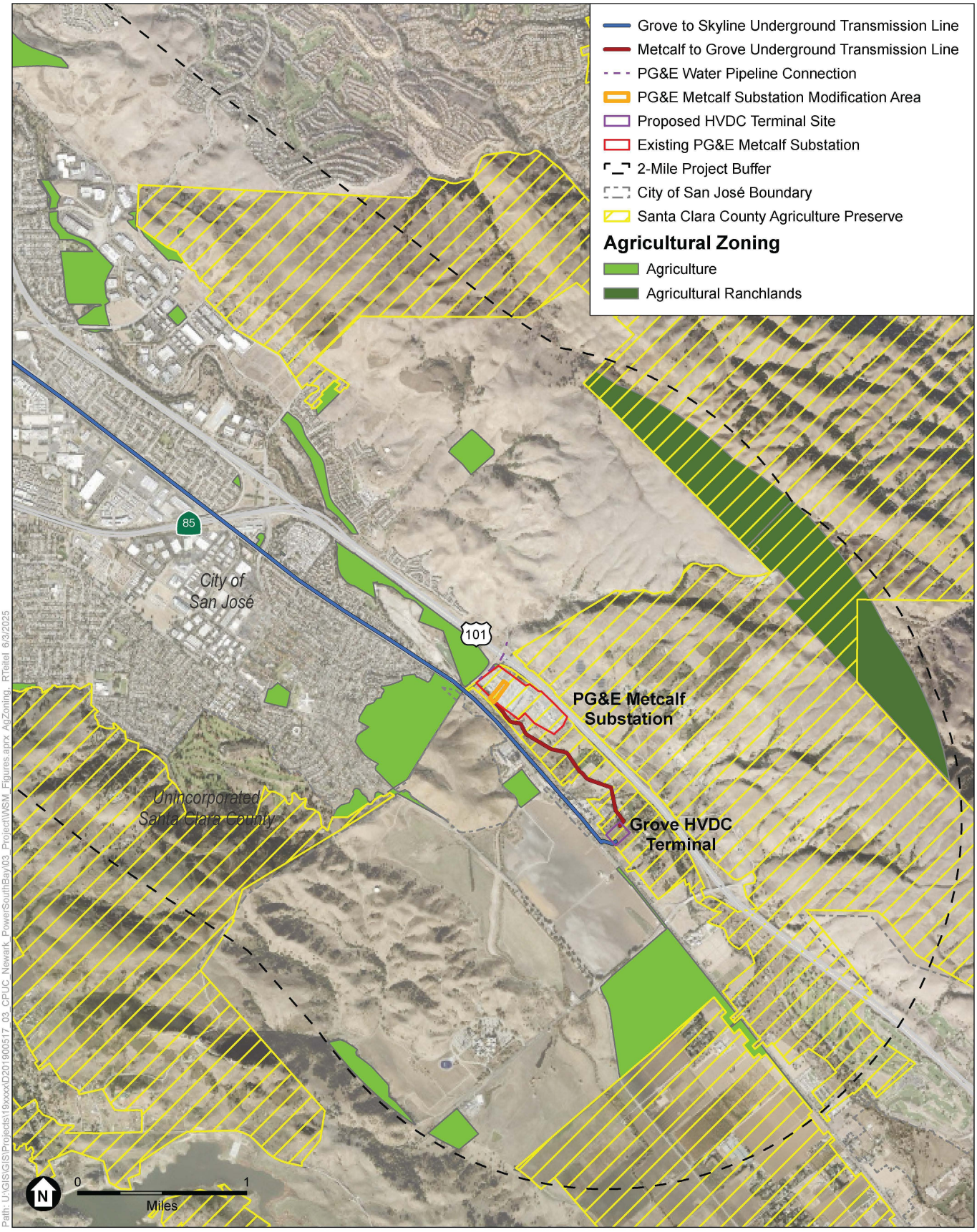
Figure 3.2-1b
FMMP Important Farmland



SOURCE: ESA, 2024; City of San Jose, 2024; Santa Clara County, 2024

Power Santa Clara Valley Project

Figure 3.2-2a
Agricultural Zoning



SOURCE: ESA, 2024; City of San Jose, 2024; Santa Clara County, 2024

Power Santa Clara Valley Project

Figure 3.2-2b
Agricultural Zoning

No forestry resources lie within the Project area, and none of the Project's parcels contain any designated forest land[1] (as defined by Public Resources Code Section 12220[g]), timberland[2] (as defined by Public Resources Code Section 4526), or land zoned for Timberland Production (as defined by Government Code Section 51104[g]). One orchard area is at the southeastern end of the study area near the proposed Grove HVDC Terminal. This cover type represents less than 1 percent of the total study area and is not considered a forestry resource. Hardwood woodlands also exist in the study area, primarily in riparian areas of Coyote Creek. See Section 3.4, *Biological Resources*, for a discussion of forest and wildlife habitats. Hardwood trees are not considered timberlands; there are no commercial forests are within 2 miles of the Project components. The closest forests and timberlands that meet these definitions (Government Code Section 51104[h]) are approximately 10 miles southwest of the study area (CAL FIRE 2025).

3.2.2 Regulatory Setting

3.2.2.1 Federal

Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) was established to minimize the impact that federal programs have on the unnecessary and irreversible conversion of farmland to non-agricultural uses. It helps ensure that, to the extent possible, the federal program administration is compatible with local, state, and private programs and policies to protect farmland. For the purpose of the FPPA, farmland includes prime farmland, unique farmland, and land of local or statewide importance. Farmland subject to FPPA requirements does not have to be currently used as cropland. It can be forest land, pastureland, cropland, or other land, excluding water or urban built-up land. The FPPA includes annual reports, which detail farmland conversion information (USDA 2025).

3.2.2.2 State

California Farmland Mapping and Monitoring Program

The California Department of Conservation has established the FMMP. The FMMP provides a classification system for agricultural land based on technical soil ratings and current land use. It also monitors the conversion of the state's agricultural land to and from farmland use. The minimum land use mapping unit is 10 acres unless otherwise specified; smaller units of land can be incorporated into the surrounding map classifications. The map categories for prime farmland, farmland of statewide importance, and unique farmland are defined by California Department of Conservation as follows (CDOC 2025):

- **Prime Farmland (P):** Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

[1] As defined by Public Resources Code Section 12220(g), *forests* are an area with a tree density exceeding 10 percent coverage.

[2] As defined by Public Resources Code Section 4526, *timberland* is land, other than land owned by the federal government and land designated by the board as experimental forest land, that is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees.

- **Unique Farmland (U):** Farmland of lesser quality soils used to produce the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- **Farmland of Statewide Importance (S):** Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Farmland of Local Importance is defined as land important to the local agricultural economy and is further discussed under Section 3.2.2.3, *Local*.

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965, commonly known as the Williamson Act (Government Code Section 51200 et seq.) authorizes local governments to enter contracts with private landowners to restrict specific parcels of land to agricultural or related open space use in exchange for beneficial tax treatment. The law aims to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses and preventing urban sprawl. Property owners entering into contracts agree to retain land in agriculture for 10 years under the Williamson Act (or 20 years for Farmland Security Zone contracts). In return, the landowner receives reduced property taxes. Local governments receive an annual subvention (grant) of forgone property tax revenues from the state through the Open Space Subvention Act of 1971 (Government Code Section 16140 et seq.). These agreements are facilitated by a rolling term 10- or 20-year contract, which is automatically renewed annually for an additional year unless either party petitions for cancellation or files a "notice of nonrenewal."

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." Similarly, *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."

Timberland Production Zone

California Government Code Chapter 6.7 (Sections 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 Section 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".

Agricultural Preserve

According to the California Government Code Section 51230, a city or county may establish an agricultural preserve. This preserve is in an area where the city or county enters into a contract with landowners in exchange for deed restrictions that prevent non-agricultural use of the land. A preserve must consist of a minimum of 100 acres, but two or more parcels may be combined if they are contiguous or if they are in common ownership. Additionally, a city or county may establish agricultural preserves of less than 100 acres if it finds that smaller preserves are necessary due to the unique characteristics of the agricultural enterprises in the area and that such establishment is consistent with the general plan of the city or county. The appropriate minimum parcel size must be compatible with the agricultural use of that land.

3.2.2.3 Local

The California Public Utilities Commission (CPUC) General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. 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 Project and alternatives are described below.

Santa Clara County

Santa Clara County General Plan

The Santa Clara County General Plan's *Resource Conservation* chapter addresses agriculture and agricultural resources. It recognizes the importance of agricultural uses, products, and jobs to the region's economy. Additionally, it identifies agricultural preservation as a challenge and outlines proactive strategies and policies to preserve agricultural lands and the rural character of agricultural areas in the county. The Santa Clara County General Plan (Santa Clara County 1994) includes the following strategies related to agriculture and forestry resources that are relevant to the Project:

> ***R-LU 3*:** The general intent of each "Resource Conservation Area" designation is to encourage land uses and densities appropriate to the rural unincorporated areas that also:
>
> a) Help preserve rural character
>
> b) Conserve natural, scenic, and cultural resources
>
> c) Protect public health and safety from natural and man-made hazards
>
> d) Preserve agriculture and prime agricultural soils
>
> e) Protect watersheds and water quality
>
> f) Enhance air quality
>
> g) Minimize the demand for and cost of public services and facilities
>
> ***R-LU 8*:** Santa Clara County is enriched by a special combination of the very finest soils, a very favorable, dependable growing climate, and generally adequate water supplies. Lands in agricultural uses contribute to the economy and quality of life enjoyed by county

residents. This combination of factors makes it highly desirable that certain lands be preserved for their intrinsic value as agricultural land and for productive agricultural land uses.

***R-LU 9*:** For those areas of greatest long-term viability for agriculture and highest quality soils, permanent preservation as agricultural land is the ultimate goal. Other areas are designated 'Agriculture' in order to:

a) encourage productive use of lands not currently planned for city development, or

b) preserve lands in agricultural uses where physical limitations, such as frequent flooding or high ground water conditions, make them unsuitable for other uses.

***R-LU 17*:** These lands also contain such important resources as grazing lands, mineral deposits, forests, wildlife habitat, rare or locally unique plant and animal communities, historic and archeological sites, and recreational and scenic areas of regional importance, which serve to define the setting for the urbanized portions of Santa Clara County. Given the importance of these lands to the county's overall quality of life, allowable uses shall be consistent with the conservation and wise use of these resources and levels of development shall be limited to avoid increased demand for public services and facilities.

Farmland of Local Importance

In addition to the FMMP outlined in Section 3.2.2.2, *State*, there are six other mapping categories for Santa Clara County, including the following (CDOC 2025):

1. *Farmland of Local Importance (L)*, which includes land of importance to the local agricultural economy as determined by the County Board of Supervisors and a local advisory committee.
2. *Farmland of Local Potential (LP),* which includes all lands having Prime and Statewide soil mapping units that are not irrigated.
3. *Grazing Land (G)*, which is land on which the existing vegetation is suited to the grazing of livestock.
4. *Urban and Built-Up Land (D)*, which is occupied by structures with a building density of at least 1 unit to 1.5 acres.
5. *Water (W)*, which includes perennial water bodies greater than 40 acres.
6. *Other Land (X)*, which includes all lands that are not included in one of the other mapping categories, such as low-density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, and vacant and non-agricultural land greater than 40 acres and surrounded by urban development.

Mining uses are classified under the FMMP as Other Lands (CDOC 2025). However, because none of these six additional categories are included in CEQA's definition of agricultural land (Public Resources Code Section 21060.1), for environmental review purposes, these agricultural land categories are not the focus of this analysis.

Santa Clara County Sustainability Master Plan

The Santa Clara County *Sustainability Master Plan* integrates the county's many existing policies, programs, practices, and initiatives that promote sustainability. The plan aims to build and maintain a healthy and safe county by reducing climate pollution, adapting to a changing

global climate, enhancing natural resources and the environment, fostering a prosperous and just regional economy, and meeting the needs of current and future generations to help ensure all people have equitable opportunities to reach their full potential (Santa Clara County 2021). The Santa Clara County *Sustainability Master Plan* (Santa Clara County 2021) includes the following goal and strategy related to agriculture and forestry resources that are relevant to the Project:

Goal 4: Natural Lands and Land Use

***Strategy 4.2*:** Working Lands: Implement a comprehensive regional framework in order to preserve the remaining working lands and support a vibrant agricultural economy while mitigating climate change.

Target: Preserve at least 12,000 acres of agricultural lands most vulnerable to development.

Santa Clara County Tree Preservation and Removal Ordinance

Santa Clara County recognizes the economic, environmental, and aesthetic value of its tree population and has implemented a Tree Preservation and Removal Ordinance (Santa Clara County 2004), which states the following:

> *Except as otherwise provided in Section C16-4 of this division, it shall be unlawful for any person to remove any protected tree on any private or public property in designated areas of the county without having first obtained an administrative permit [(a) through (e) below] from the County Planning Office or an encroachment permit [(f) below] from the Department of Roads and Airports.*

The definition of *removal* in the ordinance is broad and includes topping, adverse pruning, and "diminishing the vigor of" or destroying a tree. Requirements for obtaining a use permit or special permit are outlined in Section C16-5 and Section C16-6 (Santa Clara County 2004). Tree removal, as proposed under the Project (described in Section 2.8.3, *Site Preparation*), if within a county right-of-way would require an administrative permit, pursuant to Santa Clara County Tree Preservation and Removal Ordinance requirements.

Santa Clara County Zoning Ordinance

The Santa Clara County Zoning Ordinance is the County's primary means of implementing the General Plan. It establishes regulations and lists allowable uses for specific land use zoning districts. The purpose of the Exclusive Agriculture district, also known as the A district, where portions of the Project would be located, is to preserve and encourage the long-term viability of agriculture and agricultural lands. This district recognizes the vital contributions agriculture makes to the county's economy and quality of life. Its intent is to reserve lands most suitable for agricultural production for agricultural and appropriate related uses. This zoning district aims to provide stability for ongoing agricultural operations and provide new uses necessary to support a viable local agriculture industry. It is also intended to retain open space for those lands that may be suitable for future urbanization until they are included within a city's urban service area and public facilities and services can be economically provided, consistent with community plans and objectives. This district applies to all portions of the county designated as Agriculture: Large-Scale, Agriculture: Medium-Scale, and Open Space Reserve in the General Plan (Santa Clara County 2024).

Santa Clara County Williamson Act Ordinance

The County's Williamson Act Ordinance is set forth in Division C13 of the County Code, which also contains requirements for open space easements and farmland security zone contracts. Its provisions set forth the requirements for county agricultural preserves and contracts pursuant to the Williamson Act, as described in Section 3.2.2.2, *State*.

Santa Clara County Agricultural Preserves

The Santa Clara County Ordinance Code defines agricultural preserves and provides the criteria for establishing, disestablishing, or altering agricultural preserves. See Section 3.11*, Land Use and Planning,* for further information on county zoning pertinent to the Project. The county's agricultural preserves define the boundaries of those areas within the county that contain lands eligible for contracts pursuant to the Williamson Act. Specifically, Section C13-5 states the following:

(a) Each agricultural preserve must contain at least 100 contiguous acres of land unless otherwise indicated by the Board of Supervisors, as long as it's consistent with the County General Plan and zoning ordinance.

(b) The use of any land within an agricultural preserve must be restricted by zoning that is compatible with the agricultural use of the lands.

(c) No agricultural preserve may be disestablished or altered to remove land from the agricultural preserve if removal of the land would cause or contribute to the premature or unnecessary conversion of agricultural land to urban uses or to significant encroachment of incompatible land uses.

(d) All agricultural preserves must comply with the County General Plan and zoning ordinance.

City of San José

Zoning Ordinance

The open space and agricultural zoning districts chapter of the San José zoning ordinance sets forth the land use and development regulations applicable to the open space and agricultural zoning districts. The chapter states: "The purpose of the Agricultural (A) District is to provide for areas where agricultural uses are desirable. The regulations contained in this district are intended to provide for a wide range of agricultural uses as well as implementing the goals and policies of the general plan" (City of San José 2025).

General Plan

The City of San José *Envision San José 2040 General Plan* outlines several agricultural designations, including uses intended for grazing, dairy, livestock, feedlots, orchards, row crops, nursery stock, flower growing, and other commercial uses such as fruit stands and agricultural processing (City of San José 2024). The City of San José *Envision San José 2040 General Plan* (City of San José 2024) includes the following goals and policies related to agriculture and forestry resources that are relevant to the Project:

> **Goal LU-12: Urban Agriculture.** Expand the cultivation and sale of locally grown agriculture as an environmentally sustainable means of food productions and as a source of healthy food for San José residents.

***Policy LU-12.3*:** Protect and preserve the remaining farmlands within San José's sphere of influence that are not planned for urbanization in the timeframe of the Envision General Plan through the following means:

- Limit residential uses in agricultural areas to those which are incidental to agriculture.
- Restrict and discourage subdivision of agricultural lands.
- Encourage contractual protection for agricultural lands, such as Williamson Act contracts, agricultural conservation easements, and transfers of development rights.
- Prohibit land uses within or adjacent to agricultural lands that would compromise the viability of these lands for agricultural uses.
- Strictly maintain the Urban Growth Boundary in accordance with other goals and policies in this Plan.

***Policy LU-12.4*:** Preserve agricultural lands and prime soils in non-urban areas in order to retain the aquifer recharge capacity of these lands.

Goal LU-20: Rural Agriculture. Provide and protect sufficient agricultural land to facilitate local food production, to provide broad community access to healthful foods, to add to a distinct community image, and to promote environmental, fiscal, and economic benefits of rural agricultural lands.

***Policy LU-20.1*:** Protect and preserve the remaining farmlands within San José's sphere of influence that are not planned for urbanization in the timeframe of the *Envision General Plan,* such as mid- and south Coyote Valley through the following means:

1. Strongly discourage conversion of agricultural lands outside the Urban Growth Boundary to non-agricultural uses.
2. Limit residential uses in agricultural areas to those which are incidental to agriculture.
3. Prohibit subdivision of agricultural lands, unless it can be established that the subdivision would not reduce the overall productivity of the land and that viable agricultural operations would be sustained.
4. Encourage contractual protection for agricultural lands, such as Williamson Act contracts, agricultural conservation easements, transfers of development rights, or other property tax relief measures as incentives for preservation of these lands.
5. Restrict land uses within and adjacent to agricultural lands that would compromise the agricultural viability of these lands. Require new adjacent land uses to mitigate any impacts on the use of agricultural lands.
6. Require ancillary non-agricultural land uses on agricultural lands to be ancillary to and compatible with agricultural land uses, agricultural production, and the rural character of the area, and to enhance the economic viability of agricultural operations.

***Policy LU-20.2*:** Preserve agricultural lands and prime soils in non-urban areas in order to provide local and regional fresh food supplies, reduce dependance on foreign products, conserve energy, and retain the aquifer recharge capacity of these lands.

***Policy EC-7.11*:** Require sampling for residual agricultural chemicals, based on the history of land use, on sites to be used for any new development or redevelopment to

account for worker and community safety during construction. Mitigation to meet appropriate end use such as residential or commercial/industrial shall be provided.

Envision San José 2040 Special Land Use Designations and Overlays – Coyote Valley Agriculture Overlay

The Coyote Valley Agriculture Overlay applies to certain specified properties in Coyote Valley with an underlying Agricultural land use designation. The Coyote Valley Agriculture Overlay is intended to protect and preserve agricultural lands to facilitate local food production, provide community access to healthy foods, maintain a unique community character, and promote the environmental, fiscal, and economic benefits of rural agricultural lands. Sites within this overlay are intended for a variety of agricultural uses consistent with the Agriculture land use designation. Development intensity is limited to preserve the viability for agriculture and discourage parcel fragmentation in Coyote Valley. Due to the environmental and fiscal impacts of development in Urban Reserve Areas, no urban or suburban development is planned for areas under this designation. The minimum parcel size for new subdivisions within the Coyote Valley Agriculture Overlay is 40 acres. Existing parcels less than 40 acres can remain at the current size and include uses consistent with the underlying Agricultural land use designation but cannot be subdivided further (City of San José 2024). The proposed Metcalf to Grove 500 kilovolt (kV) alternating current Transmission Line (Metcalf to Grove 500 kV Transmission Line) and proposed Grove HVDC Terminal would be located in the Coyote Valley Urban Reserve area, as delineated in the *Envision 2040 Land Use and Transportation Diagram*. The Urban Reserve designation enables the city of San José to plan and phase growth within the Urban Reserves based on need and ability to provide necessary facilities and services to support additional growth (City of San José 2024).

3.2.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility will be responsible for implementing its measures only to that part of the Project for which it will own or be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation,

PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.2.3.1 Applicant-Proposed Measures

No Applicant-proposed measures have been proposed to address potential effects on agriculture and forestry resources.

3.2.3.2 PG&E Best Management Practices and Field Protocols

No PG&E best management practices or field protocols have been proposed to specifically reduce potential impacts on agriculture and forestry resources.

3.2.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant impact to agriculture and forestry resources if it would do any of the following:

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

b) Conflict with existing zoning for agricultural use or a Williamson Act contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]).

d) Result in the loss of forest land or conversion of forest land to non-forest use.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

3.2.5 Direct and Indirect Effects

3.2.5.1 Approach to Analysis

To assess potential impacts on agriculture, the analysis relies on FMMP mapping, GIS data, site-specific land use and zoning factors, and an evaluation of the agricultural and forestry resources present in the Project's vicinity. Direct effects to agriculture and forestry resources may include the conversion of agricultural lands to non-agricultural uses and conflicts with existing zoning or agricultural conservation contracts or easements. Indirect effects may include nuisances or other physical changes that may result in the conversion to non-agricultural use or degradation of off-site agricultural lands. To assess potential impacts on forest resources, the analysis includes zoning, site-specific environmental characteristics, and applicable definitions of forestry resources set forth in state law upheld by Santa Clara County.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.2.5.2 Impact Assessment

Criterion a) Whether the Project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural use.

Impact 3.2-1: The Project would convert Prime Farmland, as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural use. (*Less than Significant with Mitigation*)

The Project would convert Prime Farmland, which is defined as "farmland with the best combination of physical and chemical features able to sustain long term agricultural production" (see Section 3.2.2.2, *State*). The proposed Grove HVDC Terminal would be located on a 13.6-acre property designated as Prime Farmland, which would be permanently converted to non-agricultural use. Specifically, approximately 3.3 acres of the site are located within the city of San José and zoned for Planned Development within an Agricultural Base District. The remaining 10.3 acres are located within unincorporated Santa Clara County. Collectively, this 13.6-acre property is currently used as an orchard, and this use would be terminated upon Project construction; however, 150 of the 3,000 existing trees would remain along Monterey Road.

As part of the Project, the proposed Grove HVDC Terminal would permanently remove the affected acreage from agricultural production. Orchard crops are one of the top 10 crops produced in the county. In 2023, the county had over 2,428 acres of orchard crops primarily producing cherries, walnuts, and apricots (Santa Clara County 2023). The conversion of 13.6 acres represents approximately 0.5 percent of the total orchard crop acreage currently in production in the county. Although the loss of approximately 13.6 acres of Prime Farmland represents less than 0.01 percent of the Prime Farmland available for agricultural production in Santa Clara County, when viewed in context of current farmland conversion trends, the loss of any Prime Farmland is significant.

As described in Section 3.2.1.1, farmland in the county has declined by 45 percent over the last 20 years and fertile lands remain at risk for urban development. Additionally, local agriculture is a vital economic resource in Santa Clara County and orchard lands have heritage value in this context. Therefore, the conversion of such farmland would be considered a potentially significant impact.

To compensate for the loss of Prime Farmland associated with the Project's development of the proposed Grove HVDC Terminal, LSPGC would implement LSPGC Mitigation Measure 3.2-1: Conservation and Restoration of Farmland, which would require LSPGC to provide a financial

donation or purchase an agricultural conservation easement to protect and restore farmland in Santa Clara County. With LSPGC's implementation of LSPGC Mitigation Measure 3.2-1, impacts related to this criterion would be mitigated to **less than significant**.

Mitigation: Implementation LSPGC Mitigation Measure 3.2-1.

LSPGC Mitigation Measure 3.2-1: Conservation and Restoration of Farmland

LSPGC shall provide a financial donation or purchase an agricultural conservation easement to protect and restore farmland in Santa Clara County, subject to review and approval of the Santa Clara County Agricultural Commissioner and Santa Clara County Open Space Authority. The ratio of mitigation shall be equivalent to 1:1 as compensation for Project Prime Farmland removed from agricultural productivity. The conservation mitigation shall be paid to the Santa Clara Valley Open Space Authority or other appropriate agricultural land trust operating in Santa Clara County for the purposes of reclaiming, restoring, and/or conserving Prime Farmland in Santa Clara County.

Significance after Mitigation: The implementation of LSPGC Mitigation Measure 3.2-1 would compensate for the loss of Prime Farmland by supporting protection and/or restoration of land classified as Prime Farmland within Santa Clara County such that no net loss of such farmland would occur. Consequently, with implementation of the mitigation measure, the impact would be reduced to less-than-significant levels.

Criterion b) Whether the Project would conflict with existing zoning for agricultural use or a Williamson Act contract.

The Project would not conflict with existing zoning for agricultural use or a Williamson Act contract. (*No Impact*)

During Project construction of the proposed Grove HVDC Terminal, 13.6 acres of agricultural land would be converted to non-agricultural use (see Chapter 2). As discussed under Impact 3.20-1, the proposed Grove HVDC Terminal would require Prime Farmland conversion to non-agricultural use. However, in addition to this Prime Farmland classification, other agricultural zoning designations exist in the study area. Several acres of the Project area are zoned as agricultural, which would be converted to non-agricultural use for construction, and these changes would hold true for the Project's operation and maintenance phase. See Figures 3.2-2a and 3.2-2b for a map of the agricultural zones within and around the Project. Specifically, the land that the existing PG&E Metcalf Substation and proposed Grove HVDC Terminal would occupy is designated as Santa Clara County Agricultural Preserve. However, the proposed uses of the Project are consistent with the existing zoning code, including the Santa Clara County Zoning Ordinance, Santa Clara County Agricultural Preserve, and the City of San José Zoning Code. Under these zoning codes, utility infrastructure is an exempt use on agricultural land. Therefore, no impacts would occur with respect to existing zoning designations.

Furthermore, adjacent to the proposed transmission line corridor, there is an existing agricultural land zoning designation. The Project would not impact these lands as they would remain in agricultural use. The Project area does not contain any parcels subject to Williamson Act contracts.

The nearest Williamson Act-contracted land is approximately 0.25 mile northeast of the existing PG&E Metcalf Substation, as discussed in Section 3.2.1, *Environmental Setting*. The Project would not conflict with the existing Williamson Act designation of this parcel. The closest component of the Project to this Williamson Act-contracted land is the proposed PG&E water line connecting to the existing PG&E Metcalf Substation. This water line would not conflict with any neighboring agricultural uses or Williamson Act agreements. Therefore, there would be no impact related to conflicts with a Williamson Act contract.

Criterion c) Whether the Project would conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]).

The Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]). (*No Impact*)

No forestry resources exist within the Project area. No portion of the Project proposed transmission lines would cross or be constructed, operated, and maintained on lands zoned or otherwise designated as timberland or forest land. Trees in the study area, including woodland and orchard, are not considered forestry resources as defined by Public Resources Code Section 12220(g). Therefore, the Project would have no impact on forestry resources during construction and operation and maintenance.

Criterion d) Whether the Project would result in the loss of forest land or conversion of forest land to non-forest use.

The Project would not result in the loss of forest land or conversion of forest land to non-forest use. (*No Impact*)

Project construction would require the removal of approximately 12.8 acres of orchard trees and two (non-native) Peruvian pepper trees to facilitate development of the proposed Grove HVDC Terminal. It is likely that approximately 30 additional trees would need to be trimmed or removed for the proposed Coyote Creek Road and Coyote Creek trail realignment, to construct the proposed transmission lines within existing roads, and to conduct horizontal directional drilling (HDD) under Coyote Creek for the proposed Metcalf to Grove 500 kV Transmission Line. Tree removal is expected to comply with the Santa Clara County Tree Preservation and Removal Ordinance. These trees are not on forest land, so the Project would not result in the loss of forest land or conversion to non-forest use. Therefore, due to its proposed location, which is primarily on urban and previously disturbed land, the Project would have no impact on forest land or forest use.

Criterion e) Whether the Project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of agricultural land to non-agricultural use or conversion of forest land to non-forest use.

The Project area does not contain any designated forestry resources and would not involve any changes to the current environment that could lead to the conversion of forest land into non-forest use. Therefore, there would be no impact with respect to Criterion e) for forestry resources. (*No Impact*)

Impact 3.2-2: The Project would involve other changes in the existing environment which could result in conversion of agricultural land to non-agricultural use (*Less than Significant with Mitigation*)

As discussed under Impact 3.2-1, the Project would involve the conversion of agricultural land to non-agricultural use. As discussed under Criterion a) and Criterion b), portions of the Project, including parcels associated with the proposed Grove HVDC Terminal, would involve conversion of Prime Farmland to non-agricultural use. The implementation of Mitigation Measure 3.2-1 would compensate for the loss of agricultural land by supporting protection and/or restoration of land classified as Prime Farmland within Santa Clara County such that no net loss of such farmland would occur. Consequently, with LSPGC's implementation of Mitigation Measure 3.2-1, the impact associated with changes in the existing environment that could result in conversion of agricultural land to non-agricultural use would be reduced to **less-than-significant** levels.

> **Mitigation:** Implement Mitigation Measure 3.2-1.
>
> **Significance after Mitigation:** Implementation of Mitigation Measure 3.2-1 would reduce potential impacts associated with changes in the existing environment which could result in conversion of agricultural land to non-agricultural use to less than significant.

3.2.6 Cumulative Effects Analysis

As discussed in Section 3.2.5, *Direct and Indirect Effects*, most of the Project components are not proposed on agricultural or forest lands. However, construction and operation and maintenance of the proposed Grove HVDC Terminal would convert Prime Farmland to non-agricultural use. Although the scale of this conversion is small compared to the greater context of agricultural land conversion in Santa Clara County, when taken into consideration with other similar projects in the area, the following analysis is presented.

3.2.6.1 Criteria a) and e)

The Project would not involve any alterations to the current environment that could lead to the conversion of forest land into non-forest use. As such, it would not contribute to any potential cumulative impacts associated with forestry resources under criterion e), and there would be no cumulative impact. (*No Impact*)

Impact C.3.2-1: The Project could cause a cumulatively considerable contribution to a significant cumulative effect due to conversion of Farmland to non-agricultural use, and could cause or contribute to a significant cumulative effect due to changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. (*Less than Significant with Mitigation*)

The geographic context for potential cumulative impacts related to the conversion of Farmland to non-agricultural use consists of Farmland mapped as Prime Farmland by the FMMP because this is the only mapping category that would be affected by the Project. The temporal context for cumulative effects analysis would begin at construction and be considered permanent (or ongoing) as the Project would operate in perpetuity and not be decommissioned. The Project would result in a permanent conversion of farmland. 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 multiple projects is the change in the physical environment that results from the incremental impact of the proposed project when added to other closely-related past, present, and reasonably foreseeable probable future projects. As discussed in Section 3.2.1, urban development in Santa Clara County has placed great pressure on the region's farmland resulting in a 45 percent decline in Prime Farmlands in the county over the last 20 years.

As analyzed in the context of Impact 3.2-1, the Project would have a potentially significant impact related to conversion of Prime Farmland to non-agricultural use. The Project's proposed Grove HVDC Terminal would be located on a 13.6-acre property of Prime Farmland, which would be permanently converted to non-agricultural use. This conversion represents less than 0.01 percent of the Prime Farmland available for agricultural production in Santa Clara County. However, when viewed in the context of farmland conversion the county's farmland conversion trends, the cumulative loss of farmland is considered significant. Collectively, the incremental impacts of the Project when combined with the incremental impacts of the past, present, and reasonably foreseeable future projects would result in a significant cumulative impact related to the conversion of farmland to non-agricultural use.

The Project's incremental contribution would be reduced to a less than significant level through implementation of LSPGC Mitigation Measure 3.2-1. The mitigation would compensate for the impact at a 1:1 ratio via payment to the Santa Clara Valley Open Space Authority or other appropriate agricultural land trust operating in the county for the purposes of reclaiming, restoring, and/or conserving Prime Farmland in Santa Clara County. As mitigated, the Project's incremental contribution to the significant cumulative effect would not be cumulatively considerable, because any impact remaining after implementation of the conservation and restoration funded by the 1:1 offset required by the measure would be minor. For these reasons, potential cumulative impacts related to these criteria would be reduced to **less than significant**.

Mitigation: Implement LSPGC Mitigation Measure 3.2-1.

Significance after Mitigation: The implementation of LSPGC Mitigation Measure 3.2-1 would reduce potential cumulative impacts related these criteria to less than significant.

3.2.6.2 Criteria b), c), and d)

As discussed in Section 3.2.5, *Direct and Indirect Effects*, the Project would not: (1) conflict with existing zoning for agriculture use, or a Williamson Act contract; (2) conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]); or (3) result in the loss of forest land or conversion of forest land to non-forest use. There would be no impact attributable to the Project under criteria b), c), or d), and therefore, the Project would not contribute to any potential cumulative impacts associated with these criteria. (No Impact)

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3.3 Air Quality

This section evaluates the impacts of the Project on air quality. For purposes of the evaluation of potential air quality impacts, the *study area* is defined as the footprint of all components of the Project, including all areas of temporary and/or permanent ground disturbance and the surrounding air basin within which the Project would be constructed and operated, as described in this section. The information and analysis presented herein are based in part on the Project's estimated air pollutant emissions, which were calculated on behalf of LSPGC, as presented in **Appendix B**, *Air Quality, Greenhouse Gas, and Energy Calculation and Modeling Files*. The air pollutant emissions and calculations were peer-reviewed by the CPUC's independent environmental consultant, Environmental Science Associates, and were found to be adequate to include in this analysis with modifications to the average daily construction emissions to account for workdays instead of calendar days (see Appendix B page 1).

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to air quality.

3.3.1 Environmental Setting

The Project area is located within the jurisdictions of the city of San José and unincorporated Santa Clara County, in the San Francisco Bay Area Air Basin (Bay Area). The Project area's proximity to both the Pacific Ocean and San Francisco Bay has a moderating influence on the climate. The surrounding terrain greatly influences winds in the Santa Clara Valley, resulting in a prevailing wind that follows along the valley's northwest-southwest axis. The Bay Area Air Quality Management District (BAAQMD) is the regional air quality agency for the Bay Area. The Bay Area encompasses the nine-county region including all of Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin, and Napa counties and the southern portions of Solano and Sonoma counties.

As indicated in Chapter 2, *Project Description*, the Project includes construction and operation of two new high-voltage direct current (HVDC) terminals, two new underground transmission lines, one overhead transmission tie line, modifications at the existing PG&E Metcalf Substation, and expansion of and modifications at the existing PG&E San Jose B Substation. Specifically, the Project's primary components are as follows:

- Skyline HVDC Terminal.
- Grove HVDC Terminal.
- Grove to Skyline 320-kilovolt (kV) direct current (DC) underground transmission line (Grove to Skyline 320 kV Transmission Line).
- Metcalf to Grove 500 kV alternating current (AC) underground transmission line (Metcalf to Grove 500 kV Transmission Line).
- Skyline to San Jose B 230 kV AC overhead transmission tie line (Skyline to San Jose B 230 kV Transmission Tie Line).

- Modifications to the existing PG&E Metcalf Substation.
- Expansion of and modifications at the existing PG&E San Jose B Substation.

3.3.1.1 Climate and Meteorology

Climate and meteorological conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants.

The climate of the Bay Area is determined largely by a high-pressure system that is often present over the eastern Pacific Ocean off the West Coast of North America. During winter, the Pacific high-pressure system shifts southward, allowing an increased number of storm systems to pass through the region. During summer and early fall, when fewer storms pass through the region, emissions generated in the Bay Area accumulate as a result of the more stable conditions. The combination of abundant sunshine and the restraining influences of topography and subsidence inversions creates conditions conducive to the formation of photochemical pollutants, such as ground-level ozone and secondary particulates, including nitrates and sulfates.

3.3.1.1 Criteria Air Pollutants

The U.S. Environmental Protection Agency (USEPA) has identified criteria air pollutants and has set national ambient air quality standards (NAAQS) for widespread pollutants from numerous and diverse sources that pose a threat to public health and welfare. USEPA has set NAAQS for seven principal pollutants, which are called "criteria" pollutants: carbon monoxide (CO), lead, nitrogen dioxide (NO_2), ozone, particulate matter less than or equal to 10 microns in diameter (PM_{10}), particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$), and sulfur dioxide (SO_2). The State of California has established California ambient air quality standards (CAAQS) for these criteria pollutants, as well as ambient air quality standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

The following discussion describes the characteristics, sources, and health effects of the types of criteria pollutants that would be generated by the Project.

Nitrogen Dioxide

NO_2 is a reddish-brown gas that is a byproduct of combustion processes and is an air quality 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 *oxides of nitrogen* (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 takes 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 (CARB 2025a).

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; rather, it is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving volatile organic compounds (VOC) and NO_X. VOC is also referred to by the California Air Resources Board (CARB) as reactive organic gases (ROG). ROG and NO_X are known as precursor compounds for ozone. Generally, for significant ozone production to occur, ozone precursors must be present in a stable atmosphere with strong sunlight for approximately 3 hours.

Ozone is a regional air pollutant because it is not emitted directly by sources but instead is formed downwind of sources of VOC and NO_X under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when conditions such as long sunny days and regional subsidence inversions are conducive to the formation and accumulation of secondary photochemical compounds (CARB 2025b).

Carbon Monoxide

CO is an odorless, colorless, and nonreactive pollutant that is a product of incomplete combustion and is associated mostly with motor vehicle traffic. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground-level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the blood's oxygen-carrying capacity, which in turn reduces the amount of oxygen that reaches the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia (CARB 2025c).

Particulate Matter

Particulate matter is a class of air pollutants that consists of heterogeneous solid and liquid airborne particles from human-made and natural sources. Motor vehicles generate about half of the air basin's particulates through tailpipe emissions as well as brake pads and tire wear. Wood burning in fireplaces and stoves, operations at industrial facilities, and ground-disturbing activities such as construction are other sources of fine particulates (CARB 2025d).

Large dust particles (diameter greater than 10 microns) settle out rapidly and are easily filtered by human breathing passages. These particles are also referred to as "fugitive dust," which is dust and particulate matter commonly generated from construction, agricultural, and industrial activities (USEPA 2022). This large dust is of more concern as a soiling nuisance rather than as a health hazard. However, PM_{10} and $PM_{2.5}$ represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. According to CARB, studies in the United States and elsewhere "have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks," and studies of children's health in California have demonstrated that particle pollution "may significantly reduce lung function growth in children" (CARB 2018).

$PM_{2.5}$ is of particular concern because epidemiological studies have demonstrated that people who live near freeways and high-traffic roadways have poorer health outcomes, including

increased asthma symptoms and respiratory infections, and decreased pulmonary function and lung development in children (SFDPH 2008).

Sulfur Dioxide

SO_2 is a colorless, acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO_2 has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease (BAAQMD 2017a).

3.3.1.2 Toxic Air Contaminants

In addition to criteria air pollutants, some sources also emit toxic air contaminants (TACs), which are a diverse group of air pollutants that may cause chronic (long-duration) and acute (severe but short-term) adverse effects on human health, including carcinogenic effects. Human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Thus, individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

Unlike criteria air pollutants, TACs are not subject to ambient air quality standards; rather, they are regulated by BAAQMD using a risk-based approach to determine which sources and which pollutants to control, as well as the degree of control. A health risk assessment (HRA) is an analysis that estimates human health exposure to toxic substances, and when considered together with information regarding the toxic potency of the substances, an HRA provides quantitative estimates of health risks.[1] Health effects from carcinogenic TACs are usually described in terms of increased cancer risk.

Both BAAQMD and CARB operate TAC monitoring networks in the Bay Area. These stations measure concentrations of 10–15 TACs, depending on the specific station. The TACs selected for monitoring are those that traditionally have been found in the highest concentrations in ambient air and therefore tend to produce the most significant risk.

Motor vehicles are responsible for a large share of TAC-related air pollution, especially in California. Vehicle tailpipe emissions contain diverse forms of particles and gases, and vehicles also contribute to particulates by generating road dust and tire wear. Epidemiologic studies have demonstrated that people living close to freeways or busy roadways have poorer health outcomes, including increased asthma symptoms and respiratory infections, and decreased pulmonary function and poor lung development in children.

Diesel Particulate Matter

Diesel engines emit a complex mixture of pollutants, including very small carbon particles, or "soot" coated with numerous organic compounds, known as diesel particulate matter (DPM).

[1] In general, a health risk assessment is required if BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. The applicant is then required to prepare a health risk assessment for the source in question. Such an assessment generally evaluates chronic, long-term effects, estimating the increased risk of cancer as a result of exposure to one or more TACs.

CARB identified DPM as a TAC in 1998, based primarily on evidence demonstrating cancer effects in humans (CARB 1998). The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other TAC routinely measured in the region. In addition to "soot" coated with numerous organic compounds, DPM also contains more than 40 cancer-causing substances, most of which are readily adsorbed onto the soot particles. CARB as well as other agencies, such as the World Health Organization, the National Toxicology Program of the U.S. Department of Health and Human Services, USEPA, and the National Institute of Occupational Safety and Health have concluded that exposure to diesel exhaust can cause cancer.

Diesel engine emissions are believed to be responsible for about 70 percent of California's estimated known cancer risk attributable to TACs. In addition, DPM composes about 8 percent of outdoor $PM_{2.5}$, which is a known health hazard. As a significant fraction of $PM_{2.5}$, DPM contributes to numerous health impacts that have been attributed to particulate matter (PM) exposure, including increased hospital admissions, particularly for heart disease, but also for respiratory illnesses, and even premature death. CARB estimates that DPM contributes to approximately 1,400 premature deaths from cardiovascular disease in California each year. Additionally, exposure to diesel exhaust may contribute to the onset of new allergies; a clinical study of human subjects has shown that diesel exhaust particles, in combination with potential allergens, may actually be able to produce new allergies that did not exist previously (CARB 2025e).

Based on estimated ambient statewide DPM levels in 2012 (the most recent year for which data are available), the estimated current cancer risk is 520 new cases of cancer projected to occur per million residents exposed statewide.

Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) is a type of silicate mineral that occurs as asbestiform fibers having high tensile strength, flexibility, and heat and chemical resistance. Asbestos naturally occurs in ultramafic rock, which is present in the Project vicinity. The Project area is in a region with known encounters of NOA (DOC 2024). Portions of the Project's Grove to Skyline 320 kV Transmission Line on Monterey Road would overlap areas potentially containing NOA. When rock containing asbestos is broken, asbestos fibers may be released and become airborne, which presents a significant risk to human health when inhaled.

3.3.1.3 Existing Air Quality

BAAQMD is the regional agency with jurisdiction for regulating air quality within the Bay Area's nine counties. The region's air quality monitoring network provides information on ambient concentrations of criteria air pollutants at various locations in the Bay Area for comparison to the NAAQS and CAAQS. Compliance with the standards is established on a regional basis, as opposed to the city or local level. In the Bay Area, compliance is demonstrated by ongoing measurements of pollutant concentrations at more than 30 air quality monitoring stations operated by the air district in all nine Bay Area counties. An exceedance of an ambient air quality standard at any one of the stations counts as a regional exceedance.

The air quality in the Project area is best represented by data from the San José Jackson Street and San Martin air quality monitoring stations, as they are the closest stations to the northern and

southern portions of the Project area, respectively. The San José Jackson Street station provides air quality monitoring data on pollutants including ozone, $PM_{2.5}$, PM_{10}, and NO_2, while the San Martin station only monitors ozone. These stations offer the most relevant data for assessing air quality impacts in the Project vicinity, and their monitoring results are presented below.

Table 3.3-1 presents a 3-year summary for the period 2021–2023 of the highest criteria air pollutant concentrations collected at the San José Jackson Street air quality monitoring station. This station, operated and maintained by BAAQMD, is located at 158 E. Jackson Street, approximately 1 mile north of the existing PG&E San Jose B Substation and the proposed Skyline HVDC terminal site. Table 3.3-1 also compares measured pollutant concentrations with the most stringent applicable ambient air quality standards (State or federal).

TABLE 3.3-1
SUMMARY OF AIR QUALITY MONITORING DATA (2021–2023)—SAN JOSÉ JACKSON STREET

Pollutant	Applicable Standard	Number of Days Standards Were Exceeded and Maximum Concentrations Measured[a]		
		2021	2022	2023
Ozone				
Maximum 1-Hour Concentration (ppm)	0.09 ppm[b]	**0.098**	0.090	0.087
Days 1-Hour State Standard Exceeded		3	0	0
Maximum 8-Hour Concentration (ppm)	0.070 ppm[b,c]	**0.084**	**0.074**	**0.068**
Days 8-Hour State/National Standard Exceeded		4	1	0
Particulate Matter (PM_{10})				
Maximum 24-Hour Concentration (µg/m^3)	50 µg/m^{3c}	42.8	41.1	-
Days 24-Hour National Standard Exceeded		0	0	-
State Annual Average (µg/m^3)	20 µg/m^{3b}	20	21	-
Days 24-Hour Standard Exceeded		0	0	-
Fine Particulate Matter ($PM_{2.5}$)				
Maximum 24-Hour Concentration (µg/m^3)	35 µg/m^{3c}	**38.1**	**36.2**	**49.0**
Days 24-Hour National Standard Exceeded		1	2	1
State Annual Average (µg/m^3)	12 µg/m^{3b}	8.9	10.1	8.2
Days 24-Hour Standard Exceeded		0	0	0
Nitrogen Dioxide (NO_2)				
Maximum 1-Hour Concentration (ppm)	0.1 ppm[c]	0.047	0.046	0.058
Days 1-Hour National Standard Exceeded		0	0	0

NOTES: - = data not available; µg/m^3 = micrograms per cubic meter; ppm = parts per million. **Bold** values exceed an applicable standard.

a. Number of days exceeded is for all days in a given year.
b. State standard, not to be exceeded.
c. National standard, not to be exceeded.

SOURCE: CARB 2025f.

As shown in Table 3.3-1, the 1-hour ozone State standard was exceeded during the 3-year study period three times in 2021. There were numerous exceedances of the 8-hour ozone State and national standards between 2021 and 2023. The $PM_{2.5}$ national standards were also exceeded on several days between 2021 and 2023. No exceedances were reported for PM_{10} or NO_2.

Table 3.3-2 presents a 3-year summary for the period 2021–2023 of the highest annual ozone concentrations collected at the San Martin air quality monitoring station. Operated and maintained by BAAQMD, this station is located at 13030 Murphy Avenue approximately 12 miles south of the existing PG&E Metcalf Substation and proposed Grove HVDC Terminal site. Table 3.3-2 also compares measured pollutant concentrations with the most stringent applicable ambient air quality standards (State or federal).

TABLE 3.3-2
SUMMARY OF AIR QUALITY MONITORING DATA (2021–2023)—SAN MARTIN

Pollutant	Applicable Standard	Number of Days Standards Were Exceeded and Maximum Concentrations Measured[a]		
		2021	2022	2023
Ozone				
Maximum 1-Hour Concentration (ppm)	0.09 ppm[b]	0.067	0.054	0.054
Days 1-Hour State Standard Exceeded		0	0	0
Maximum 8-Hour Concentration (ppm)	0.070 ppm[b,c]	0.046	0.041	0.045
Days 8-Hour State/National Standard Exceeded		0	0	0

NOTES: - = data not available; ppm = parts per million. **Bold** values exceed an applicable standard.
a. Number of days exceeded is for all days in a given year.
b. State standard, not to be exceeded.
c. National standard, not to be exceeded.
SOURCES: CARB 2025f

3.3.1.4 Sensitive Receptors

Air quality does not affect every individual in the population in the same way. Some groups are more sensitive than others to air pollution. Reasons for greater sensitivity can include existing health problems, duration of exposure to air pollutants, or certain people's increased susceptibility to pollution-related health problems because of factors such as age. Population subgroups sensitive to the health effects of air pollutants include elderly people and children; population subgroups with higher rates of respiratory disease, such as asthma and chronic obstructive pulmonary disease; and populations with other environmental or occupational health exposures (e.g., to poor indoor air quality) that affect cardiovascular or respiratory diseases. The factors responsible for variations in exposure are also often similar to factors associated with greater susceptibility to air quality health effects. For example, lower-income residents may be more likely to live in substandard housing and to live near industrial or roadway sources of pollution.

BAAQMD defines *sensitive receptors* as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, elderly people, and people with preexisting serious health problems. Examples include land uses such as schools, hospitals, and residential areas. Land uses such as schools, day care centers, hospitals,

and nursing and convalescent homes are considered sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress. Residential uses are considered sensitive because these individuals could be present there and are often at home for extended periods of time, so they can be exposed to pollutants in the area for long periods.

Based on the locations of sensitive receptors relative to the different Project components and the intensity and duration of construction activities associated with these components, construction activities at the proposed Skyline and Grove HVDC Terminals were identified as Project components that could pose potential health risks to existing sensitive receptors in its vicinity. The Fountain Plaza and Iamesi Village Apartments are the nearest sensitive receptors to the proposed Skyline HVDC Terminal, located 200 feet east of the terminal site along Ryland Street and Bassett Street, respectively. Sensitive receptors near the proposed Grove HVDC Terminal site are residences approximately 50 feet to 200 feet west and northwest of the Project site off Monterey Road.

3.3.2 Regulatory Setting

3.3.2.1 Federal

Clean Air Act and National Ambient Air Quality Standards

The 1970 Clean Air Act (CAA) (most recently amended in 1990) requires each regional planning or air pollution control agency to prepare a regional air quality plan outlining the measures through which both stationary and mobile sources of pollutants will be controlled to achieve all ambient air quality standards by the deadlines specified in the CAA. These ambient air quality standards are intended to protect the public health and welfare, and they specify the concentration of pollutants (with an adequate margin of safety) to which the public can be exposed without adverse health effects. They are designed to protect the segments of the public most susceptible to respiratory distress: asthmatics, the very young, the elderly, people weakened from other illness or disease, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to criteria air pollutant levels that somewhat exceed ambient air quality standards before adverse health effects are observed. **Table 3.3-3** identifies the current NAAQS and CAAQS.

The NAAQS and CAAQS have been set at levels considered safe to protect the public, including the health of sensitive populations, with a margin of safety; and to protect public welfare, including protecting against decreased visibility and damage to animals, crops, vegetation, and buildings. As explained by CARB, "An air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without any harmful effects on people or the environment" (CARB 2025g). That is, if a region is in compliance with the ambient air quality standards, its regional air quality can be considered protective of public health. The NAAQS are statutorily required to be set by USEPA at levels that are requisite to protect the public health. Therefore, the closer a region is to attaining a particular ambient air quality standard, the lower the human health impact is from that pollutant. See Section 3.3.1.1,

Criteria Air Pollutants, above, for a brief description of the health effects of exposure to criteria air pollutants.

TABLE 3.3-3
STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR THE SAN FRANCISCO BAY AREA AIR BASIN

Pollutant	Averaging Time	State (CAAQS[a])		Federal (NAAQS[b])	
		Standard	Attainment Status	Standard	Attainment Status
Ozone	1 hour	0.09 ppm	**N**	--	See Note c
	8 hours	0.070 ppm	**N**	0.070 ppm[d]	**N**/Marginal
Carbon Monoxide (CO)	1 hour	20 ppm	A	35 ppm	A
	8 hours	9.0 ppm	A	9 ppm	A
Nitrogen Dioxide (NO_2)	1 hour	0.18 ppm	A	0.10 ppm	U
	Annual	0.030 ppm	--	0.053 ppm	A
Sulfur Dioxide (SO_2)	1 hour	0.25 ppm	A	0.075 ppm	A
	24 hours	0.04 ppm	A	0.14 ppm	A
	Annual	--	--	0.030 ppm	A
Particulate Matter (PM_{10})	24 hours	50 µg/m^3	**N**	150 µg/m^3	U
	Annual[e]	20 µg/m^3 [f]	**N**	--	--
Fine Particulate Matter ($PM_{2.5}$)	24 hours	NA	--	35 µg/m^3	**N**
	Annual	12 µg/m^3	**N**	9.0 µg/m^3[h]	U/A
Sulfates	24 hours	25 µg/m^3	A	--	--
Lead	30 days	1.5 µg/m^3	A	--	--
	Calendar quarter	--	--	1.5 µg/m^3	A
	Rolling 3-month average	--	--	0.15 µg/m^3	U
Hydrogen Sulfide	1 hour	0.03 ppm	U	--	--
Visibility-Reducing Particles	8 hours	See Note g	U	--	--

NOTES:

A = Attainment; **N** = Non-attainment; U = Unclassified; -- = Not Applicable, no applicable standard; µg/m^3 = micrograms per cubic meter; ppm = parts per million.

a. CAAQS = California ambient air quality standards. CAAQS for ozone, CO (except Lake Tahoe), SO_2 (1-hour and 24-hour), NO_2, PM, and visibility-reducing particles are values that are not to be exceeded. All other State standards shown are values not to be equaled or exceeded.
b. NAAQS = national ambient air quality standards. NAAQS, other than ozone and particulates, and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The 8-hour ozone standard is attained when the 3-year average of the fourth highest daily concentration is 0.08 ppm or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than the standard. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of the 98th percentile is less than the standard.
c. The USEPA revoked the national 1-hour ozone standard on June 15, 2005.
d. This federal 8-hour ozone standard was approved by USEPA in October 2015 and became effective on December 28, 2015.
e. Standard is annual geometric mean.
f. In June 2002, the California Air Resources Board established new annual standards for $PM_{2.5}$ and PM_{10}.
g. Statewide visibility-reducing particle standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
h. Effective May 6, 2024, the annual average NAAQS for $PM_{2.5}$ was lowered from 12.0 to 9.0 µg/m^3. USEPA expects to finalize the attainment designations for the lower standard by February 2026. The attainment/unclassified designation shown above is with respect to the old standard.

SOURCE:BAAQMD 2017b

Pursuant to the 1990 federal CAA Amendments, USEPA classifies air basins (or portions thereof) as "attainment," "nonattainment," or "unclassified" for each criteria air pollutant, based on whether the national standards have been achieved. As shown in Table 3.3-3, at the federal level, the Bay Area is designated as a nonattainment area for the 8-hour ozone standard and the 24-hour $PM_{2.5}$ standard. The Bay Area is in attainment for all other federal ambient air quality standards. The State-level attainment status of the Bay Area is discussed further below.

The federal CAA Amendments require each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The federal CAA Amendments added a requirement for states containing areas that violate the national standards to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is a living document that is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. USEPA reviews SIPs to determine whether they conform to the mandates of the federal CAA Amendments and will achieve air quality goals when implemented.

3.3.2.2 State

California Clean Air Act and Ambient Air Quality Standards

Although the federal CAA established the NAAQS, individual states retain the option to adopt more stringent standards and to include other pollution sources. California had already established its own air quality standards when the federal standards were established, and because of California's unique meteorological challenges, there are differences between the State and national ambient air quality standards. The current CAAQS are shown in Table 3.3-3. Most of the California ambient standards are at least as protective as the corresponding national ambient standards. However, in 2025 the US Congress attempted to rescind California's ability to set stricter emissions standards through the Congressional Review Act (CRA). This action was made in contravention of the Senate Parliamentarian's conclusion the action was not allowed under the CRA. Consequently, on May 22, 2025, the California Governor and Attorney General indicated that California would be filing a lawsuit challenging these actions.

The California CAA (California Health and Safety Code Section 39600 et seq.), like its federal counterpart, calls for designation of areas as "attainment," "nonattainment," or "unclassified" with respect to the ambient air quality standards. The Project area is currently designated as nonattainment for the 1-hour and 8-hour ozone, 24-hour and annual PM_{10}, and annual $PM_{2.5}$ standards and as attainment or unclassified with respect to the other CAAQS.

In 2003, the California Legislature enacted Senate Bill (SB) 656 (Chapter 738, Statutes of 2003), codified as Health and Safety Code Section 39614, to reduce public exposure to PM_{10} and $PM_{2.5}$. SB 656 required CARB, in consultation with local air districts, to develop and adopt by January 1, 2005, a list of the most readily available, feasible, and cost-effective control measures that CARB and the air districts could employ to reduce PM_{10} and $PM_{2.5}$ (referred to collectively as "PM"). The legislation established a process for achieving near-term reductions in PM emissions throughout California ahead of federally required deadlines for reducing $PM_{2.5}$ emissions and provided new direction on PM emissions reductions in areas not subject to federal requirements.

Measures adopted as part of SB 656 complement and support those required for federal $PM_{2.5}$ attainment plans, as well as for State ozone plans. This ensures continuing focus on PM reduction and progress toward attaining California's more health-protective standards. This list of air district control measures was adopted by CARB on November 18, 2004.

On-Road Diesel Trucks and Off-Road Diesel Equipment

In California, engines designated by USEPA as nonroad engines are known as "off-road engines" in State regulations implemented by CARB. Similar to the USEPA Nonroad Diesel Rule, the Off-Road Emissions Regulation for New Compression-Ignition Engines and Equipment applies to diesel engines such as those found in construction, general industrial, and terminal equipment. Initially adopted in 2000 and amended in 2004, the regulation establishes tier-based emission standards, test procedures, and warranty and certification requirements. For some model years and engine sizes, CARB's tier-based emission standards are more stringent than the USEPA standards.

California Air Resources Board Diesel Reduction Plan

In 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled vehicles and engines. Subsequent board regulations apply to new trucks and diesel fuel. With the new controls and fuel requirements, 60 trucks built in 2007 had the same particulate exhaust emissions, combined, as one truck built in 1988. With implementation of this regulation, the statewide diesel health risk was 80 percent lower in 2020 than in 2000. Through careful evaluation of exposure, health risks, and affirmative steps to reduce risk where necessary, CARB took the position that infill development, mixed use, higher density, transit-oriented development, and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level (CARB 2005).

California Air Resources Board In-Use Off-Road Diesel Vehicle Regulation

CARB adopted the In-Use Off-Road Diesel Vehicle Regulation in July 2007 and amended the regulation in December 2011. The regulation requires owners of off-road mobile equipment powered by diesel engines 25 horsepower or larger to meet the fleet-average or best available control technology requirements for NO_X and PM emissions by January 1 of each year. The regulation also established idling restrictions, limitations on buying and selling older off-road diesel vehicles (Tier 0), reporting requirements, and retrofit and replacement requirements. The requirements and compliance dates vary by fleet size; performance requirements for large fleets began in 2014, medium fleets in 2017, and small fleets in 2019. Requirements regarding idling, disclosure, reporting, and labeling took effect in 2008 and 2009.

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, CARB adopted the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling to reduce public exposure to DPM emissions (California Code of Regulations [CCR] Title 13, Section 2485). This airborne toxic control measure (ATCM) applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This

measure prohibits diesel-fueled commercial vehicles from idling for more than 5 minutes at any given location. The goal of this measure is to reduce public health impacts from diesel emissions.

Airborne Toxic Control Measure for Stationary Compression Ignition Engines

In 2004, CARB adopted an ATCM to reduce public exposure to emissions of DPM and criteria pollutants from stationary diesel-fueled compression ignition engines (17 CCR Section 93115). The measure applies to any person who owns or operates a stationary compression ignition engine in California with a rated brake horsepower greater than 50, or to anyone who either sells, offers for sale, leases, or purchases a stationary compression ignition engine. This measure outlines fuel and fuel additive requirements; emissions standards; recordkeeping, reporting, and monitoring requirements; and compliance schedules for compression ignition engines.

Airborne Toxic Control Measure for Naturally Occurring Asbestos

In 1986, CARB identified asbestos as a TAC and hazardous air pollutant. Subsequently, CARB adopted two ATCMs to address some of the health concerns associated with asbestos (17 CCR Sections 93105 and 93106). These measures address minimizing the placement of asbestos-containing material on unpaved surfaces and require employing work practices to minimize asbestos emissions (CARB 2025h). The following ATCMs would be implemented by LSPGC and PG&E, where applicable:

Asbestos ATCM for Surfacing Applications (adopted in 1990). This ATCM is designed to reduce public exposure to elevated levels of asbestos from the supply, use, and transport of aggregates.

Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations (adopted in 2001). This ATCM requires that best available dust mitigation measures be implemented in areas of road construction, maintenance activities, construction, grading, quarrying, and surface mining operations where naturally occurring asbestos is found or likely to be found. Specifically, the ATCM requires the following, among other things:

(1) Areas of one acre or less meeting the criteria in subsections (b)(1) or (b)(2): No person shall engage in any construction or grading operation on property where the area to be disturbed is one (1.0) acre or less unless all of the following dust mitigation measures are initiated at the start and maintained throughout the duration of the construction or grading activity:

(A) Construction vehicle speed at the work site must be limited to fifteen (15) miles per hour or less;

(B) Prior to any ground disturbance, sufficient water must be applied to the area to be disturbed to prevent visible emissions from crossing the property line;

(C) Areas to be graded or excavated must be kept adequately wetted to prevent visible emissions from crossing the property line;

(D) Storage piles must be kept adequately wetted, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile;

(E) Equipment must be washed down before moving from the property onto a paved public road; and

(F) Visible track-out on the paved public road must be cleaned using wet sweeping or a HEPA filter equipped vacuum device within twenty-four (24) hours.

(2) Areas greater than one acre meeting the criteria in subsections (b)(1) or (b)(2): No person shall engage in any construction or grading operation on property where the area to be disturbed is greater than one (1.0) acre unless:

(A) An Asbestos Dust Mitigation Plan for the operation has been:

1. Submitted to and approved by the district before the start of any construction or grading activity; and
2. The provisions of that dust mitigation plan are implemented at the beginning and maintained throughout the duration of the construction or grading activity.

The Asbestos Dust Mitigation Plan must specify dust mitigation practices that are sufficient to ensure that no equipment or operation emits dust that is visible crossing the property line, and must include one or more provisions addressing each of the following topics: track-out prevention and control measures; keeping active storage piles adequately wetted or covered with tarps; control for disturbed surface areas and storage piles that will remain inactive for more than seven (7) days; control for traffic on on-site unpaved roads, parking lots, and staging areas; control for earthmoving activities; control for off-site transport; post construction stabilization of disturbed areas, and air monitoring for asbestos (if required by the Air Pollution Control Officer).

Advanced Clean Cars Program

In January 2012, pursuant to Recommended Measures T-1 and T-4 of its greenhouse gas emissions scoping plan, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model years 2017–2025. In response to a midterm review of the standards in March 2017, CARB directed staff to begin working on post-2025 model year vehicle regulations (Advanced Clean Cars II) to research additional measures to reduce air pollution from light-duty and medium-duty vehicles. Additionally, in September 2020, Governor Gavin Newsom signed Executive Order N-79-20, which established a goal for 100 percent of new passenger cars and trucks sold in California to be zero-emission vehicles by 2035, and directed CARB to develop and propose regulations toward this goal. The primary mechanism for achieving these targets for passenger cars and light trucks is the Advanced Clean Cars II Program regulations CARB adopted on August 25, 2022. The USEPA granted the Advanced Clean Cars II waiver on December 18, 2024. However, in 2025 the U.S. Congress attempted to rescind the USEPA's waiver, in contravention of the Senate Parliamentarian's conclusion the action was not allowed under the CRA. Consequently, on May 22, 2025, the California Governor and Attorney General indicated that California would be filing a lawsuit challenging these actions.

3.3.2.3 Regional and Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to air quality that would otherwise be relevant to the Project and alternatives are described below.

Bay Area Air Quality Management District Clean Air Plan

Local air quality management districts and air pollution control districts demonstrate attainment of State air quality standards through the adoption and enforcement of attainment plans. The *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan) was adopted on April 19, 2017, by BAAQMD in cooperation with the Metropolitan Transportation Commission, the San Francisco Bay Conservation and Development Commission, and the Association of Bay Area Governments. The 2017 Clean Air Plan provides a regional strategy to improve air quality within the Bay Area and meet public health goals (BAAQMD 2017c). The control strategy described in the 2017 Clean Air Plan includes a wide range of control measures designed to reduce emissions and lower ambient concentrations of harmful pollutants, safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, and reduce greenhouse gas emissions to protect the climate.

The 2017 Clean Air Plan addresses four categories of pollutants including ground-level ozone and its key precursors: ROG and NO_X; PM, primarily $PM_{2.5}$, and precursors to secondary $PM_{2.5}$; air toxics; and greenhouse gas emissions. The control measures are categorized based on the economic sector framework including stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, and water.

BAAQMD is the regional agency with jurisdiction over the nine-county region located in the air basin. The Association of Bay Area Governments, the Metropolitan Transportation Commission, regional transportation agencies, cities and counties, and nongovernmental organizations also participate in the efforts to improve air quality, by adopting regulations and policies and implementing extensive education and public outreach programs. BAAQMD is responsible for attaining and/or maintaining the region's air quality within federal and State air quality standards. Specifically, BAAQMD monitors ambient air pollutant levels throughout the region and develops and implements strategies to attain the applicable federal and State standards. BAAQMD has permit authority over most types of stationary emission sources; it can require stationary sources to obtain permits and can impose emission limits, set fuel or material specifications, or establish operational limits to reduce air pollutant emissions. BAAQMD also regulates new or expanding stationary sources of TACs and requires air toxic control measures for many sources that emit TACs.

BAAQMD CEQA Guidelines and Thresholds of Significance

The *BAAQMD California Environmental Quality Act Air Quality Guidelines* (BAAQMD CEQA Guidelines) is an advisory document that provides lead agencies, consultants, and project proponents with procedures for assessing air quality impacts and preparing environmental review documents. The document describes the criteria that BAAQMD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for use in determining whether projects and plans would have significant adverse environmental impacts, describes methods for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts.

BAAQMD's most recent update to its CEQA Guidelines, the 2022 BAAQMD CEQA Guidelines, was adopted in April 2023 (BAAQMD 2023). These guidelines provide recommended quantitative

significance thresholds and direction on recommended analysis methods. BAAQMD states that the quantitative significance thresholds are "advisory and should be followed by local governments at their own discretion," and that lead agencies are fully within their authority to develop their own thresholds of significance. However, BAAQMD offers these thresholds for lead agencies to use to inform environmental review for development projects in the Bay Area. Lead agencies may also reference the CEQA Thresholds Options and Justification Report developed by BAAQMD staff in 2009, which is included as Appendix A to the 2022 BAAQMD CEQA Guidelines.

City of San José General Plan

The City of San José General Plan addresses air quality directly (City of San José 2024a). The General Plan sets guiding policies for minimizing impacts on resources and ensuring that the City of San José can maintain the infrastructure and services necessary to sustain its economy and quality of life. The following policies directly relate to air quality and are applicable to the Project:

> ***Policy MS-10.1*:** Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.
>
> ***Policy MS-10.2*:** Consider the cumulative air quality impacts from proposed developments for proposed land use designation changes and new development, consistent with the region's Clean Air Plan and State law.
>
> ***Policy MS-10.4*:** Encourage effective regulation of mobile and stationary sources of air pollution, both inside and outside of San José. In particular, support Federal and State regulations to improve automobile emission controls.
>
> ***Policy MS-10.7*:** Encourage regional and statewide air pollutant emission reduction through energy conservation to improve air quality.
>
> ***Policy MS-11.2*:** For projects that emit toxic air contaminants, require project proponents to prepare health risk assessments in accordance with BAAQMD-recommended procedures as part of environmental review and employ effective mitigation to reduce possible health risks to a less than significant level. Alternatively, require new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance from residential areas and other sensitive receptors.
>
> ***Policy MS-11.3*:** Review projects generating significant heavy duty truck traffic to designate truck routes that minimize exposure of sensitive receptors to TACs and particulate matter.
>
> ***Policy MS-11.8*:** For new projects that generate truck traffic, require signage which reminds drivers that the State truck idling law limits truck idling to five minutes.
>
> ***Policy MS-13.1*:** Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum,

conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

***Policy MS-13.2*:** Construction and/or demolition projects that have the potential to disturb asbestos (from soil or building material) shall comply with all the requirements of the California Air Resources Board's air toxics control measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.

***Policy MS-13.4*:** Adopt and periodically update dust, particulate, and exhaust control standard measures for demolition and grading activities to include on project plans as conditions of approval based upon construction mitigation measures in the BAAQMD CEQA Guidelines.

Santa Clara County General Plan

The Santa Clara County General Plan addresses air quality in Section G of the Health Element (Santa Clara County 2015). The following policies directly relate to air quality and are applicable to the Project:

***Policy HE-G.1: Air quality environmental review*.** Continue to utilize and comply with the Air District's project- and plan-level thresholds of significance for air pollutants and greenhouse gas emissions.

***Policy HE-G.2: Off-road sources*.** Encourage mobile source emission reduction from off-road equipment such as construction, farming, lawn and garden, and recreational vehicles by retrofitting, retiring and replacing equipment and by using alternate fuel vehicles.

***Policy HE-G.4: Coordination with regional agencies*.** Coordinate with the Air District to promote and implement stationary and area source emission measures.

***Policy HE-G.7: Sensitive receptor uses*.** Promote measures to protect sensitive receptor uses, such as residential areas, schools, day care centers, recreational playfields and trails, and medical facilities by locating uses away from major roadways and stationary area sources of pollution, where possible, or incorporating feasible, effective mitigation measures.

***Policy HE-G.12: Energy technologies*.** Support regional and local initiatives that promote integrated building systems, distributed generation, demand response programs, smart grid infrastructure, energy storage and backup, and electric transportation infrastructure.

3.3.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed by LSPGC and PG&E to reduce Project impacts. Each utility company will be responsible for implementing its respective measures for its portion of the Project.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at

a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Chapter 2, Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

Refer to Project Description Table 2-7, *Construction Equipment and Workforce*, for a detailed accounting of the Project components that would be under the control of PG&E.

3.3.3.1 Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measures (APMs) to reduce potential impacts on air quality. The analysis assumes that the following APMs would be implemented by LSPGC (referred to as LS Power in the APMs) as part of its work for the Project.

- **APM AQ-1: Construction Fleet Minimum Requirements and Tracking.** LS Power shall ensure that at least 75 percent of equipment horsepower hours related to off-road construction equipment include Tier 4 interim or Tier 4 final emissions controls for all construction locations with the exception of the Grove and Skyline terminals. Due to the close proximity of homes at these locations, LS Power shall ensure that 100 percent of all off-road construction is Tier 4 interim or Final (LSPGC 2025). An initial listing that identifies each off-road unit's certified tier specification to be operated on the Proposed Project shall be submitted to the CPUC for review before the start of construction activities. Construction activities shall not begin until the equipment listing has been submitted to the CPUC.

  As LS Power requires new or replacement construction equipment on the Proposed Project, LS Power shall document verification of the certified engine tier before their use on Proposed Project sites. Before the start of construction, LS Power shall develop a diesel-powered equipment-use hours tracking tool and procedure. The tracking tool shall be utilized by LS Power to keep track of the certified engine tier and daily equipment use hours of all off-road diesel-powered equipment. If all diesel-powered equipment is Tier 4 certified, the tracking tool is not required. The tracking tool shall be maintained by LS Power, and tracking updates shall be submitted to the CPUC on a monthly basis to track the Proposed Project's compliance. The updated tracking tool shall be submitted to the CPUC no later than the tenth day of the following month.

- **APM AQ-2: Dust Control BMPs.** LS Power shall implement the following measures to control fugitive dust during construction activities:

  - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
  - All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
  - All visible mud or dirt tracked out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
  - All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
  - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
  - Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
  - All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
  - All trucks and equipment, including their tires, shall be washed off or otherwise cleaned prior to leaving the site.
  - Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
  - Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

- **APM AQ-3: Naturally-Occurring Asbestos Compliance.** LS Power shall ensure that construction activities comply with existing regulations pertaining to naturally-occurring asbestos (NOA), including the CARB Airborne Toxic Control Measures (ATCMs) for NOA, when construction activities have the potential to encounter NOA. ATCM for NOAs include dust control measures consistent with APM AQ-2.

3.3.3.2 PG&E Best Management Practices and Field Protocols

PG&E would be responsible for the implementation of its best management practices (BMPs) related to air quality. The analysis assumes that the following BMPs would be implemented by PG&E as part of its work for the Project.

- **PG&E BMP AQ-1: Vehicle Idling**. A vehicle operator is prohibited from idling an on-road diesel-fueled vehicle with a Gross Vehicle Weight of 210,001 pounds (lbs), or an off-road diesel-fueled vehicle with a primary engine 225 horsepower (hp), in excess of five minutes unless conducting one or more of the following activities:
  - Doing work for which the vehicle was intended;
  - Powering equipment necessary to perform a job function;
  - Operating lights or signals to direct traffic at a PG&E job site;
  - Service, testing or maintenance on the vehicle;
  - Regenerating an exhaust filter;

  - Idling for safety reasons, including providing light when working after dark, defrosting windows, keeping the cabin warm to avoid a health hazard, and providing air conditioning to avoid heat illness;
  - Idling due to traffic conditions beyond the vehicle operator's control;
  - Warming an engine up to operating temperatures, as specified by the equipment manufacturer;
  - Queuing, such as when a line of off-road trucks forms to receive materials from an excavator. Queuing does not include a vehicle waiting for another vehicle to perform a task. Idling while queuing is not allowed within 100 feet of a residential home.

- **PG&E BMP AQ-2: Asbestos**. Because Metcalf Substation is located in an area with known encounters of Naturally Occurring Asbestos (NOA), PG&E shall follow PG&E's Utility Procedure: ENV-1002P-02 for construction and grading activities at Metcalf Substation to ensure compliance with applicable State of California regulations including the Asbestos Airborne Toxic Control Measure (AATCM).

  PG&E is responsible for obtaining permits from the air district prior to start of work.

- **PG&E BMP AQ-3: Fugitive Dust – General**. Field crews must limit fugitive dust from PG&E project work at all times. Types of work activities where water trucks or other dust abatement methods are typically required include:
  - Construction; Demolition; Excavation; Trenching; Grading; Sand blasting; and other earthmoving activities.

  Visible emissions of fugitive dust from PG&E project activities must be maintained within the project boundary. The crew shall abate dust by:
  - Applying water to disturbed areas and to storage stockpiles;
  - Covering and securing stockpiled soil at the end of each workday;
  - Applying water in sufficient quantities to prevent dust plumes during activities such as clearing & grubbing, backfilling, trenching and other earth moving activities;
  - Limit vehicle speed to 15 miles per hour within approved unpaved work areas and along unpaved roads;
  - Vehicles and equipment used to transport bulk materials must be wetted, covered, and provide at least 6 inches of free board (space between top of truck and load) during transport;
  - Clean-up track-out at least daily;
  - Escalate preventative measures as needed to match conditions;
  - Consider postponing construction activities during high wind events; and
  - The crew shall not generate dust in amounts that create a nuisance to wildlife or people, particularly where sensitive receptors such as neighborhoods, schools, and hospitals are located nearby or down-wind. During inactive periods (e.g. after normal working hours, weekends, and holidays), the crew shall apply water or other approved material to form a visible crust on the soil and restrict vehicle access.

- **PG&E BMP AQ-4: Portable Equipment Registration Program**. PG&E requires that portable engines be registered into the Statewide Portable Equipment Registration Program (PERP) administered by the California Air Resources Board (CARB), if:
  - the engine is portable (mounted on a truck, trailer, skids, or wheels);
  - the engine is 50 brake horsepower or greater, and;
  - the engine does not provide motive force for a vehicle.

  Auxiliary engines mounted on vehicles need to be registered if they are 50 brake horsepower or greater. For PG&E-owned units, PG&E Environmental Management Air Program is responsible for maintaining valid PERP registration with support from Transportation Services. For rental units, the rental vendor is responsible for the PERP registration and to provide PG&E with a copy of the current registration, permit, and placard before use.

  Standard Requirements:

  - If a current placard, registration sticker, and registration paperwork is not on the unit, the crew shall NOT use the piece of equipment and have it replaced with a unit that is compliant.
  - For Rental Units: residence time onsite must be logged upon arrival onsite and upon removal. This record shall be retained and made available for review by the project Environmental Field Specialist (EFS).

  Additional Requirements:

  - If the PERP unit is being used to provide primary or supplemental power to a building during an electrical upgrade there is a 90-day limit on the use of PERP.
  - If the PERP unit is being used to provide primary or supplemental power to a building for greater than 12 months and an electrical upgrade is not happening a local air district permit is required.
  - If the PERP generator is being used for PSPS support in the following air districts a local air district permit will be required:
    - Bay Area Air Quality Management District (AQMD)
    - Placer County AQMD
    - Yolo-Solano AQMD
    - Northern Sonoma AQMD
    - San Joaquin Valley APCD
    - Feather River AQMD
    - If the PERP generator is being used for PSPS support in the following air districts a local air district permit may be required:
    - Monterey Bay ARD [Air Resources District]
  - Feather River AQMD
  - If the PERP Unit is being used to replace a failed stationary source generator:
    - a local district notification is required within 72 hours;
    - a Tier 4 Final Engine should be used;

    - and a local district permit may be required in 180 days.
  - If the PERP unit is being used for Capacity Shortfall in Feather River AQMD or Yolo-Solano AQMD, a local air district permit is required.

  Greenhouse Gas (GHG) Facility Requirements:

  If diesel portable engines greater than 50 brake horsepower (bhp) are operated onsite at a GHG facility subject to the Mandatory Reporting Rule for GHGs (MRR) at any time, the AB617 PERP Log must be completed.[2] Refer to the PERP Engine Tracking Requirements at GHG Reporting Facilities 5MM for details.

- **PG&E BMP AQ-5: Tier 4 Construction Equipment**. At least 75 percent of construction equipment with a rating between 100 and 750 hp shall be required to use engines compliant with EPA Tier 4 non-road engine standards. In the event enough Tier 4 equipment are not available to meet the 75-percent threshold, documentation of the unavailability shall be provided and engines utilizing a lower standard shall be used.

3.3.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant impact on air quality if it would do any of the following:

a) Conflict with or obstruct implementation of the applicable air quality plan.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard.

c) Expose sensitive receptors to substantial pollutant concentrations.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Thresholds for Evaluating Criteria Air Pollutants

As described above in Section 3.3.2, *Regulatory Setting*, the Bay Area experiences low concentrations of most pollutants when compared to federal and State standards. The Bay Area is designated as either attainment or unclassified with respect to most ambient air quality standards for criteria air pollutants, with the exceptions of ozone, $PM_{2.5}$, and PM_{10}, for which the air basin is designated as nonattainment with respect to either the federal or State standards, or both.

By definition, regional air pollution is largely a cumulative impact, in that no single project is large enough to result in nonattainment of air quality standards by itself. Instead, a project's individual emissions contribute to the existing, cumulative air quality conditions. If a project's contribution to cumulative air quality conditions is considerable, then the project's impact on air quality would be considered significant (BAAQMD 2023).

Table 3.3-4 presents BAAQMD-recommended significance thresholds for the Project-level analysis, followed by a discussion of each threshold. These are considered levels below which

[2] The Mandatory Reporting Rule for GHGs is not applicable to the Project. The Project would not include stationary combustion or process emissions that would be greater than 10,000 metric tons per year or greater.

projects are not anticipated to contribute to an air quality violation, cause a significant human health risk, or result in a considerable net increase in criteria air pollutants. According to BAAQMD, land development projects that would result in criteria pollutant emissions below these significance thresholds would also not result in a cumulatively considerable net increase in criteria air pollutants within the Bay Area (BAAQMD 2023).

TABLE 3.3-4
BAAQMD CEQA AIR QUALITY SIGNIFICANCE THRESHOLDS

Pollutant	Construction Thresholds	Operational Thresholds	
Criteria Air Pollutants and Precursors (Regional)			
Pollutant	**Average Daily Emissions (pounds per day)**	**Average Daily Emissions (pounds per day)**	**Maximum Annual Emissions (tons per year)**
ROG	54	54	10
NOx	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
Fugitive Dust	Best management practices (BMPs)[a]	Not applicable	
CO	Not applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Health Risk and Hazards			
Cumulative Increased Cancer Risk	Same as operational thresholds	>100 individuals per one million exposed	
Cumulative Increased Non-cancer Hazard (Acute or Chronic)	Same as operational thresholds	>10.0 Hazard Index	
Cumulative Incremental Annual $PM_{2.5}$	Same as operational thresholds	>0.8 µg/m^3 annual average	
Individual Project Increased Cancer Risk	Same as operational thresholds	>10.0 individuals per one million exposed	
Individual Project Increased Non-cancer Hazard (Acute or Chronic)	Same as operational thresholds	>1.0 Hazard Index	
Individual Project Incremental Annual $PM_{2.5}$	Same as operational thresholds	>0.3 µg/m^3 annual average	

NOTES:
µg/m^3 = micrograms per cubic meter; BAAQMD = Bay Area Air Quality Management District; BMP = best management practice; CEQA = California Environmental Quality Act; CO = carbon monoxide; NOx = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ppm = parts per million; ROG = reactive organic gases

a. Implementation of BAAQMD BMPs would demonstrate a less-than-significant fugitive dust impact.

SOURCE: BAAQMD 2023

Land use development projects emit ROG, NO_X, PM_{10}, and $PM_{2.5}$ as a result of increases in vehicle trips, energy use, architectural coating, and construction activities. The thresholds presented in Table 3.3-4 can be applied to the construction and operational phases of projects. A project that would result in emissions below these thresholds would not be considered to contribute to an existing or projected air quality violation or result in a considerable net increase in ozone precursors or particulate matter. Because of the temporary nature of construction activities, only the average daily thresholds are applicable to construction-phase emissions.

Fugitive dust emissions are typically generated during construction phases. Applying BMPs at construction sites can substantially control fugitive dust and individual measures have been shown to reduce fugitive dust by 30–90 percent (BAAQMD 2023). BAAQMD has identified a list of basic and enhanced BMPs to control fugitive dust emissions from construction activities and considers fugitive dust-related impacts to be less than significant if these BMPs are implemented (BAAQMD 2023). Those basic and enhanced BMPs are identified below. BAAQMD strongly recommends implementing its enhanced BMPs near schools, residential areas, or other sensitive land uses located near the construction site.

Since APM AQ-2 includes all of the basic BMPs recommended by BAAQMD for construction-related fugitive dust but not the enhanced BMPs, listed below, this analysis assumes that LSPGC would implement BAAQMD's basic BMPs but not BAAQMD's enhanced BMPs as part of the Project pursuant to APM AQ-2, which is the basis for determining the significance of the air quality impact caused by construction-phase fugitive dust emissions.

BAAQMD Basic Best Management Practices for Construction-Related Fugitive Dust Emissions

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material offsite shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

BAAQMD Enhanced Best Management Practices for Construction-Related Fugitive Dust Emissions

- Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
- Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
- Plant vegetative ground cover (e.g. fast-germinating native grass seeds) in disturbed areas as soon as possible and watered appropriately until vegetation is established.

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- Minimize the amount of excavated material or waste materials stored at the site.
- Hydroseed or apply non-toxic stabilizers to construction areas; including previously graded areas, that are inactive for at least 10 calendar days.

3.3.5 Direct and Indirect Effects

3.3.5.1 Approach to Analysis

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

Regional Criteria Air Pollutants

Equipment and vehicles used to transport workers, equipment, and materials to and from the Project's construction areas would emit criteria pollutants during the construction phase. In addition, PM emissions would be generated in the form of fugitive dust from ground-disturbing activities and vehicle travel on unpaved roads and surfaces. Upon the completion of construction, periodic Project-related operation and maintenance activities would emit criteria pollutants. These activities are expected to be similar to existing activities at the substations.

Impacts of the Project's criteria air pollutant emissions on regional air quality were assessed by comparing the estimated emissions from the construction and operation and maintenance phases of the Project to applicable emissions thresholds established by BAAQMD (Table 3.3-4). Project emissions were estimated using California Emissions Estimator Model (CalEEMod) Version 2022.1.1. (see Appendix B). Average daily emissions were derived from the annual emissions, as estimated by CalEEMod, divided by the number of construction workdays.

The assumptions about construction phasing and schedule, equipment, and vehicular activity that were used for the estimate of emissions were based on Project-specific information provided by LSPGC. Construction vehicle trip lengths for workers and on-road construction trucks were also provided by LSPGC.

Health Risk Assessment

In addition to criteria air pollutants, the Project would generate TACs, primarily DPM emissions from construction equipment and heavy-duty trucks. Based on the locations of sensitive receptors relative to the different Project components and the intensity and duration of construction activities associated with these components, construction activities at the proposed Skyline and Grove HVDC Terminals were identified as Project components that would have the potential to pose health risks to existing sensitive receptors in its vicinity. The Fountain Plaza and Iamesi Village Apartments are the nearest sensitive receptors to the proposed Skyline HVDC Terminal

site, located 200 feet east of the proposed HVDC terminal site along Ryland Street and Bassett Street, respectively.

Sensitive receptors near the proposed Grove HVDC Terminal site are residences to the west and northwest of the Project site, at distances of approximately 50–200 feet from the site off Monterey Road. Construction activities would also occur for other Project components, including work at the existing PG&E Metcalf Substation and PG&E San Jose B Substation. The existing PG&E Metcalf Substation is not located within 1,000 feet of sensitive receptors[3] and therefore is not expected to expose sensitive receptors to substantial pollutant concentrations. However, the existing San Jose B Substation is adjacent to the proposed Skyline HVDC Terminal area and is approximately 300 feet west of sensitive receptors.

A health risk assessment, or HRA, was conducted to evaluate the potential health risks associated with temporary TAC emissions from construction activities at the proposed Skyline and Grove HVDC Terminals (see Appendix B). The HRA is representative of potential impacts on sensitive receptors near the existing PG&E San Jose B Substation. Because construction activities for the proposed transmission lines would not expose any one sensitive receptor to TACs for longer than 2 months , the associated health risk impacts would be less than significant and are not addressed in the HRA (OEHHA 2015). The HRA specifically evaluated activities requiring the use of diesel-fueled heavy equipment and trucks, resulting in DPM emissions. The HRA focuses on the pollutants of concern ($PM_{2.5}$ and DPM) because these pollutants can pose substantial health impacts at the local level to a greater degree than other types of air pollutants generated by construction activities. DPM is a complex mixture of gases and fine particles that includes more than 40 substances that are listed by USEPA as hazardous air pollutants and by BAAQMD as TACs; however, in accordance with California Office of Environmental Health Hazard Assessment (OEHHA) and BAAQMD health risk guidance, the DPM analysis uses exhaust PM_{10} emissions as a surrogate for DPM emissions (OEHHA 1998). This is a conservative approach because DPM is a subset of exhaust PM_{10}, and therefore the fraction of DPM emissions is expected to be lower.

The HRA evaluated the estimated incremental increase in lifetime cancer risk from exposure to DPM emissions and the annual-average $PM_{2.5}$ concentrations associated with fuel combustion in hauling and vendor trucks, idling, and on-road fugitive sources (including tire wear, brake wear, and fugitive road dust) that would be emitted by construction activities. The HRA includes DPM and $PM_{2.5}$ emissions from worker trips, and vendor and hauling trucks.

Construction activity data provided by LSPGC in conjunction with default CalEEMod inputs were used to prepare a construction HRA using the American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee's regulatory air dispersion model (AERMOD) and HRA guidelines from BAAQMD and OEHHA (USEPA 2024; see Appendix B). Emission rates estimated as described under Impact 3.3-2 were entered into AERMOD to derive concentrations across a 20-meter-by-20-meter receptor grid that covered all receptors within 1,000 feet of the potential Project site boundaries. BAAQMD

[3] BAAQMD considers 1,000 feet around sources as the zone of influence for assessing health risk impacts (BAAQMD 2023).

considers 1,000 feet around sources as the zone of influence for assessing health risk impacts (BAAQMD 2023). Receptors analyzed included residences, childcare centers, schools, and workers (both on-campus and off-site). The concentrations estimated in AERMOD were then used to calculate health risks using health risk parameters and equations from the OEHHA and BAAQMD guidelines for HRAs (OEHHA 2015; BAAMQD 2023).

For assessing impacts on existing off-site receptors from construction TAC emissions, construction exposure is assumed to begin in a fetus at the start of the third trimester. Construction could also expose off-site workers not affiliated with the Project. Calculations for health risks for off-site workers are similar, although they do not include age sensitivity factors between the third trimester and age 16. In addition, the exposure concentration is for only a typical workday (8 hours), which is significantly lower than exposure time for residential uses. Based on review of the construction sites, off-site workers not affiliated with the Project are not likely to be working either adjacent to or closer than identified sensitive residential receptors.

The thresholds of significance used to evaluate community health risks and hazards from new sources of TACs are the BAAQMD risk threshold levels for cancer risk, acute and chronic non-cancer health risks, and annual-average $PM_{2.5}$ concentrations, as presented in Table 3.3-4. If the Project would contribute TAC emissions resulting in increased health risk values or annual-average $PM_{2.5}$ concentration contributions exceeding these thresholds at the maximally exposed individual receptor (MEIR) (including residential, school, and daycare receptors), the Project would have a significant impact. This analysis is presented in Impact 3.3-3.

3.3.5.2 Impact Assessment

Criterion a) Whether the Project would conflict with or obstruct implementation of the applicable air quality plan.

Impact 3.3-1: The Project would conflict with or obstruct implementation of the applicable air quality plan. (*Less than Significant with Mitigation*)

BAAQMD has established air quality plans to address nonattainment areas in their respective jurisdictions as detailed in Section 3.3.2. The air quality plans have been prepared taking into account the latest planning assumptions regarding population, vehicle activity, and industrial activity. They address all existing and forecast ozone precursor–producing activities within the BAAQMD jurisdictions to achieve attainment and maintenance of the ambient air quality standards.

Construction

The Project would not alter the land use plans for the area and would not result in notable population or employment growth beyond what is currently accounted for in the air quality plans. Project emissions would be generated primarily during construction activities and would mostly cease upon the completion of construction. Construction emissions represent a fraction of the regional emission inventories included in the applicable air quality plan (BAAQMD 2017c). Implementation of LSPGC APMs AQ-1 through AQ-3 and PG&E BMPs AQ-1 through AQ-5 would reduce potential impacts on air quality and these measures are part of the Project's design.

However, as described under Impact 3.3-2, the Project's construction emissions of criteria air pollutants would have the potential to exceed the BAAQMD significance thresholds. Such emissions would result in a cumulatively considerable net increase of nonattainment criteria pollutants and could conflict with or obstruct implementation of the 2017 Clean Air Plan, which would result in a significant impact.

Implementation of **LSPGC Mitigation Measure 3.3-2a: Construction Fleet Minimum Requirements and Tracking – LSPGC Tier 4 Final Emissions Controls** and **PG&E Mitigation Measure 3.3-2b: Construction Fleet Minimum Requirements and Tracking – PG&E Tier 4 Final Emissions Controls** is required, to ensure that emissions would not exceed the significance thresholds (see Impact 3.3-2 discussion, below), and therefore, Project construction would not result in a cumulatively considerable net increase of any nonattainment criteria pollutant under an applicable federal or State ambient air quality standard, and would, therefore, not conflict with or obstruct implementation of the 2017 Clean Air Plan. These mitigation measures would replace and supersede APM AQ-2 and PG&E BMP AQ-5.

Implementation of **LSPGC Mitigation Measure 3.3-2c: Use Best Management Practices for Construction-Related Fugitive Dust Emissions** and **PG&E Mitigation Measure 3.3-2d: Use Best Management Practices for Construction-Related Fugitive Dust Emissions** is also required, to ensure that fugitive dust emissions are controlled by incorporating enhanced measures recommended by BAAQMD to limit the dust impact to less than significant. These mitigation measures replace LSPGC APM AQ-2 and PG&E BMP AQ-3, respectively, and would ensure that the Project would not result in a cumulatively considerable net increase of fugitive dust that could contribute to an exceedance of an applicable federal or State ambient air quality standard Therefore, with implementation of LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d, the Project would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be reduced to **less than significant.**

Operation and Maintenance

Upon the completion of construction, the Project would generate minimal emissions during operation and maintenance activities, primarily from mobile, area, and energy sources. One new full-time technician would be retained by LSPGC to support the proposed Grove and Skyline HVDC Terminal activities. The activities would include but would not be limited to transmission line inspections, vegetation treatment, control of brush and weeds, and maintenance of road conditions, which would require the use of vehicles and equipment. However, this increase in Project-related operation and maintenance emissions would be nominal and well below the applicable BAAQMD significance thresholds shown in Table 3.3-4, as shown in **Table 3.3-6**, *Combined Expected Project Operational Emissions*.

Additionally, the PG&E upgrades to the two existing substations, modifications to the PG&E Metcalf Substation and expansion of the PG&E San Jose B Substation, are not anticipated to change existing inspection, repair, and maintenance conditions. Operational emissions from the Project would not affect BAAQMD's efforts to achieve attainment and maintenance of the standards. Therefore, the operation and maintenance impact of the Project would not conflict with

or obstruct implementation of the applicable air quality plans, and the impact would be **less than significant**.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d (see Impact 3.3-2 below).
>
> **Significance after Mitigation:** With implementation of LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d, the impact associated with a conflict or obstruction of implementation of the applicable air quality plan would be reduced to less than significant.

Criterion b) Whether the Project would result in a cumulatively considerable net increase of a criteria air pollutant for which the region is in nonattainment status.

Impact 3.3-2: The Project would result in a cumulatively considerable net increase of criteria pollutants for which the project region is nonattainment under an applicable federal or State ambient air quality standard. (*Less than Significant with Mitigation*)

CEQA defines *cumulative impacts* as two or more individual impacts that, when considered together, are either significant or "cumulatively considerable," meaning that they add considerably to a significant environmental impact. By its very nature, air pollution is largely a cumulative impact. No single project would likely be large enough to result in nonattainment of the regional air quality standards by itself. Instead, a project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development within the Bay Area. The nonattainment status of the Bay Area with respect to regional pollutants is a result of past and present development. Future attainment of the State and federal ambient air quality standards is a function of successful implementation of BAAQMD attainment plans. Consequently, BAAQMD's thresholds of significance are designed to ensure that no individual project's contribution to the cumulative impact (nonattainment) is cumulatively considerable.

Construction

The Project's construction activities would require the use of off-road construction equipment and on-road vehicles, which would generate criteria air pollutants that could contribute to violations of the ambient air quality standards for ozone, $PM_{2.5}$, and PM_{10}. **Table 3.3-5**, *Combined Expected Mitigated Project Construction Emissions (Pounds per Day)*, summarizes the emissions anticipated to occur with construction of all three Project components combined and compares them to the applicable BAAQMD significance threshold.

As described in APM AQ-1, LSPGC has committed to the use of **either** Tier 4 Interim or Tier 4 Final emissions controls in off-road construction equipment, and as described in PG&E BMP AQ-5, PG&E has committed to **general** Tier 4 emission controls in off-road construction equipment. However, the emissions estimates were modeled to incorporate Tier 4 Final emissions controls in off-road construction equipment, which results in considerably greater NOx emissions reductions than the use of Tier 4 Interim equipment as proposed. Because LSPGC and PG&E have not committed to requiring Tier 4 Final emissions controls, the emissions in Table 3.3-5 are

underestimated relative to the Project as proposed. Although the associated emissions reductions have not been quantified, the Project would also implement LSPGC APMs AQ-2 and AQ-3 and PG&E BMPs AQ-1 through AQ-4 to achieve an additional reduction in criteria air pollutant emissions, further minimizing potential air quality impacts during construction activities.

TABLE 3.3-5
COMBINED EXPECTED MITIGATED PROJECT CONSTRUCTION EMISSIONS (POUNDS PER DAY)

	ROG	NOx	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Grove HVDC Terminal and Metcalf Substation Modification	1.07	11.94	0.18	0.18
Skyline HVDC Terminal and San Jose B Substation Expansion*	0.90	9.74	0.15	0.15
Transmission Lines Construction	2.07	16.01	0.43	0.40
Combined Construction Emissions	**4.03**	**37.69**	**0.76**	**0.73**
Significance Threshold	54	54	82	54
Significant?	**No**	**No**	**No**	**No**

NOTES:

HVDC = high-voltage direct current; NO_X = oxides of nitrogen; PM_{10} = particulate matter less than or equal to 10 microns in diameter; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter; ROG = reactive organic gases

* The emission estimates for the PG&E San Jose B Substation Expansion include emissions for PG&E activities that are not part of the Project. The emissions associated with the PG&E activities that would not be part of the Project would occur in 2028 through 2030. Removing those emissions and reducing the number of workdays for the average daily emissions estimate would have the effect of increasing those emissions by approximately 60 percent. For example, Skyline HVDC Terminal and San Jose B Substation Expansion NOx emissions would be approximately 16 pounds. This 6-pound NOx increase would continue to be well below the 54-pounds-per-day significance threshold.

SOURCES: Data compiled by Environmental Science Associates in 2025 (see Appendix B)

As shown in Table 3.3-5, estimates of all construction-related criteria air pollutant emissions generated would be below the respective significance thresholds. Because LSPGC and PG&E have not committed to requiring Tier 4 Final emissions controls, the emissions presented in Table 3.3-5 do not substantiate that Project emissions as proposed would be below the significance thresholds. Therefore, the impact would be considered significant.

LSPGC Mitigation Measure 3.3-2a is required to replace APM AQ-1 to ensure that LSPGC would require the use of Tier 4 Final emissions controls for construction of the proposed HVDC terminals and transmission lines. PG&E Mitigation Measure 3.3-2b is required to replace PG&E BMP AQ-5 to ensure that PG&E would require the use of Tier 4 Final emissions controls for construction relative to its substation work.[4] The construction exhaust emissions shown in Table 3.3-5 represent emissions with implementation of LSPGC Mitigation Measure 3.3-2a and PG&E Mitigation Measure 2.2-2b. The mitigated emissions would not exceed the significance thresholds and would not result in a cumulatively considerable net increase of any nonattainment criteria pollutant under an applicable federal or State ambient air quality standard. The cumulative impact with respect to criteria air pollutant exhaust emissions would be mitigated to a **less-than-significant** level.

[4] Tier 4 "Interim" emission controls would not reduce NO_X emissions to the extent modeled and shown in Table 3.3-5. Based on the CalEEMod Appendix G Default Data Tables – G-13, Tier 4 Final emission factors by engine tier are significantly lower than Tier 4 Interim controls. For example, CalEEMod Tier 4 Final NOx emission factors for most off-road equipment are 12 to 20 percent of Tier 4 Interim NOx emission factors (CalEEMod 2025).

BAAQMD recommends a qualitative approach for addressing criteria pollutant emissions of fugitive dust from construction activities. Specifically, BAAQMD considers any project that implements the BAAQMD Best Management Practices for Construction-Related Fugitive Dust Emissions to not result in a significant impact with respect to mass criteria pollutant emissions of fugitive dust (BAAQMD 2023). BAAQMD categorizes its BMPs into two types: basic and enhanced. LSPGC and PG&E propose to implement the basic BMPs through LSPGC APM AQ-2 and PG&E BMP AQ-3, but implementation of the enhanced BMPs is not proposed. Given the relatively large scope of ground disturbance that would occur under the Project, implementing only the basic BMPs could result in a potentially significant impact per BAAQMD's recommended approach for evaluation of fugitive dust emissions.

Therefore, LSPGC Mitigation Measure 3.3-2c is required to replace LSPGC APM AQ-2 and PG&E Mitigation Measure 3.3-2d is required to replace PG&E BMP AQ-3 to ensure that fugitive dust emissions associated with LSPGC's Project components would be controlled with basic and enhanced dust control measures. With the implementation of LSPGC Mitigation Measure 3.3-2c and PG&E Mitigation Measure 3.3-2d, fugitive dust–related criteria pollutant impacts during construction would be reduced to **less than significant**.

Operation and Maintenance

Upon the completion of construction, the Project would generate minimal emissions during operation and maintenance activities, primarily from mobile, area, and energy sources. One new full-time technician would be retained by LSPGC to support the proposed Grove and Skyline HVDC Terminal activities and other California projects operated by LSPGC. The activities would include but would not be limited to transmission line inspections, vegetation treatment, control of brush and weeds, and maintenance of road conditions, which would require the use of vehicles and equipment. However, this increase in Project-related operation and maintenance emissions would be nominal and well below the applicable BAAQMD significance thresholds as shown in **Table 3.3-6**, *Combined Expected Project Operational Emissions*. Additionally, the PG&E upgrades to the two existing substations, modifications to the Metcalf Substation and expansion of the San Jose B Substation, are not anticipated to change existing inspection, repair, and maintenance conditions.

TABLE 3.3-6
COMBINED EXPECTED PROJECT OPERATIONAL EMISSIONS (POUNDS PER DAY)

	ROG	NOx	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Skyline HVDC Terminal	0.05	<0.005	<0.005	<0.005
Grove HVDC Terminal	0.05	<0.005	<0.005	<0.005
Combined Operational Emissions	**0.10**	**<0.005**	**<0.005**	**<0.005**
Significance Threshold	54	54	82	54
Significant?	**No**	**No**	**No**	**No**

NOTES: HVDC = high-voltage direct current; NO_X = oxides of nitrogen; PM_{10} = particulate matter less than or equal to 10 microns in diameter; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter; ROG = reactive organic gases

SOURCES: Data compiled by Environmental Science Associates in 2025; Appendix B.

Therefore, Project operation and maintenance activities would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment status under an applicable federal or State ambient air quality standard. The cumulative impact with respect to criteria air pollutant emissions that would be generated during Project operation would be **less than significant**.

Health Effects of Criteria Pollutants

The health effects from emissions of criteria air pollutants are described above in Section 3.3.1.1, *Criteria Air Pollutants*. With respect to adverse health effects associated with fugitive dust particulate matter emissions, see the discussion and analysis of $PM_{2.5}$ concentrations in Impact 3.3-3, which considers the exposure of residences to $PM_{2.5}$ dust and exhaust emissions in the vicinity of construction of the proposed Skyline and Grove HVDC Terminal components of the Project.

Compliance with the ambient air quality standards indicates that regional air quality can be considered protective of public health. As discussed above, Project construction activities could result in emissions that would exceed the BAAQMD exhaust emissions thresholds for criteria air pollutants. However, with implementation of LSPGC Mitigation Measure 3.3-2a and PG&E Mitigation Measure 3.3-2b, Project emissions would not exceed the significance thresholds. Therefore, Project construction and operation and maintenance activities are not anticipated to result in an adverse health effect with respect to exhaust emissions of criteria air pollutants, and this impact would be reduced to a **less-than-significant** level.

> **LSPGC Mitigation Measure 3.3-2a: Construction Fleet Minimum Requirements and Tracking – LSPGC Tier 4 Final Emissions Controls.**
>
> LSPGC shall ensure that at least 75 percent of equipment horsepower hours related to off-road construction equipment include Tier 4 Final emissions controls for all construction locations except the Grove and Skyline HVDC Terminals. LSPGC shall ensure that 100 percent of all off-road construction equipment used at the terminal sites is Tier 4 Final compliant. An initial listing that identifies each off-road unit's certified tier specification to be operated for the Project shall be submitted to the CPUC for review and approval before the start of construction activities. Construction activities shall not begin until the equipment listing has been submitted to and approved by the CPUC.
>
> As LSPGC requires new or replacement construction equipment on the Project, LSPGC shall document verification of the certified engine tier and provide such documentation to the CPUC for approval before its use on Project sites.
>
> Before the start of construction, LSPGC shall develop an off-road construction equipment-use hours tracking tool and procedure. Construction activities shall not begin until the tracking tool and procedure have been submitted to and approved by the CPUC. The tracking tool shall be utilized by LSPGC to keep track of the certified engine tier and daily equipment use hours of all off-road diesel-powered equipment. If all off-road construction equipment is Tier 4 Final certified, the tracking tool is not required. The tracking tool shall be maintained by LSPGC, and tracking updates shall be submitted to the CPUC monthly to track the Project's compliance. The updated tracking tool shall be submitted to the CPUC no later than the 10th day of the following month.

PG&E Mitigation Measure 3.3-2b: Construction Fleet Minimum Requirements and Tracking – PG&E Tier 4 Final Emissions Controls.

PG&E shall ensure that all off-road construction equipment used to complete the San Jose B Substation expansion, the Metcalf Substation modification, and any other work PG&E will complete under the Project includes Tier 4 Final emissions controls. An initial listing that identifies each off-road unit's certified tier specification to be operated for each substation and any other work to be completed under the direction of PG&E shall be submitted to the CPUC for review and approval before the start of construction activities. Construction activities shall not begin until the equipment listing has been submitted to and approved by the CPUC. As PG&E requires new or replacement construction equipment on the Project, PG&E shall document verification of the certified engine tier and provide such documentation to the CPUC for approval before its use on Project sites.

LSPGC Mitigation Measure 3.3-2c: Use Best Management Practices for Construction-Related Fugitive Dust Emissions.

LSPGC shall implement all of the following best management practices, which would reduce fugitive PM_{10} and $PM_{2.5}$ emissions:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or farther from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours of receiving a complaint. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.
- Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
- Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have a maximum of 50 percent air porosity.

- Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and water appropriately until vegetation is established.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- Minimize the amount of excavated material or waste materials stored at the site.
- Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

PG&E Mitigation Measure 3.3-2d: Use Best Management Practices for Construction-Related Fugitive Dust Emissions.

PG&E shall implement all of the following best management practices, which would reduce fugitive PM_{10} and $PM_{2.5}$ emissions:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or farther from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours of receiving a complaint. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.
- Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
- Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have a maximum of 50 percent air porosity.
- Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and water appropriately until vegetation is established.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

- Minimize the amount of excavated material or waste materials stored at the site.
- Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.3-2a would require LSPGC to use Tier 4 Final engines in at least 75 percent of Project construction equipment, with the exception of the proposed Grove and Skyline HVDC Terminals, where 100 percent of all off-road construction equipment engines must be Tier 4 Final.

Implementation of PG&E Mitigation Measure 3.3-2b would require PG&E to use Tier 4 Final engines in all off-road construction equipment for all work it would complete under the Project. These measures would ensure that NO_x levels remain below significance thresholds for all components of the Project. Implementation of LSPGC Mitigation Measure 3.3-2c and PG&E Mitigation Measure 3.3-2d would reduce impacts of fugitive dust-related criteria pollutant emissions to a level considered by BAAQMD to be less than significant.

With the implementation of LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d, construction of the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment status under an applicable federal or State ambient air quality standard. The cumulative impact with respect to criteria air pollutant emissions that would be generated during Project construction would be **less than significant**.

Criterion c) Whether the Project would expose sensitive receptors to substantial pollutant concentrations.

Impact 3.3-3: The Project would expose sensitive receptors to substantial pollutant concentrations. (*Less than Significant with Mitigation*)

Construction

The potential for the Project to expose sensitive receptors to substantial pollutant concentrations of TACs is associated mainly with construction activities, which involve the generation of DPM from diesel combustion in construction equipment and heavy-duty trucks. As discussed previously, sensitive receptors in the vicinity of the Project sites include apartment residences located as close as 200 feet east of the proposed Skyline HVDC Terminal and approximately 50–100 feet northwest of the proposed Grove HVDC Terminal.

Maximum health risks from Project construction activities at the Skyline and Grove HVDC Terminals are presented in **Table 3.3-7**, *Maximum Mitigated Health Risks Associated with Construction Activities*. The model outputs and health risk analysis that support the information presented in the table are presented as part of Appendix B. The modeled construction activities include work at the existing San Jose B Substation and PG&E distribution line work at the proposed Grove and Skyline HVDC Terminals. The existing PG&E Metcalf Substation is not located within 1,000 feet of sensitive receptors; therefore, per BAAQMD guidance, the substation is not expected to expose sensitive receptors to substantial pollutant concentrations (BAAQMD

2023). However, the existing San Jose B Substation is adjacent to the proposed Skyline HVDC Terminal area and nearby sensitive receptors.

TABLE 3.3-7
MAXIMUM MITIGATED HEALTH RISKS ASSOCIATED WITH CONSTRUCTION ACTIVITIES

	Excess Cancer Risk (# per million)	$PM_{2.5}$ Concentration ($\mu g/m^3$)	Chronic Hazard Index (unitless)
Maximally Exposed Individual Receptor (MEIR) – Skyline HVDC Terminal	3.80	0.011	0.002
Maximally Exposed Individual Receptor (MEIR) – Grove HVDC Terminal	9.33	0.036	0.007
BAAQMD Significance Threshold	10	0.3	1
Threshold Exceeded?	No	No	No

NOTES: µg/m3 = micrograms per cubic meter; BAAQMD = Bay Area Air Quality Management District; HVDC = high-voltage direct current; MEIR = maximally exposed individual receptor; $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns

SOURCES: Data compiled by Environmental Science Associates in 2025, Appendix B.

As shown in Table 3.3-7, the excess cancer risk, $PM_{2.5}$ concentrations, and chronic hazard index at the MEIR locations for both proposed HVDC terminals would be below BAAQMD health risk thresholds. However, the health risks were estimated based on the incorporation of Tier 4 Final emissions controls for all equipment. As described in LSPGC APM AQ-1 and PG&E BMP AQ-5, LSPGC has committed only to the use of Tier 4 Interim or Tier 4 Final emissions controls and PG&E has committed only to general Tier 4 emission controls for 75 percent of construction equipment with a rating between 100 hp and 750 hp, respectively, so the use of Tier 4 Interim and other lesser emissions controls would be used for equipment less than 100 hp. For certain horsepower ratings (e.g., $25 \leq hp < 75$), CalEEMod Tier 4 Final particulate matter emissions factors are substantially lower than Tier 4 Interim particulate matter emissions. For other horsepower ratings (e.g., $75 \leq hp < 750$), the Tier 4 final and interim emissions factors are the same (CalEEMod 2025).

Therefore, the health risks presented in Table 3.3-7 may be underestimated relative to the Project as proposed. Because LSPGC and PG&E have not committed to requiring Tier 4 Final emissions controls for all construction equipment, the health risks presented in Table 3.3-7 do not substantiate that Project risks would be below the significance thresholds, and the impact would be potentially significant.

LSPGC Mitigation Measure 3.3-2a is required to replace LSPGC APM AQ-1 to ensure that LSPGC would require the use of Tier 4 Final emissions controls for construction of the HVDC terminals. PG&E Mitigation Measure 3.3-2b is required to replace PG&E BMP AQ-5 to ensure that PG&E would require the use of Tier 4 Final emissions controls for construction relative to its substation and other work. The health risks shown in Table 3.3-7 represent risks with implementation of LSPGC Mitigation Measure 3.3-2a and PG&E Mitigation Measure 2.2-2b. As shown in the table, the mitigated risks would not exceed the significance thresholds, and the impact would be reduced to a **less-than-significant** level.

Other Project Construction Components

Because construction activities for the proposed transmission lines would proceed at a linear pace, they would not be expected to expose any one sensitive receptor to TACs for longer than 2 months, and per OEHHA guidance (OEHHA 2015), the associated health risk impacts would be less than significant. In addition, construction equipment along the transmission line corridor would be temporarily stored in staging areas along the alignment. The short-term and periodic nature of the staging areas in the transmission line corridor would not result in pollutant concentrations that would pose a substantial health risk. Therefore, health risk impacts associated with the transmission line and staging area components would be **less than significant**.

Naturally Occurring Asbestos

Construction activities related to the Project's alignment and sites could disturb soil with NOA. LSPGC would implement APM AQ-3 to ensure that construction activities would comply with existing regulations and avoid significant impacts on Project personnel and sensitive receptors near the construction area. Likewise, PG&E would implement PG&E BMP AQ-2, as the potential exists for NOA to be encountered at the existing PG&E Metcalf Substation. These measures commit to implementing CARB's Asbestos Airborne Toxic Control Measures, including development and implementation of an asbestos dust mitigation plan to be submitted to and approved by BAAQMD that identifies dust control practices that are sufficient to ensure that no equipment or operation emits dust that is visible when crossing the property line. Both LSPGC and PG&E have committed to implementing dust control measures (see LSPGC APM AQ-2 and PG&E BMP AQ-3); however, BAAQMD may require additional measures like those in LSPGC Mitigation Measure 3.3-2c and PG&E Mitigation Measure 3.3-2d. Therefore, health risk impacts associated with construction-related NOA from the Project would be **less than significant**.

Operation and Maintenance

Upon the completion of construction, the Project would generate minimal emissions during operation and maintenance activities, primarily from mobile sources. Activities at the proposed Skyline and Grove HVDC Terminals would include but not be limited to transmission line inspections, vegetation treatment, control of brush and weeds, and maintenance of road conditions, which would require the use of vehicles and equipment. Additionally, the PG&E upgrades to the two existing substations, modifications to the Metcalf Substation and expansion of the San Jose B Substation, are not anticipated to change existing maintenance conditions. Operational emissions would be associated mainly with gasoline-powered passenger cars, with much lower associated health risks than those from DPM (CARB 2025e). Therefore, health risks from gasoline-powered employee trips are not quantified. Given the minimal emissions from operation and maintenance activities at each location, the Project's health risk impacts would be **less than significant.**

Mitigation: None required.

Criterion d) Whether the Project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Impact 3.3-4: The Project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. *(*Less than Significant*)*

Construction

Because of the nature of the Project, impacts resulting from other emissions, such as odors, are unlikely. Typical nuisances include odor-producing hydrogen sulfide, ammonia, chlorine, diesel engine emissions, and other sulfide-related emissions. No significant sources of these pollutants would exist during construction. Diesel-engine emissions and the accompanying odor would be short term, would be isolated to the immediate area surrounding the Project's temporary construction areas and access roads, would be intermittent, would disperse quickly, and would cease upon completion of construction.

Emissions and associated odors would be temporary and would disperse rapidly with distance from the source, and the majority of construction activities would occur in unoccupied open areas. Therefore, construction-generated emissions would not result in the frequent or long-term exposure of a substantial number of people to objectionable emissions and odors. This impact would be **less than significant**.

Operation and Maintenance

As described previously, the Project's operation and maintenance activities would be similar to those currently performed by LSPGC and PG&E for existing substations and their associated lines and proposed HVDC terminals. Potential emission sources associated with operation and maintenance activities would be limited, with the most likely source being diesel engine emissions. These emissions would be short term, limited to the location of the operation and maintenance activity, and intermittent; would disperse quickly; and would cease upon completion of the operation and maintenance activity at a given location.

Emissions would be temporary and would disperse rapidly with distance from the source, and the majority of operation and maintenance activities would occur in unoccupied open areas. Therefore, operation and maintenance -generated emissions and odors would not result in the frequent or long-term exposure of a substantial number of people to objectionable odorous emissions. This impact would be **less than significant**.

Mitigation: None required.

3.3.6 Cumulative Effects Analysis

The geographic scope considered for potential cumulative impacts on regional air quality is the Bay Area, which is governed by BAAQMD. The Bay Area is currently classified as nonattainment for the federal 8-hour ozone standard and the federal 24-hour $PM_{2.5}$ standard and nonattainment for the State 1-hour and 8-hour ozone, 24-hour PM_{10}, and annual-average PM_{10}

and $PM_{2.5}$ standards. Therefore, there is an existing adverse cumulative impact in the Bay Area relative to these pollutants. Based on BAAQMD guidance (BAAQMD 2023), the geographic scope considered for potential cumulative impacts on sensitive receptors is cumulative projects within 1,000 feet of sensitive receptors if the sensitive receptors are also within 1,000 feet of the Project area. Because air quality pollutant concentrations tend to disperse rapidly after they are generated or formed, the temporal scope considered for potential cumulative impacts on air quality consists of the same general construction and operational time frames as the Project.

3.3.6.1 Criterion a)

Impact C.3.3-1: The Project's impact related to a conflict with or obstruction of implementation of the applicable air quality plans for the Bay Area Air Quality Management District would be cumulatively considerable. (*Less than Significant with Mitigation*)

Impact 3.3-1 addresses potential impacts of the Project related to consistency with air quality plans adopted by BAAQMD. Because air quality plans focus on improving regional air quality and reducing population exposure to air pollutants throughout the region, the assessment under Impact 3.3-1 is a cumulative analysis in itself, as it evaluates consistency with the applicable regionwide air quality plan. Therefore, a separate cumulative assessment of consistency with air quality plans for the area is not required.

Projects that would emit ozone precursors (NOx or ROG), PM_{10}, and $PM_{2.5}$ in excess of threshold levels would further degrade regional air quality. Impact 3.3-2 evaluates whether the Project's contribution to this significant cumulative impact would be considerable by comparing Project-generated emissions to the applicable BAAQMD significance thresholds. The project-level criteria air pollutant thresholds set by air districts are generally based on levels below which new sources would not result in a cumulatively considerable net increase in criteria air pollutants for which the region is nonattainment of ambient air quality standards.

Therefore, a significant project-level impact also implies that the Project's contribution to the cumulative regional air quality impact would be significant. The Project could result in a cumulatively considerable contribution to nonattainment criteria pollutants, as evaluated under Impact 3.3-1. Therefore, the cumulative impact associated with a conflict with or obstruction of implementation of the applicable air quality plans could also be considerable and significant. With implementation of LSPGC Mitigation Measure 3.3-2a and PG&E Mitigation Measure 3.3-2b, the Project's exhaust emissions would not conflict with or obstruct implementation of the applicable air quality plan, and the Project's exhaust contribution to the cumulative impact would be reduced to less than significant. With implementation of LSPGC Mitigation Measure 3.3-2c and PG&E Mitigation Measure 3.3-2d, the Project's fugitive dust emissions would not conflict with or obstruct implementation of the applicable air quality plan, and the Project's fugitive dust contribution to the cumulative impact would be reduced to less than significant. Therefore, the Project's contribution to the cumulative impact related to a conflict with or obstruction of implementation of the applicable air quality plans, in combination with the impacts of cumulative projects, would be reduced to a **less-than-significant** level for exhaust and fugitive dust emissions.

Mitigation: Implement LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d (see Impact 3.3-2 above).

Significance after Mitigation: With implementation of LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d, the cumulative impact associated with a conflict with or obstruction of implementation of the applicable air quality plan would be reduced to a less-than-significant level.

3.3.6.2 Criterion b)

Impact C.3.3-2: The Project impact related to generation of a net increase in criteria pollutants for which the Project region is nonattainment under an applicable federal or State ambient air quality standard would be cumulatively considerable. (*Less than Significant with Mitigation*)

As described above in Impact 3.3-2 and Impact C.3.3-1, the Project would result in a cumulatively considerable contribution to nonattainment criteria pollutants. Therefore, the Project's impact related to generation of a net increase in criteria pollutants for which the Project region is nonattainment under an applicable federal or State ambient air quality standard would be cumulatively considerable, and the cumulative impact would be significant. However, with implementation of LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d, construction of the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment status under an applicable federal or State ambient air quality standard.

Mitigation: Implement LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d (see Impact 3.3-2 above).

Significance after Mitigation: With implementation of LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d, the cumulative impact associated with a cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment status under an applicable federal or State ambient air quality standard would be reduced to less than significant.

3.3.6.3 Criterion c)

Impact C.3.3-3: The Project's impact related to exposure of sensitive receptors to pollutant concentrations would be cumulatively considerable. (*Less than Significant with Mitigation*)

The Project would generate TAC emissions primarily as DPM and $PM_{2.5}$ fugitive dust and exhaust from construction activities that would contribute to cumulative health risk impacts at receptors in the vicinity. This impact, combined with existing background health risks and DPM emissions from construction and operation of the cumulative sources and projects, could result in a significant cumulative health risk impact. BAAQMD considers a project's cumulative health

risk significant if it exceeds 100 in a million for cancer risk, 10.0 for the chronic hazard index, or 0.8 µg/m³ for annual $PM_{2.5}$ concentrations from combined sources within a relevant exposure zone (BAAQMD 2023).

As described under *Health Risk Assessment* in Section 3.3.5, *Direct and Indirect Effects*, the Skyline and Grove HVDC Terminals are the Project components that could pose potential health risks to existing sensitive receptors in its vicinity.

Skyline HVDC Terminal

As shown in Table 3.0-1, there are two cumulative projects in the immediate vicinity of the Skyline HVDC Terminal that may be constructed simultaneously with the Project: Westbank Terraine (1) and Arbor (33) (see Figure 3.0-1). The two cumulative projects have been approved by the city of San José but have not begun construction. Therefore, these projects could involve construction at the same time as construction at the Skyline HVDC Terminal site. For a conservative analysis, it is assumed that the health risks associated with the Project and the two cumulative projects would affect the same maximally exposed individual receptor, or MEIR.

A review of the Project area for the Skyline HVDC Terminal MEIR indicates there are also existing sources of TACs within approximately 1,000 feet of the MEIR: one local roadway (Bassett Street), one local railway (Union Pacific Railroad), and four stationary sources (Tuc's Auto Body & Paint, which conducts repair and maintenance; First Community Housing, which has a generator on-site; FreeSlate Inc., which has a generator on-site; and The Sobrato Organization, which has a generator on-site).

The maximum combined cumulative health risks associated with the Project's Skyline HVDC Terminal MEIR and existing identified cumulative sources are presented in **Table 3.3-8**. As shown, cumulative health risk impacts to the Project MEIR from the identified sources indicate that the Project would not exceed BAAQMD's cumulative thresholds for cancer risk or the hazard index, but would exceed the annual $PM_{2.5}$ concentration threshold as a result of local roadway concentrations on Bassett Street. Further, the emissions estimates used as the basis for the Project's health risk assessment were modeled to incorporate Tier 4 Final emissions controls. Therefore, the Skyline HVDC Terminal's identified health risk contributions to the cumulative impact are underestimated for the Project as proposed and the cumulative impact could be significant.

Implementation of LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d is required to reduce the contribution of construction of the Skyline HVDC Terminal to the existing significant cumulative impact. Implementation of these mitigation measures would not reduce the existing contribution of vehicle emissions along Bassett Street; therefore, the existing cumulative impact relative to $PM_{2.5}$ concentrations is significant. However, the mitigation measures would reduce the Project's contribution to the significant cumulative impact to a less-than-significant level.

TABLE 3.3-8
SKYLINE HVDC TERMINAL MITIGATED MAXIMUM CUMULATIVE HEALTH RISKS

Maximally Exposed Individual Receptor	Excess Cancer Risk (# per million)	$PM_{2.5}$ Concentration ($\mu g/m^3$)	Chronic Hazard Index (unitless)
Skyline HVDC Terminal MEIR	3.80	0.01	<0.01
Westbank Terraine Project	23.77	0.14	0.01
Arbor Project[b]	7.63	0.15	<0.01
On-Road: Local Roadway—Bassett Street[c]	33.00	1.0	<0.01
Permitted Stationary: Tuc's Auto Body & Paint[c]	<0.01	<0.01	<0.01
Permitted Stationary: First Community Housing[c]	14.06	0.02	<0.01
Permitted Stationary: FreeSlate Inc[c]	1.34	<0.01	<0.01
Permitted Stationary: The Sobrato Organization[c]	0.68	<0.01	<0.01
Railway: Union Pacific Rail[c]	14	<0.01	<0.01
Cumulative Total	**98.28**	**1.32**	**0.01**
BAAQMD Significance Threshold	100	0.8	10.0
Threshold Exceeded?	No	**YES**	No

NOTES:

$\mu g/m^3$ = micrograms per cubic meter; BAAQMD = Bay Area Air Quality Management District; HVDC = high-voltage direct current; MEIR = maximally exposed individual receptor; $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns

a. An initial study addendum was distributed in March 2024 for the Westbank Terraine Project and presented a health risk analysis of the project's construction activities.
b. An initial study addendum was distributed in October 2021 for the Arbor Project and presented a health risk analysis of the project's construction activities.
c. Values are from BAAQMD's Mobile and Stationary Source Screening Map tool.

SOURCES: BAAQMD 2025; City of San José 2021, 2024b; data compiled by Environmental Science Associates in 2025 (Appendix B)

Grove HVDC Terminal

As shown in Table 3.0-1, there are no cumulative projects in the immediate vicinity of the Grove HVDC Terminal that may be constructed simultaneously with the Project. However, a review of the Project area for the Grove HVDC Terminal MEIR indicates that there are existing sources of TACs within approximately 1,000 feet of the MEIR: one local roadway (Monterey Road) and one local railway (Union Pacific Railroad).

The mitigated maximum combined cumulative health risks associated with the Project's Grove HVDC Terminal MEIR and existing identified cumulative sources are presented in **Table 3.3-9**. As shown, cumulative health risk impacts to the Project's MEIR from the identified sources indicate that the Project would not exceed the BAAQMD cumulative thresholds for cancer risk, hazard index, and annual $PM_{2.5}$ concentration. However, the emissions estimates used as the basis for the Project's health risk assessment were modeled to incorporate Tier 4 Final emissions controls. Therefore, the Grove HVDC Terminal's identified health risk contributions to the cumulative impact are underestimated for the Project as proposed and the cumulative impact could be significant. Implementation of LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d is required to

reduce the cumulative health risk impact associated with construction of the Grove HVDC Terminal to **less than significant**.

TABLE 3.3-9
GROVE HVDC TERMINAL MITIGATED MAXIMUM CUMULATIVE HEALTH RISKS

Maximally Exposed Individual Receptor	Excess Cancer Risk (# per million)	$PM_{2.5}$ Concentration ($\mu g/m^3$)	Chronic Hazard Index (unitless)
Grove HVDC Terminal MEIR	9.33	0.04	<0.01
On-Road: Local Roadway—Monterey Road[a]	8.0	<0.01	<0.01
Railway: Union Pacific Rail[a]	1.0	<0.01	<0.01
Cumulative Total	**18.33**	**0.04**	**<0.01**
BAAQMD Significance Threshold	100	0.8	10.0
Threshold Exceeded?	No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; BAAQMD = Bay Area Air Quality Management District; HVDC = high-voltage direct current; MEIR = maximally exposed individual receptor; $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns
a. Values are from BAAQMD's Mobile and Stationary Source Screening Map tool.
SOURCES: Data compiled by Environmental Science Associates in 2025 (Appendix B); BAAQMD 2025.

Other Project Construction Components

Construction activities for other Project components, including the new transmission line and equipment staging areas, are expected to generate TAC emissions at any single sensitive receptor location that would not be cumulatively considerable because of their distance from the source and/or short exposure periods. Therefore, the cumulative health risk impacts associated with construction of the other Project components would be **less than significant**.

Operation and Maintenance

Upon the completion of construction, the Project would generate minimal emissions during operation and maintenance activities, primarily from mobile, area, and energy sources. One new full-time technician would be retained by LSPGC to support the proposed Grove and Skyline HVDC Terminal activities and other California projects operated by LSPGC. The activities would include but not be limited to transmission line inspections, vegetation treatment, control of brush and weeds, and maintenance of road conditions, which would require the use of vehicles and equipment. However, this increase in Project-related operation and maintenance emissions would be nominal and well below the applicable BAAQMD significance thresholds as shown in Table 3.3-4. PG&E modifications to the Metcalf Substation and expansion of the San Jose B Substation are not anticipated to change from existing conditions, including inspections, repairs, and maintenance. Therefore, Project operation and maintenance activities would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment status under an applicable federal or State ambient air quality standard. The cumulative impact with respect to criteria air pollutant emissions that would be generated during Project operation would be **less than significant**.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d (see Impact 3.3-2 above).

Significance after Mitigation: With implementation of LSPGC Mitigation Measure 3.3-2a, PG&E Mitigation Measure 3.3-2b, LSPGC Mitigation Measure 3.3-2c, and PG&E Mitigation Measure 3.3-2d, the Project's impact associated with health risk from DPM and fugitive dust emissions would not be cumulatively considerable, and the cumulative health risk impact would be less than significant.

3.3.6.4 Criterion d)

Impact C.3.3-4: The Project's impact related to emissions (such as those leading to odors) adversely affecting people would not be cumulatively considerable. (*Less than Significant*)

The Project does not propose any land uses that could be considered sources of odor. Odor impacts of the Project would result primarily from diesel exhaust from construction equipment and trucks, which would be localized to the construction area. It is not anticipated that Project emissions would combine with any odor sources from the cumulative projects identified in Table 3.0-1 to result in a significant cumulative impact. Therefore, the Project's odor impact would not be cumulatively considerable and the cumulative impact with respect to odors would be **less than significant**.

Mitigation: None required.

3.3.7 References

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3.4 Biological Resources

This section evaluates the potential for construction, operation, and maintenance of the Project to result in impacts related to biological resources. For evaluation of potential biological resource impacts, the Project site is defined as the footprint of all Project components, including all areas of temporary and/or permanent ground disturbance and the surrounding natural and built communities within which the Project would be constructed and operated, as described in this section. The study area for biological resources included the Project site and areas within 1,000 feet from the Project boundary.

The CPUC received scoping comments from members of the public, community organizations, and local and state agencies pertaining to biological resources. Concerns expressed in the comment letters centered upon habitat disturbances associated with the Metcalf to Grove 500-kilovolt (kV) alternating current (AC) Transmission Line (Metcalf to Grove 500 kV Transmission Line), impacts on wildlife movement associated with the loss of agricultural lands to accommodate the proposed Grove high-voltage direct current (HVDC) Terminal (Grove HVDC Terminal), and impacts on large wildlife species from vehicle collisions on Monterey Road. Valley Water suggested in its comment letter that the EIR should evaluate potential Project impacts on the roots of woody riparian vegetation caused by proposed underground line placement. Copies of all scoping letters are provided in **Appendix A**, *Scoping Report*.

3.4.1 Environmental Setting

This section presents the regional setting, vegetation communities, habitat potential for special-status plant and wildlife species, sensitive natural communities, and wildlife corridors in the biological resources study area. The information presented here is based in part on the biological resources section, including the accompanying *Power Santa Clara Valley Project Biological Resources Technical Report* (Heritage Environmental Consultants, LLC 2024), of the Proponent's Environmental Assessment (LSPGC 2025), which documents existing conditions within the study area. On behalf of the CPUC, Environmental Science Associates performed a reconnaissance-level biological survey of the Project site on February 27, 2024, to verify site conditions.

The Project includes two HVDC terminals, an approximately 13-mile underground transmission line connecting the HVDC terminals, a 1.2-mile underground transmission line connecting the proposed Grove HVDC Terminal to the existing PG&E Metcalf Substation, and a 100-foot overhead transmission tie line to connect the proposed Skyline HVDC Terminal to the existing PG&E San Jose B Substation. Additionally, PG&E would modify the existing PG&E Metcalf Substation, expand and modify the existing PG&E San Jose B Substation, and add an 800-foot water line under Metcalf Road and U.S. Highway 101 (U.S. 101).

3.4.1.1 Regional Setting

The Project is located in the city of San José and unincorporated Santa Clara County. The Project is in the Central Coast subregion in central–western California and is in the Guadalupe River and Coyote Creek watersheds between the Diablo Range and the Santa Cruz Mountains. Topography in the biological resources study area ranges from about 73 feet above mean sea level (amsl) at

the northern terminus (near where proposed Skyline HVDC Terminal) in Santa Clara Valley to 268 feet amsl near the proposed Grove HVDC Terminal site in Coyote Valley. Coyote Valley is a 7,400-acre alluvial plain located between the Santa Cruz Mountains and the Diablo Range in southern Santa Clara County. Historically, the landscape of both Santa Clara Valley and Coyote Valley were oak woodlands, oak savannas, grasslands, riparian forest, and wetland complexes.

Vegetation Communities

Native and non-native vegetation communities within the biological resources study area include areas that have been disturbed by the construction and maintenance of existing electrical infrastructure, occurring within a framework of roads, commercial and agricultural developments, residences, and other public infrastructure. The vegetation community types described below are based on field observations, the Proponent's Environmental Assessment (LSPGC 2025), descriptions in the California Native Plant Society Manual of California Vegetation Online (CNPS 2025), California Sensitive Natural Communities maps (CDFW 2024a), and National Wetlands Inventory maps (USFWS 2025a). Natural communities were evaluated using NatureServe's Heritage Methodology, the same system used to assign global and State rarity ranks for plant and animal species in the California Natural Diversity Data Base (CNDDB).

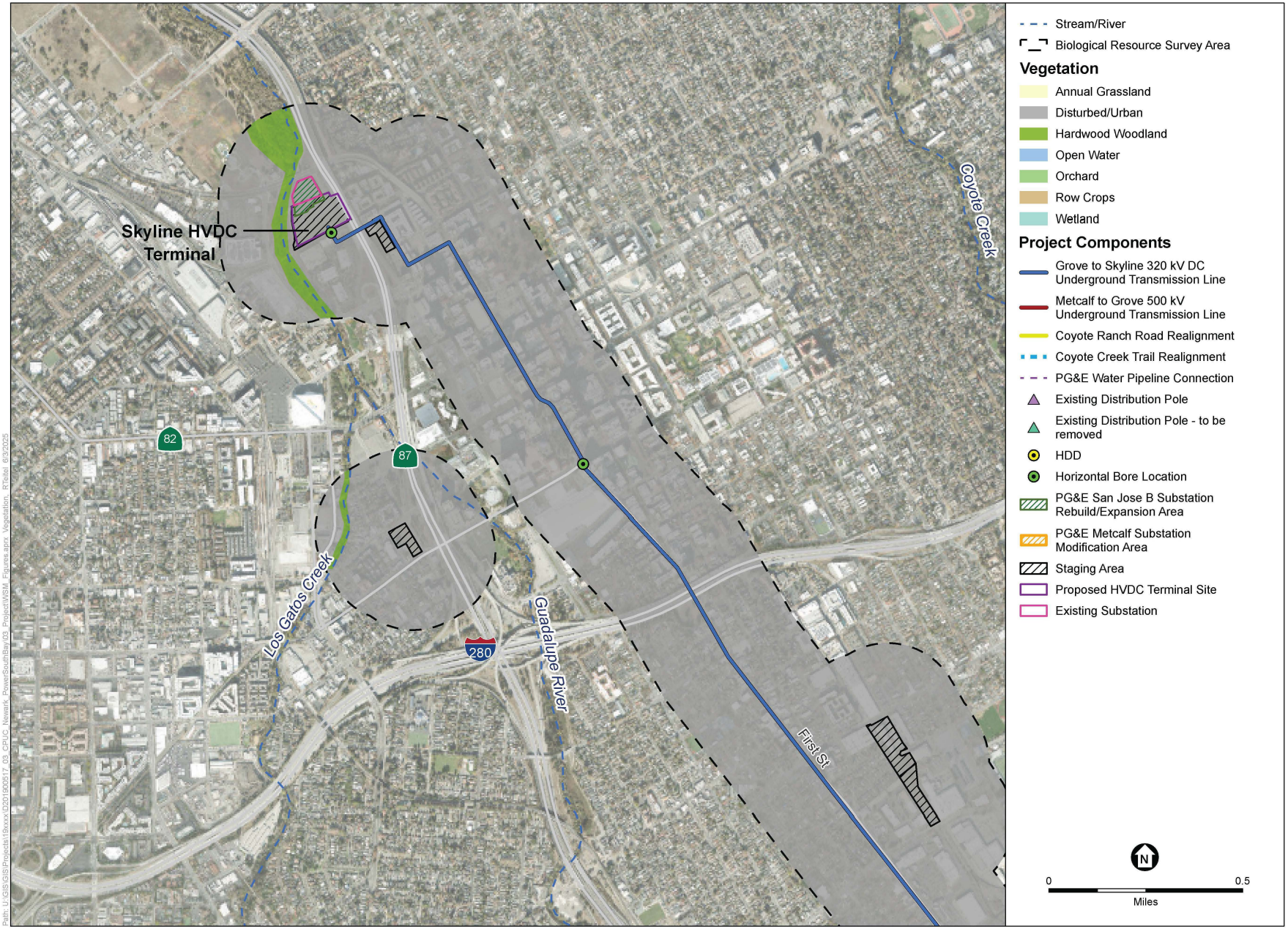
The Project and surroundings are dominated by disturbed areas along the majority of the Grove to Skyline 320 kV direct current (DC) transmission line (Grove to Skyline 320 kV Transmission Line); however, the proposed Metcalf to Grove 500 kV Transmission Line at the southern end of the Project near the existing PG&E Metcalf Substation crosses wetland habitats and will cross underneath channels (**Figure 3.4-1a** through **Figure 3.4-1e**, *Vegetation Communities*, and **Figure 3.4-2a** through **Figure 3.4-2b**, *Aquatic Resources*).

Table 3.4-1 summarizes the approximate acreage of each community and land cover type that was mapped within 1,000 feet of the Project's proposed transmission lines, HVDC terminals, existing PG&E substations, and staging areas. Brief descriptions of each land cover type within the biological resources study area are provided below.

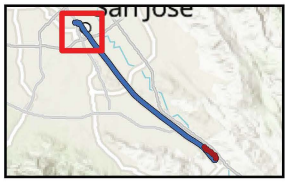
TABLE 3.4-1
VEGETATION COMMUNITIES IN THE BIOLOGICAL RESOURCES STUDY AREA

Vegetation Community of Land Cover Type Name	Acreage (Within Study Area)	Percent of Total Acreage
Annual Grassland	174	4%
Disturbed/Barren	3,564	88%
Orchard	14	<1%
Cropland	72	2%
Riparian (Hardwood Woodland)	161	4%
Wetland	1	<1%
Open Water	74	2%
Total	**4060**	**100%**[1]

NOTE:
1. Percentages may not total due to rounding.
SOURCE: Data compiled by Environmental Science Associates in 2025; LSPGC 2025

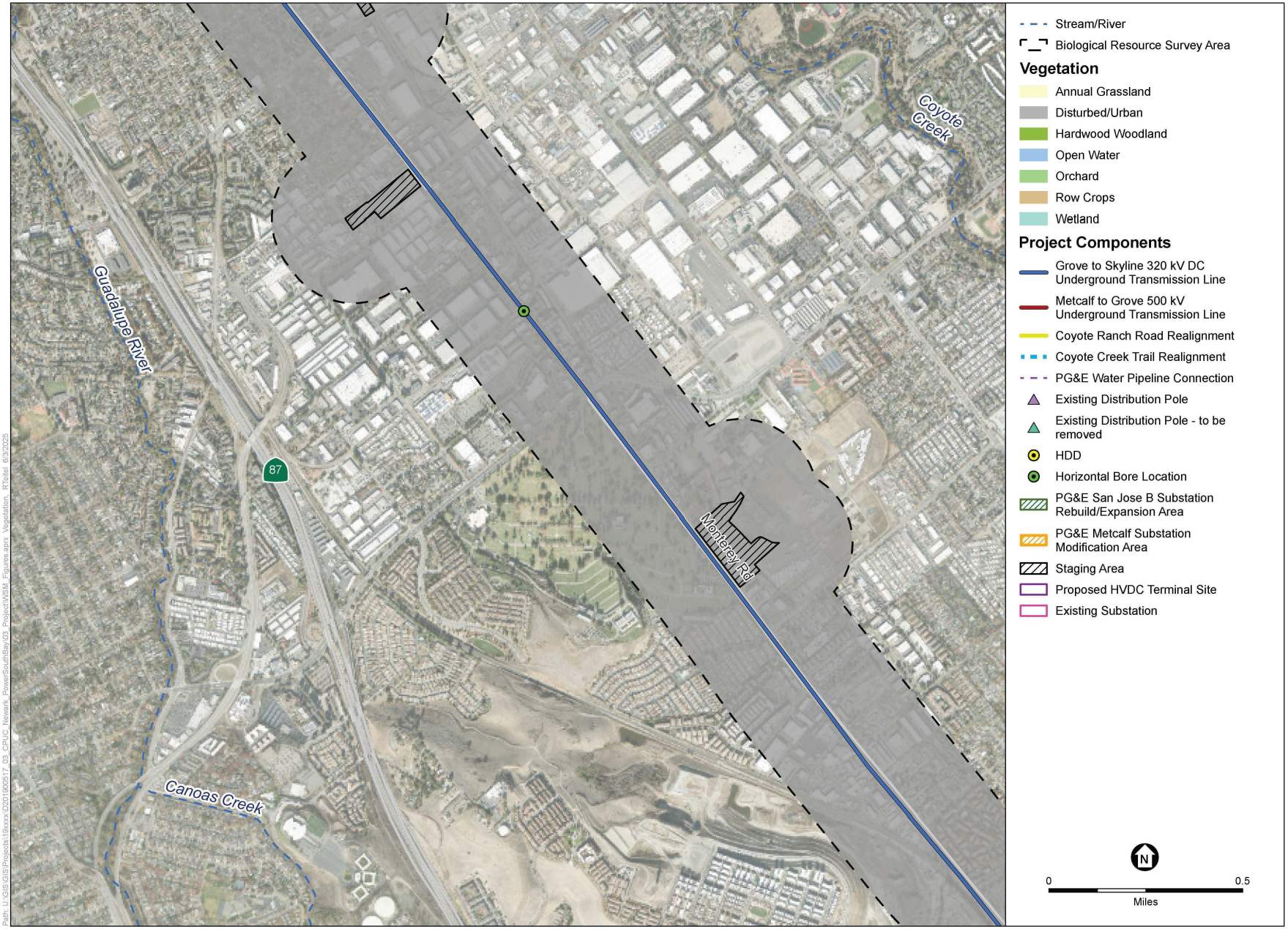


SOURCE: ESA, 2024; CDOC, 2023; Heritage, 2023; LSPGC, 2023

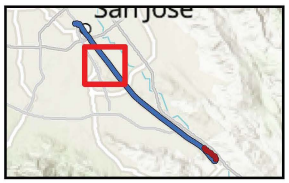


Power Santa Clara Valley Project

Figure 3.4-1a
Vegetation Communities in the Vicinity of the Project Area



SOURCE: ESA, 2024; CDOC, 2023; Heritage, 2023; LSPGC, 2023



Power Santa Clara Valley Project

Figure 3.4-1b
Vegetation Communities in the Vicinity of the Project Area

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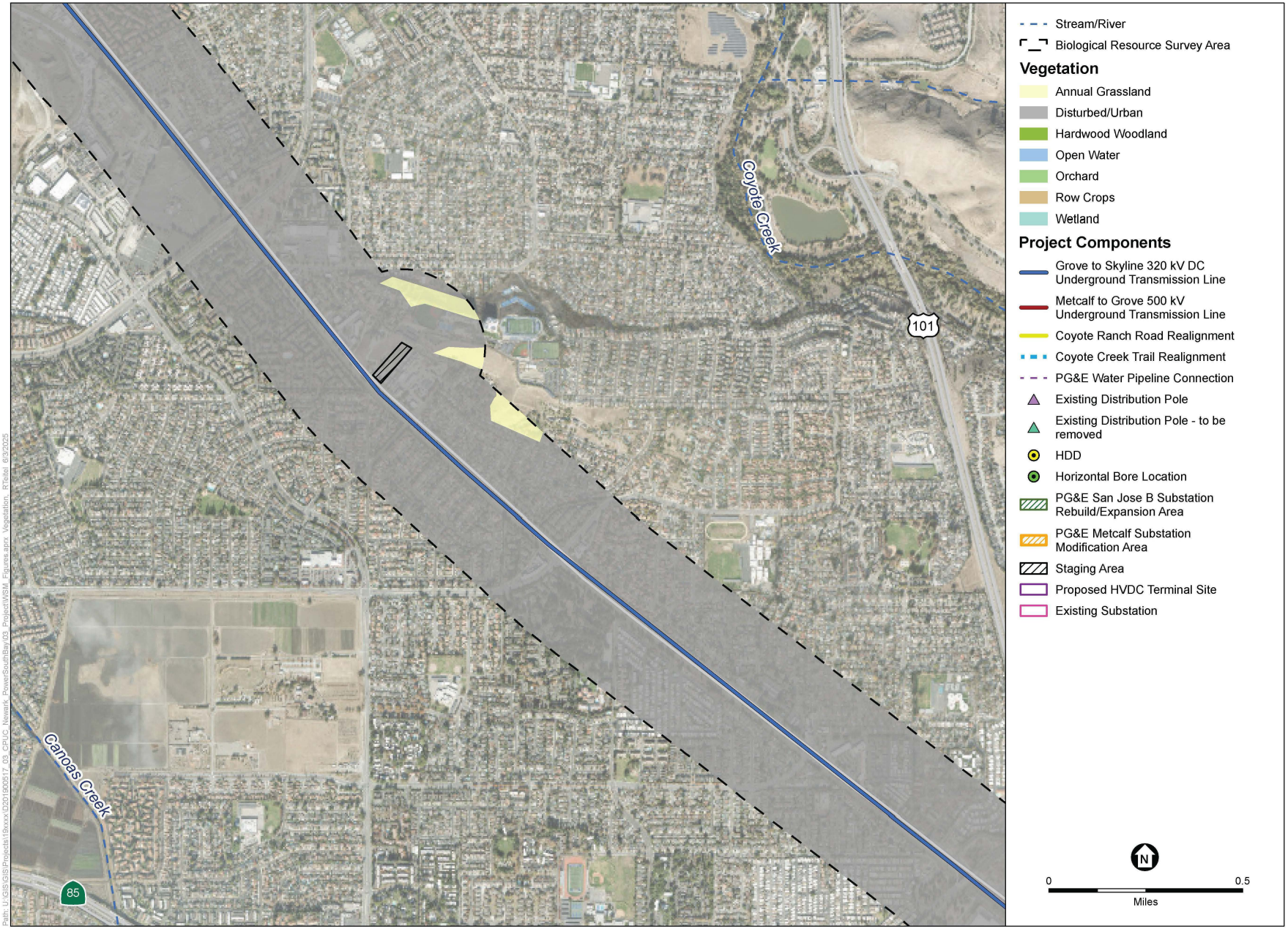
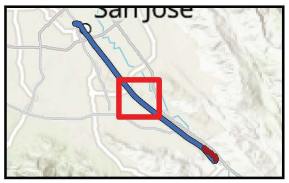


SOURCE: ESA, 2024; CDOC, 2023; Heritage, 2023; LSPGC, 2023



Power Santa Clara Valley Project

Figure 3.4-1c
Vegetation Communities in the Vicinity of the Project Area

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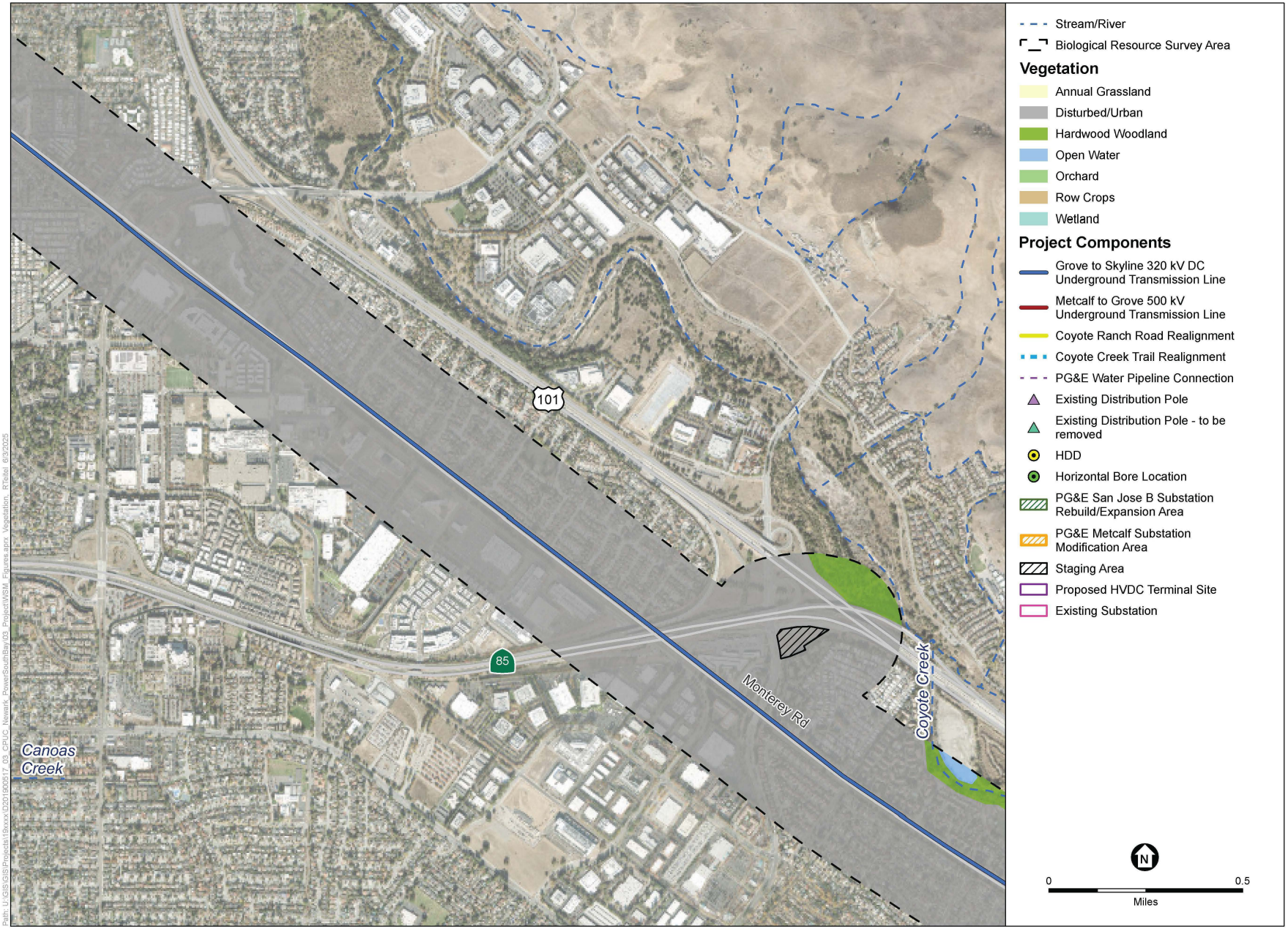

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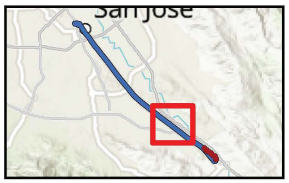

Power Santa Clara Valley Project

Figure 3.4-1d
Vegetation Communities in the Vicinity of the Project Area

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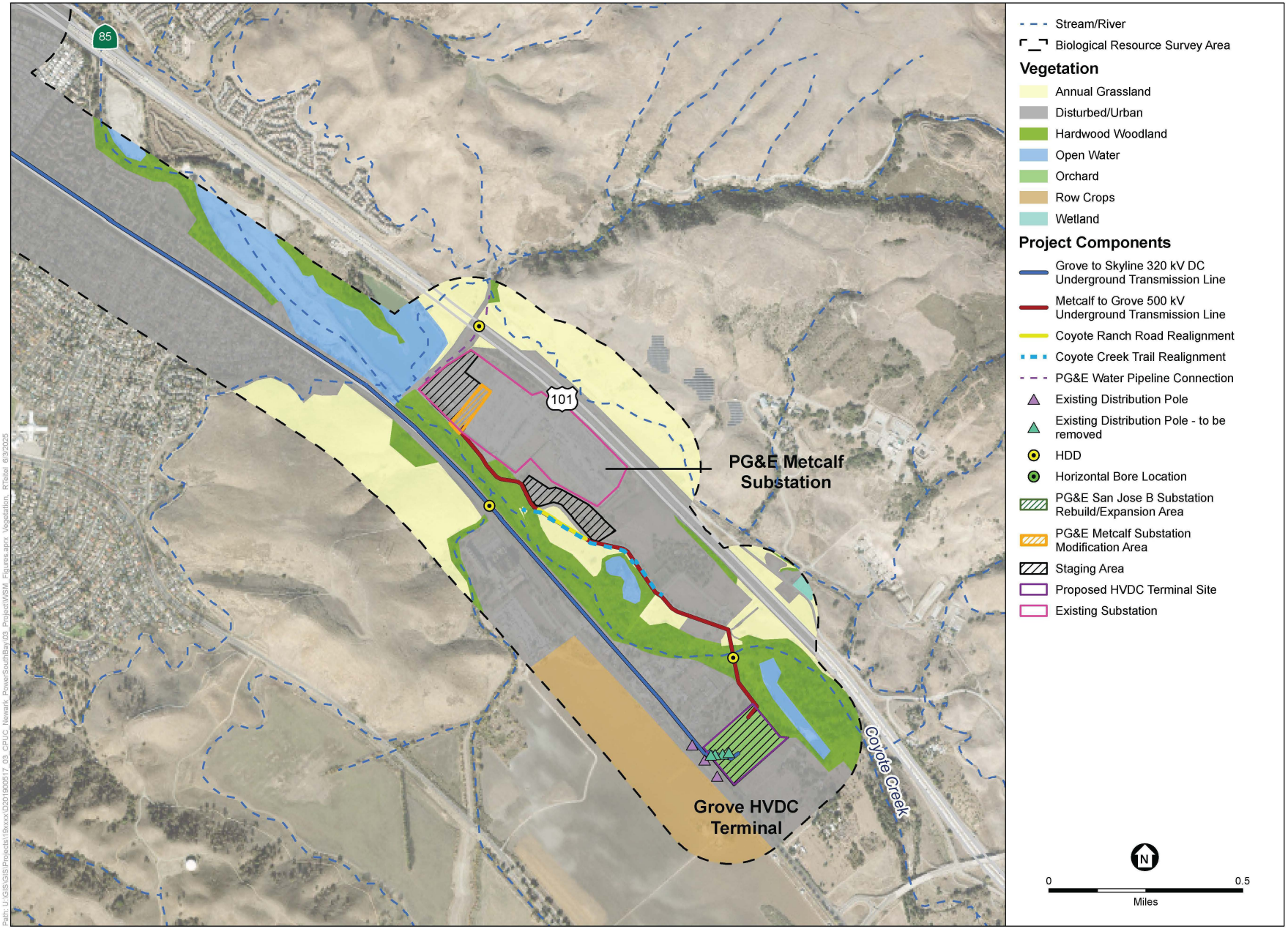
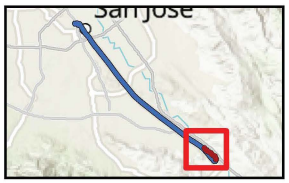


SOURCE: ESA, 2024; CDOC, 2023; Heritage, 2023; LSPGC, 2023



Power Santa Clara Valley Project

Figure 3.4-1e
Vegetation Communities in the Vicinity of the Project Area

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Sensitive Natural Communities

Natural communities are assemblages of plant species that occur together in the same area and are defined by their species composition and relative abundance. Sensitive natural communities are designated by various resource agencies, such as the California Department of Fish and Wildlife (CDFW), or through local policies and regulations. These communities are generally considered to have important functions or values for wildlife or are recognized as declining in extent or distribution and are considered threatened enough to warrant some level of protection. CDFW tracks communities it believes to be of conservation concern through its California Sensitive Natural Community List (CDFW 2024a; Sawyer et al. 2009). Two sensitive natural communities occur on the Project site: hardwood woodland (riparian) and wetland (freshwater marsh). The distribution of these communities on the Project site is outlined in **Table 3.4-2** and discussed under *Riparian* and *Wetlands*.

TABLE 3.4-2
IMPACTS BY VEGETATION COMMUNITY

Vegetation Community of Land Cover Type Name	Total Acreage within Survey Area	Temporary Impact Acreage	Permanent Impact Acreage
Disturbed/Urban	3,564.0	235.8	10.8
Orchard	14.0	6.2	7.4
Hay Crops	72.0	0.0	0.0
Hardwood Woodland	161.0	3.5	<0.1
Annual Grassland	174.0	5.5	0.8
Wetland	1.0	0.0	0.0
Open Water	74.0	0.0	0.0
Total	**4,060.0**	**251.0**	**19.0**

NOTE: Totals in this table may not sum accurately due to rounding.
SOURCE: Data compiled by Environmental Science Associates in 2025; LSPGC 2025

Upland Communities

Disturbed/Barren. Approximately 88 percent of the biological resources study area, the Project transmission line alignment and a 1,000-foot-buffer, consists of the disturbed/barren land cover type (Table 3.4-1). This land cover type has been significantly disturbed by human activities and includes all developed areas (e.g., buildings, roads, parking lots, infrastructure, railways, houses, apartment buildings, lawns, parks), and disturbed areas (e.g., vacant lots). Some decorative or unmanaged vegetation may be present. Sparse non-native and invasive weeds, such as stinkwort (*Dittrichia graveolens*), horseweed (*Erigeron canadensis*), wild oats (*Avena fatua*), Kentucky bluegrass (*Poa pratensis*), and mustard (*Hirschfeldia incana*), may also be present in disturbed areas (LSPGC 2025). Most of the disturbed areas are within urban and suburban locations of greater San José (Figure 3.4-1).

Cropland. Cropland consists of agricultural fields that are tilled, planted, and harvested for row or cover crops. These areas provide poor habitat for birds or terrestrial wildlife due to frequent tillage, which destroys burrows, and removal of vegetation. One cropland area used to grow hay

is in the southeastern portion of the study area on the west side of Monterey Road across from the proposed Grove HVDC Terminal site.

Orchard. Orchard habitats consist of trees planted for agricultural harvest. These trees can provide nesting habitat for birds and are less disturbed than croplands due to reduced ground disturbance. One primarily citrus orchard is within the study area within the footprint of the proposed Grove HVDC Terminal at the southeastern end of the Project alignment.

Annual Grassland. Annual grasslands are dominated by non-native grasses and forbs, such as wild oats, ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), Italian thistle (*Carduus pycnocephalus*), black mustard (*Brassica nigra*), and stinkwort. Some native species, such as purple needlegrass (*Stipa pulchra*) and common fiddleneck (*Amsinckia menziesii*), may also be present (LSPGC 2025). Some of these areas may be disturbed, mowed, and/or grazed but often provide habitat for rodents and other small mammals, reptiles, and ground-dwelling bird species. Annual grassland habitat is present in the hills east and west of the proposed alignment routes, and along Coyote Creek (Figure 3.4-1). Approximately 4 percent of the study area is annual grassland habitat (Table 3.4-1).

Riparian

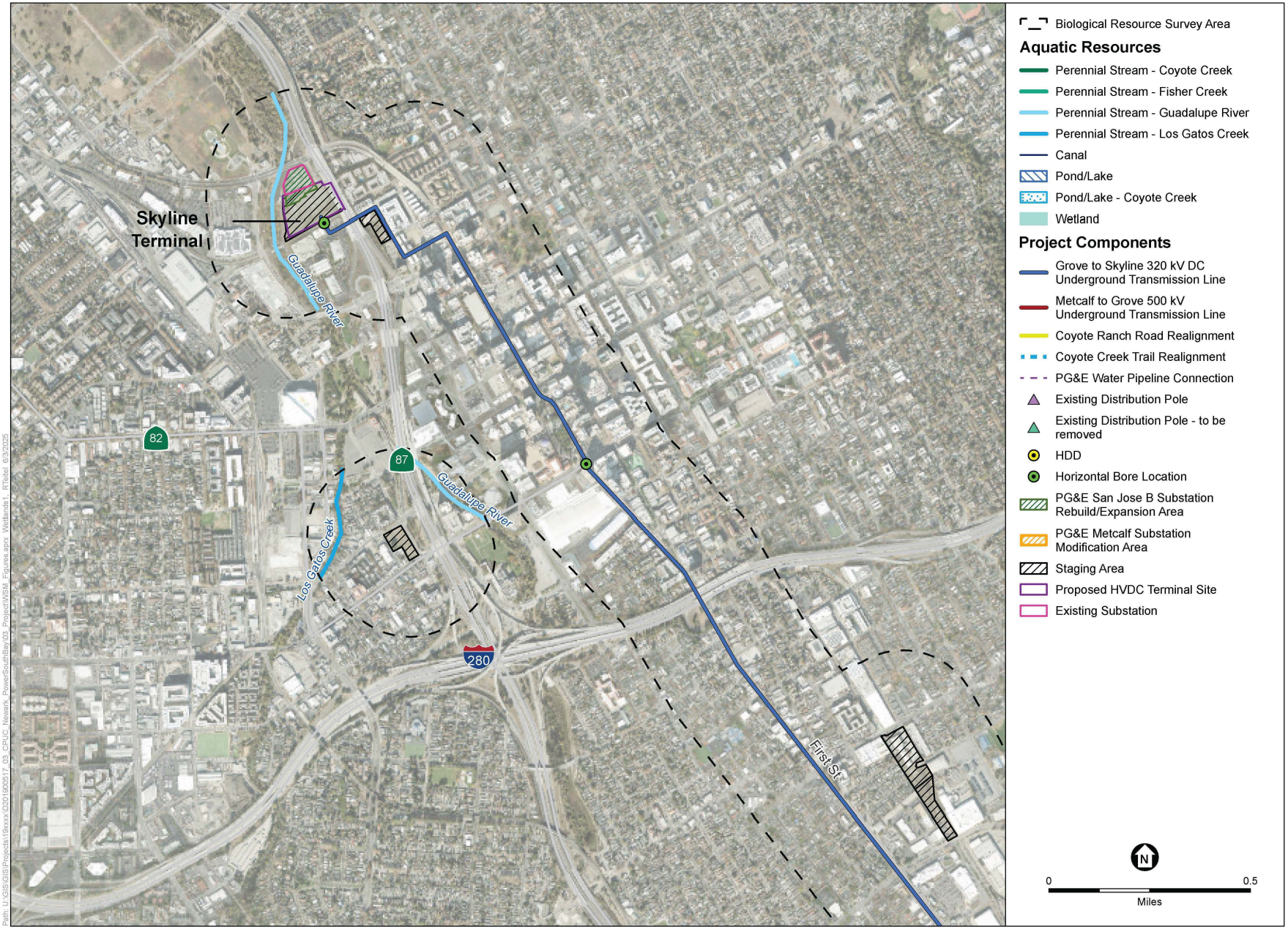
Hardwood Woodland. This habitat covers 4 percent of the biological resources study area and consists primarily of hardwood trees and associated shrubs along streams in riparian areas (Table 3.4-1). Fremont cottonwood (*Populus fremontii*) is the dominant tree species with narrowleaf willow (*Salix exigua*), red willow (*Salix laevigata*), coast live oak (*Quercus agrifolia*), Northern California black walnut (*Juglans hindsii*), western sycamore (*Platanus racemosa*), and California buckeye (*Aesculus californica*). Associated shrub species include Pacific poison oak (*Toxicodendron diversilobum*), coyote brush (*Baccharis pilularis*), elderberry (*Sambucus nigra*), Himalayan blackberry (*Rubus armeniacus*), and mulefat (*Baccharis salicifolia*). The ground cover consists of forbs, such as dove weed (*Croton setigerus*), filaree (*Erodium* sp.), perennial pepperweed (*Lepidium latifolium*), and annual native and non-native grasses. Some wetland plants, such as softstem bulrush (*Schoenoplectus tabernaemontani*), tall flatsedge (*Cyperus eragrostis*), giant reed (*Arundo donax*), and cattail (*Typha latifolia*) also are associated with this land cover type and occur along the margins of the lakes, ponds, and streams.

Wetland

One wetland was identified within the study area, a freshwater marsh on the south end of the survey area northeast of Malech Road and east of U.S. 101, associated with Coyote Creek and its ponds. This area included softstem bulrush, tall flatsedge, giant reed, and cattail vegetation. This cover type represents less than 1 percent of the study area and would be avoided by the Project (LSPGC 2025).

Open Water

Open water habitats are expanses of water associated with lakes and ponds and constitute 2 percent of the study area. These waters are associated with the Guadalupe River, Los Gatos Creek, Fisher Creek, and Coyote Creek, and would be considered waters of the U.S. and of the State. Two percent of the study area consists of open waters (Table 3.4-1).



SOURCE: ESA, 2024; NHD, 2023; Heritage, 2023; LSPGC 2023;

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Figure 3.4-2a
Aquatic Resources in the Vicinity of the Project Area

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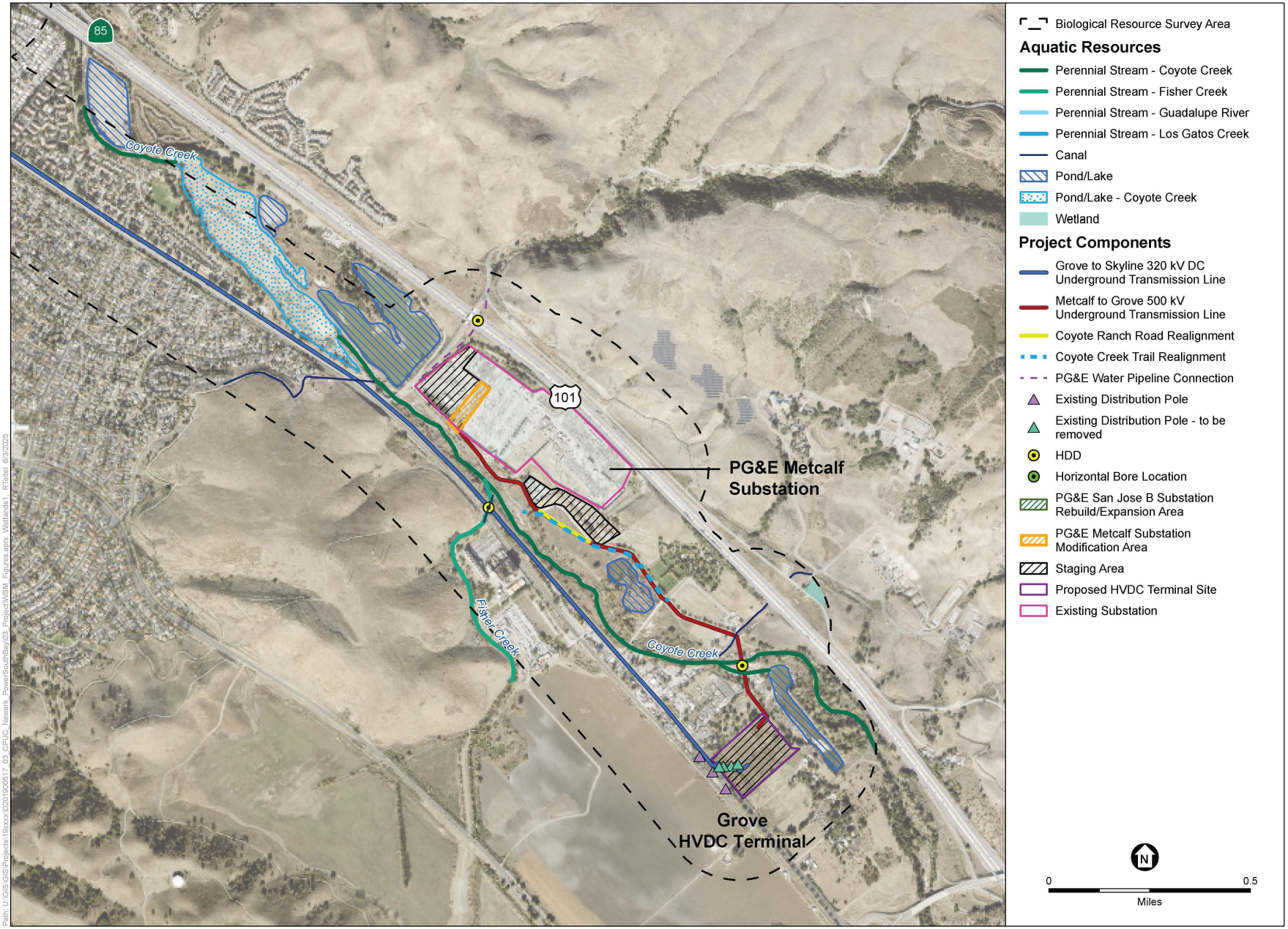

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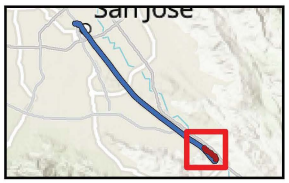

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Figure 3.4-2b
Aquatic Resources in the Vicinity of the Project Area

ESA

3.4.2 Special-Status Species

3.4.2.1 Special-Status Plants

All special-status plant species found within 5 miles of the biological resources study area in the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) database (USFWS 2025), California Native Plant Society (2025), and CNDDB (CDFW 2025) occurrence records were evaluated for the their potential to occur in the vicinity based on the presence of suitable habitat, elevation, and soils (**Appendix C**, *Special-Status Species with Potential to Occur in the Project Area*, and shown on **Figure 3.4-3**, *CNDDB Occurrences within 5 Miles of the Proposed Project*). Four plants were identified with a moderate potential to occur in the biological resources study area:

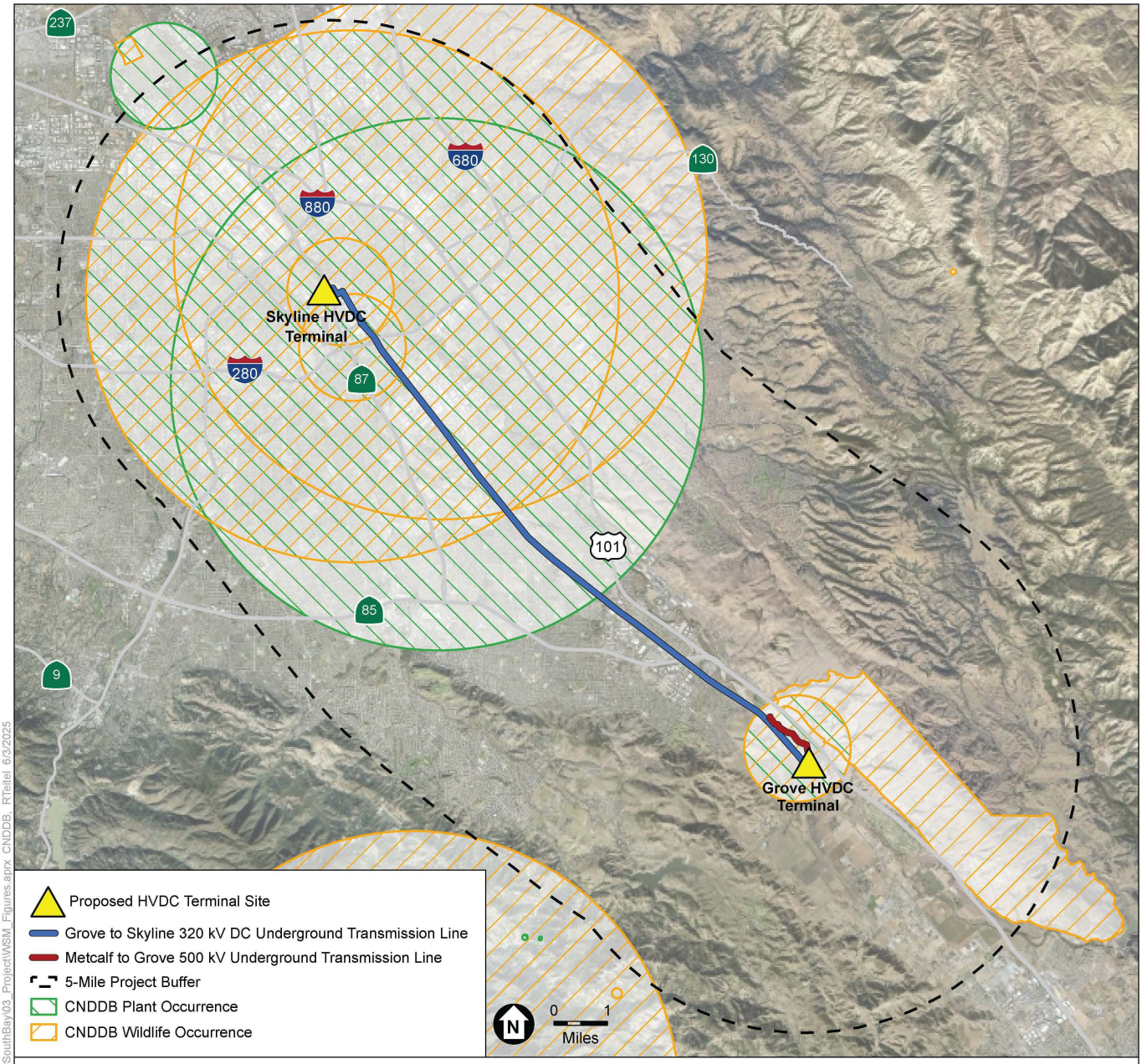
- Tiburon paintbrush (*Castilleja affinis* ssp. *neglecta*)—federally listed as endangered, state-listed as endangered, California Rare Plant Rank (CRPR) 1B.2.
- Mt. Hamilton thistle (*Cirsium fontinale* var. *campylon*)—CRPR 1B.2.
- Santa Clara Valley dudleya (*Dudleya abramsii* ssp. *setchellii*)—federally listed as endangered, CRPR 1B.1.
- Metcalf Canyon jewelflower (*Streptanthus albidus* ssp. *peramoenus*)—CRPR 1B.2.

Tiburon Paintbrush

Tiburon paintbrush (*Castilleja affinis* ssp. *neglecta*) is a federally listed as endangered and California-listed as threatened plant species and has a CRPR of 1B.2. This California endemic species typically occurs in open serpentine slopes in valley and foothill grassland. Known populations are present in Marin, Napa, and Santa Clara counties (CNPS 2025). Potential habitat for Tiburon paintbrush exists in annual grasslands in the study area, especially in the vicinity of the existing PG&E Metcalf Substation, proposed Grove HVDC Terminal, and staging areas 5 and 6, which overlap or are in proximity to serpentine areas (Calflora 2025). Two presumed extant occurrences are southeast of the proposed Grove HVDC Terminal: Occurrence #9, recorded in 2013, is 3.6 miles away in a Waste Management mitigation site in serpentine grassland with a northwest aspect; and Occurrence #7, recorded in 2019, is 4.6 miles away in serpentine grassland among volcanic rocks above Kirby Canyon Landfill (CDFW 2025). Based on the regional occurrences of this species and available habitat within the study area, there is a moderate potential for this species to occur in grassland near the existing PG&E Metcalf Substation, proposed Grove HVDC Terminal, and staging areas 5 and 6.

Mt. Hamilton Thistle

Mt. Hamilton thistle (*Cirsium fontinale* var. *campylon*) has a CRPR of 1B.2. This species is found in seasonal and perennial drainages on serpentine in cismontane woodland, chaparral, and valley and foothill grassland from 75 to 890 meters. Known populations are present in Alameda, Stanislaus, San Mateo, and Santa Clara counties (Calflora 2025). Suitable serpentinite habitat is limited in the study area, but there are occurrences of Mt. Hamilton near the existing PG&E Metcalf Substation and proposed Grove HVDC Terminal. Several recent presumed extant occurrences (Occurrences #7, 46, and 53) are within 0.34 mile of the study area (CDFW 2025).



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CNDDB Occurrences within 5 Miles

Wildlife Occurrences
American badger
Bay checkerspot butterfly
black-crowned night heron
black swift
burrowing owl
California floater
California giant salamander
California red-legged frog
California tiger salamander
coast horned lizard
Cooper's hawk
Crotch's bumble bee
foothill yellow-legged frog
golden eagle
grasshopper sparrow
great blue heron
great egret
hoary bat
Hom's micro-blind harvestman
Jung's micro-blind harvestman
loggerhead shrike
Northern California legless lizard
northwestern pond turtle
obscure bumble bee
Opler's longhorn moth
pallid bat
Salinas kangaroo rat
San Francisco dusky-footed woodrat
San Joaquin kit fox
Santa Cruz black salamander
snowy egret
southern coastal roach
steelhead
Swainson's hawk
Townsend's big-eared bat
tricolored blackbird
western bumble bee
western ridged mussel
white-tailed kite
yellow-breasted chat
yellow rail
Yuma myotis

Plant Occurrences
arcuate bushmallow
big-scale balsamroot
chaparral ragwort
Congdon's tarplant
Contra Costa goldfields
Coyote ceanothus
dwarf soaproot
fragrant fritillary
hairless popcornflower
Hall's bushmallow
Hoover's button-celery
Loma Prieta hoita
Metcalf Canyon jewelflower
most beautiful jewelflower
Mt. Hamilton thistle
pink creamsacs
robust spineflower
saline clover
San Francisco collinsia
Santa Clara red ribbons
Santa Clara Valley dudleya
smooth lessingia
Tiburon paintbrush
woodland woollythreads

SOURCE: ESA, 2024; CDFW, 2024

Power Santa Clara Valley Project

Figure 3.4-3
CNDDB Occurrences within 5 Miles of the Proposed Project

Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur in grassland near the existing PG&E Metcalf Substation, proposed Grove HVDC Terminal, and staging areas 5 and 6.

Santa Clara Valley Dudleya

Santa Clara Valley dudleya (*Dudleya abramsii* ssp. *setchellii*) is a federally listed as endangered plant species and has a CRPR of 1B.1. This species is found in valley and foothill grassland, and cismontane woodland. It grows in rocky serpentine outcrops and on rocks within grassland or woodland and is only found in Santa Clara County (CNPS 2025). Several presumed extant records are near the study area. Occurrence #1, dated 2020, borders the transmission line alignment and is approximately 500 feet from the existing PG&E Metcalf Substation. More extensive populations (Occurrences #4 and 5) are in the hills north and east of the existing PG&E Metcalf Substation and the Grove HVDC Terminal. Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur in grassland near the existing PG&E Metcalf Substation, the proposed Grove HVDC Terminal, and staging areas 5 and 6.

Metcalf Canyon Jewelflower

Metcalf canyon jewelflower (*Streptanthus albidus* ssp. *albidus*) is a federally listed as endangered plant species and has a CRPR of 1B.1. This species is found in valley and foothill grassland. It grows in relatively open areas in dry grassy meadows on serpentine soils and rocky serpentine areas. Metcalf canyon jewelflower is only found in Santa Clara County (CNPS 2025). Several presumed extant records are within 1 mile of the study area. The nearest records, Occurrences #2, 27, and 11, dated 2013 to 2017, are proximate to the existing PG&E Metcalf Substation (CDFW 2025). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur in grassland near the PG&E Metcalf Substation, the proposed Grove HVDC Terminal, and staging areas 5 and 6.

3.4.2.2 Special-Status Fish and Wildlife

Special-status wildlife species found within 5 miles of the Project site were evaluated for their potential to occur on-site based on the presence of suitable habitat (Appendix C). This assessment was based upon review of the USFWS IPaC database (USFWS 2025b) and the CNDDB (CDFW 2025). CNDDB records are shown on Figure 3.4-3, *CNDDB Occurrences within 5 Miles of the Proposed Project*. The following fish and wildlife species were identified with a moderate potential to occur:

- Crotch's bumble bee (*Bombus crotchii*)—State candidate for listing.
- Western bumble bee (*Bombus occidentalis*)—State candidate for listing.
- Monarch butterfly (*Danaus plexippus*)—federal candidate for listing.
- Bay checkerspot butterfly (*Euphydryas editha bayensis*)—federally listed as threatened.
- Large marble butterfly (*Euchloe ausonides ausonides*)— no State or federal protection.
- Southern coastal roach (*Hesperoleucus venustus subditus*)—CDFW Species of Special Concern.

- Steelhead, Central California Coast distinct population segment (DPS) (*Oncorhynchus mykiss irideus*)—federally listed as threatened.
- California tiger salamander (*Ambystoma californiense*)—federally listed as threatened, State-listed as threatened.
- California red-legged frog (*Rana draytonii*)—federally listed as threatened, State Species of Special Concern.
- Northwestern pond turtle (*Actinemys marmorata*)—federally proposed as threatened, CDFW Species of Special Concern.
- Western burrowing owl (*Athene cunicularia hypugaea*)—State candidate for listing, CDFW Species of Special Concern.
- White-tailed kite (*Elanus leucurus*)—CDFW Fully Protected.
- Bald eagle (*Haliaeetus leucocephalus*)—Bald and Golden Eagle Protection Act, State-listed as endangered, CDFW Fully Protected.
- Swainson's hawk (*Buteo swainsoni*)—State-listed as threatened.
- Tricolored blackbird (*Agelaius tricolor*)—State-listed as threatened, CDFW Species of Special Concern.
- American badger (*Taxidea taxus*)—CDFW Species of Special Concern.
- San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*)—CDFW Species of Special Concern.

Crotch's Bumble Bee

Crotch's bumble bee (*Bombus crotchii*) is a candidate species for listing under the California Endangered Species Act (CESA). This species is found in relatively hot and dry grassland and scrub habitats from coastal California east to the crest of the Sierra Nevada and Cascade mountains and south into Mexico. This bumblebee primarily nests underground in colonies. Crotch's bumblebee, like most bumblebees, are generalist foragers and visit a wide variety of flowering plants. Four CNDDB records presumed extant are within 5 miles, dated from 1903 to 2020; one is in grassland habitat in Saint Teresa County Park approximately 3 miles southwest of the existing PG&E Metcalf Substation (CDFW 2025). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur in annual grassland, orchard, or riparian habitat in the biological resources study area.

Western Bumble Bee

Western bumble bee (*Bombus occidentalis*) is a candidate species for listing under CESA. This species is found in mixed woodlands, farmlands, meadows, and grasslands. It nests underground in burrows or hollows and requires habitat with ample floral resources from spring through autumn. CNDDB occurrence records in the study area are imprecise and the most recent one, Occurrence #254, is dated 1979 (CDFW 2025). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur on-site.

Monarch Butterfly

The monarch butterfly (*Danaus plexippus*) is a federal-candidate species (under the federal Endangered Species Act; see Section 3.4.3) and occurs across North America and elsewhere. During the breeding season (late spring through early fall), monarchs lay their eggs on their obligate milkweed host plant (*Asclepias* spp.), and larvae emerge after 2 to 5 days. Larvae develop over a period of 9 to 18 days, feeding on milkweed, then pupate into chrysalis before emerging 6 to 14 days later as an adult monarch butterfly. Monarchs begin migrating in the fall in western North America to overwintering groves along the California coast into northern Baja California and down to central Mexico. Monarchs require specific microclimatic conditions at overwintering sites, including dappled sunlight, high humidity, fresh water, and an absence of freezing temperatures or high winds. The trees most commonly used for roosting include the non-native blue gum eucalyptus (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Cupressus macrocarpa*), but clusters can be found on other tree species as well, such as western sycamore (*Platanus racemosa*) and coast live oak (LSPGC 2025). Within the study area, there is a small amount of potentially suitable habitat for foraging monarchs, and overwintering monarchs could potentially use coast live oak, western sycamore, or other tree species; thus, monarchs have a moderate potential to occur in riparian hardwood.

Bay Checkerspot Butterfly

The bay checkerspot butterfly (*Euphydryas editha bayensis*) is a federally listed as threatened (under the federal Endangered Species Act; see Section 3.4.3) butterfly species only found in the San Mateo and Santa Clara counties, within annual grasslands on serpentine soils that harbor habitat for their host plants. The primary larval food plant is dwarf plantain (*Plantago erecta*). Other larval food plants may be used if the dwarf plantain is dried up, such as purple owl's clover (*Castilleja densiflora*). Nectar plants for adults include California goldfields (*Lasthenia californica*), desert parsley (*Lonatium dissectum*), and tidy-tips (*Layia platyglossa*). These butterflies are known to occur within the Tulare Hill Ecological Preserve and the hillsides on the east side of the Santa Clara Valley, which have been designated as critical habitat. Multiple presumed extant CNDDB records are within 5 miles, including in the vicinity of the existing PG&E Metcalf Substation and the proposed Grove HVDC Terminal.

Suitable habitat for the bay checkerspot butterfly is available in grassland on hills in the vicinity of the existing PG&E Metcalf Substation and the proposed Grove HVDC Terminal, and areas in-between. Butterflies may traverse the annual grasslands en route to habitat areas across the valley (LSPGC 2025). Although Monterey Road is mapped as USFWS-designated critical habitat, this area lacks the physical and biological characteristics of critical habitat needed to support the butterfly; thus, it is not expected to occur there.

Large Marble Butterfly

The large marble butterfly (*Euchloe ausonides ausonides*) presently has no State or federal protection and receives no protection under CEQA. It is included here in response to a 2023 petition by the Xerces Society to list the butterfly under the federal Endangered Species Act. This species was formerly common in the Central Valley, San Francisco Bay-Delta, and lower foothills of the Sierra Nevada but has become much less common for unknown reasons. Both

adult butterflies and caterpillars are found in open habitats, such as grasslands, meadows, sagebrush steppe, montane slopes, and weedy flats as well as parks and weedy areas. Caterpillars feed on common mustards, such as wild radish and black mustard. Suitable habitat is in the vicinity of the existing PG&E Metcalf Substation, the proposed Grove HVDC Terminal, and staging areas. Many of the annual grasslands and disturbed areas will have mustard plants. Numerous records are within 5 miles of the study area (iNaturalist 2025). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur in undeveloped portions of the study area.

Southern Coastal Roach

The southern coastal roach (*Hesperoleucus venustus subditus*) is a CDFW species of special concern. This minnow species is found in the drainages of Tomales Bay, San Francisco Bay, and Monterey Bay and shows a preference for low salinity and smaller waterways. Though they are relatively abundant in streams where they are found and they have a generally broad tolerance for environmental conditions, they are less abundant when non-native fishes are present. Due to their restriction to low salinity water, populations are isolated by watershed and are threatened with extirpation by habitat alteration and non-native competition. Southern coastal roach is known to occur in both Coyote Creek and the Guadalupe River (Leidy 2007). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur in Coyote Creek in the vicinity of the existing PG&E Metcalf Substation and the proposed Grove HVDC Terminal, as well as in the Guadalupe River in the vicinity of proposed Skyline HVDC Terminal.

Central California Coast steelhead

The Central California Coast steelhead (*Oncorhynchus mykiss irideus*) DPS is federally listed as threatened. This DPS includes the fish found in coastal river basins from the Russian River south to Soquel and Aptos Creek, and the drainages of San Francisco Bay and San Pablo Bay, including the Napa River. They are also known to migrate to the South San Francisco Bay, where they spawn in the Guadalupe River and Coyote Creek. Eggs (laid in gravel nests called *redds*), alevins (gravel-dwelling hatchlings), fry (juveniles newly emerged from stream gravels), and young juveniles rear in freshwater until they become large enough to migrate to the ocean. In coastal California, steelhead usually live in freshwater for one to 2 years, then spend an additional 2 or 3 years in the ocean before returning to their natal streams to spawn. Adult steelhead typically migrate to tributaries of San Francisco Bay between November and April, with migration peaking in January and February (Shapovalov and Taft 1954). Adult steelhead are generally not present in streams between May and October. Steelhead select spawning sites that contain gravel substrate and have sufficient flow velocity to maintain circulation through the gravel and provide a clean, well-oxygenated environment for incubating eggs. Steelhead fry generally rear in edgewater habitats and move gradually into pools and riffles as they grow larger.

Marginally suitable habitat for steelhead is present in the Guadalupe River and Coyote Creek. National Marine Fisheries Service (NMFS)–designated critical habitat for the Central California Coast steelhead DPS occurs along Coyote Creek and the Guadalupe River in the study area. Historically, the Guadalupe River watershed supported a steelhead run, but due to its aridity, it was likely smaller than those supported in the larger San Francisco Bay tributaries, such as

Alameda Creek (Leidy et al. 2005). Coyote Creek's steelhead run is reduced from its historic levels due to human activities degrading spawning and rearing habitats and disrupting and impeding steelhead migration (Leidy et al. 2005). Therefore, steelhead have a moderate potential to occur in Coyote Creek at the location where the proposed Metcalf to Grove 500 kV Transmission Line would cross beneath Coyote Creek.

California Tiger Salamander

California tiger salamander (*Ambystoma californiense*) is a federally listed and State-listed as threatened species (Central California DPS). This species utilizes both aquatic and terrestrial habitats, reproducing in vernal pools and other seasonal ponds, including livestock ponds, typically from November through April, after triggering rain events. The larvae mature in the ponds then metamorphose into terrestrial salamanders, which occupy small mammal burrows in grassland, oak savanna, or oak woodland habitats, before migrating up to 1.3 miles to a breeding location. California tiger salamander occurrences have been recorded in the vicinity of the study area on the east and west sides of the valley (CDFW 2025). Dispersing California tiger salamanders have some potential to use the orchard property at the proposed Grove HVDC Terminal in suitable burrows. Coyote Creek may be considered an impediment to California tiger salamander movement due to high winter flows, dense riparian vegetation, absence of typical rodent burrow refugia, steep banks, and a concentration of predators, such as fish, bullfrogs, and herons (LSPGC 2025). The presence of predatory fish or breeding bullfrog populations precludes breeding by California tiger salamander in permanent ponds (USFWS 2017).

Numerous records of California tiger salamander are within the study area. CNDDB records closest to the study area include Occurrences #462, 465, and 1062, dated 1996 to 2000, located north of the existing PG&E Metcalf Substation and east of U.S. 101 (CDFW 2025). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur on undeveloped lands near the existing PG&E Metcalf Substation and the proposed Grove HVDC Terminal.

California Red-Legged Frog

The California red-legged frog (*Rana draytonii*) is federally listed as threatened and is a CDFW species of special concern. It breeds in quiet, slow-moving streams, ponds, or marsh communities with emergent vegetation or dense riparian vegetation. This species may disperse up to 2 miles between suitable aquatic habitat areas, but typically it is found in or within 300 feet of aquatic habitat. This species prefers slow-moving freshwater or pond habitat. Known populations of California red-legged frog occur on the east side of Coyote Valley and east of U.S. 101 (CDFW 2025). Coyote Creek and Coyote Valley may provide dispersal and foraging and potential breeding habitat for California red-legged frog, although surveys in 2019 from Metcalf Road upstream to Anderson Dam were negative, potentially because of fish and bullfrog occurrences. Additionally, Coyote Ranch Pond was listed as a potential breeding site, but no California red-legged frogs were observed in 2019. Within the study area, California red-legged frog has moderate potential to occur in the vicinity of the proposed Metcalf to Grove 500 kV Transmission Line, which crosses under Coyote Creek, and associated upland dispersal areas, such as within the orchard property at the proposed Grove HVDC Terminal (LSPGC 2025).

Northwestern Pond Turtle

Northwestern pond turtle (*Actinemys marmorata*) is federally proposed for listing as a threatened species and is a CDFW Species of Special Concern. This species is normally associated with permanent ponds, lakes, streams, irrigation ditches, or permanent pools along intermittent streams and requires basking sites and suitable upland habitat for egg laying. Northwestern pond turtles can mate throughout spring, summer, and fall, with nest sites typically within 300 feet of water, and females sometimes move up to 0.3 mile to find a suitable nest site, which typically are in loose, sandy soils with low disturbance. Both sexes overwinter in similar soil, and hatchlings, after they emerge from the eggs in fall, often remain in their nest through their first winter. This species is omnivorous and can tolerate full-strength seawater for short periods but is normally found in freshwater (Thomson et al. 2016).

Suitable habitat for the northwestern pond turtle can be found in the marginal stream and riparian habitat along Coyote Creek, as well as within freshwater marsh and ponds. The nearest presumed extant CNDDB occurrence records (578, 1445, 1446, 1447, and 1451, dated from the 1970s through 2020) are located in association with Coyote Creek between Bernal Road and Bailey Avenue near the existing PG&E Metcalf Substation and the Grove HVDC Terminal (CDFW 2025). Records (Occurrences 1618 and 1619, dated 2013 to 2023) of northwestern pond turtle are also near the proposed Skyline HVDC Terminal in association with Guadalupe River (CDFW 2025). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur in the vicinity of perennial water sources along the alignment of the proposed Metcalf to Grove 500 kV Transmission Line. Additionally, there is moderate potential for this species to occur in the immediate vicinity of Coyote Creek and in the vicinity of the Guadalupe River near proposed Skyline HVDC Terminal and staging areas 10, 11, and 12.

Western Burrowing Owl

Western burrowing owl (*Athene cunicularia hypugaea*) is a State candidate for listing under CESA and a CDFW Species of Special Concern. This subspecies is a California resident that prefers open annual or perennial grasslands and disturbed sites with existing burrows, elevated perches, large areas of bare ground or low vegetation, and few visual obstructions. Ground squirrel colonies often provide a source of burrows and are typically located near water and areas with large numbers of prey species, primarily insects. Breeding takes place between February and August, peaking in April and May.

Numerous presumed extant CNDDB occurrence records are within the study area, including Occurrence 341, dated 1990 through 2009, which is located at the San José Mineta International Airport about 1 mile northwest of proposed Skyline HVDC Terminal; Occurrences 211 and 1034, 1993 and 2007, respectively, in annual grassland southwest of Oak Hill Funeral Home and Memorial Park at Monterey Road and Curtner Avenue; and Occurrences 321 (1999 through 2015), 2030 (2012), and 2031 (2013), which are located near the PG&E Metcalf Substation and the proposed Grove HVDC Terminal (CDFW 2025). Therefore, western burrowing owls have moderate potential to occur both as wintering (non-breeding) or breeding birds in or near the study area within annual grassland habitat.

White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is a CDFW Fully Protected species (detailed in Section 3.4.3). This species is found throughout California in a range of habitats, including marshes, grassland, and oak woodlands, and commonly perches on top of treetops, wires, and fence posts. The white-tailed kite typically nests in the upper third of trees that can be anywhere from 10 feet to 160 feet tall, generally in open country and growing in isolation. Suitable foraging habitat for white-tailed kites is present throughout the study area as riparian, annual grasslands, and wetland habitats. Nesting habitat, which typically includes trees growing in isolation or along edge habitats, is more limited within these habitat classifications. Six presumed extant occurrence records (Occurrences 172 to 177, dated 2008 to 2012) are near the existing PG&E Metcalf Substation and the proposed Grove HVDC Terminal (CDFW 2025). Therefore, white-tailed kite has moderate potential to nest in suitable trees in the study area.

Bald Eagle

Bald eagle (*Haliaeetus leucocephalus*) is State-listed as endangered, a CDFW Fully Protected species, and is protected under the Bald and Golden Eagle Protection Act. This species is found around lakes, reservoirs, and rivers throughout California and is a non-breeding visitor to rangelands and coastal wetlands. Bald eagles nest in tall trees in mountain and foothill forests and woodlands overlooking water and exhibit strong site fidelity. They feed primarily on fish that they catch or pirate from other birds but also will feed on waterfowl, turtles, rabbits, snakes, other small animals, and carrion. There is some suitable habitat in the vicinity of Coyote Creek with suitable nest trees, and foraging habitat in the creek itself or in the ponds and lakes nearby. One bald eagle individual was observed flying over Coyote Creek near the existing PG&E Metcalf Substation, but no nests were observed during surveys (LSPGC 2025). Therefore, bald eagles have moderate potential to nest near water in the study area.

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is a State-listed as threatened bird that breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. This species requires adjacent suitable foraging areas, such as grasslands, or alfalfa or grain fields supporting rodent populations. Most of the Swainson's hawks in California breed in the Central Valley or Great Basin bioregions and the majority occur in Sacramento, Yolo, Solano and San Joaquin counties (CDFW 2016). This species may forage over the survey area, but suitable nesting habitat is limited to the area near the existing PG&E Metcalf Substation and the proposed Grove HVDC Terminal. Nesting Swainson's hawk has been documented (Occurrence #2667) from 2013 to 2021 about 0.5-mile southeast of the proposed Grove HVDC Terminal (CDFW 2025). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur in annual grassland, orchard, or riparian habitat in the southern end of the study area.

Tricolored Blackbird

The tricolored blackbird (*Agelaius tricolor*) is a State-threatened bird species that occupies dense, marsh vegetation. The geographic range of the tricolored blackbird is restricted to California 's Central Valley and surrounding foothills and coastal and inland localities in southern and central

California. Emergent vegetation is used for nesting in large, contiguous blocks; small, isolated patches and more narrow strips are generally avoided. Foraging occurs in the vicinity of nesting areas in annual grassland fields, agricultural areas, oak woodlands, and pasture areas. They feed on grains, seeds, and invertebrates. Within the Project impact areas, there is a small amount of potentially suitable habitat along Coyote Creek in the vicinity of the proposed Metcalf to Grove 500 kV Transmission Line. Tricolored blackbird was documented nesting near the existing PG&E Metcalf Substation in 1983 and 1994 (Occurrence 849) (CDFW 2025). Suitable nesting habitat could be present in the ponds and lakes associated with Coyote Creek, and individuals could forage in this area. Thus, this species has moderate potential to occur in ponds and lakes associated with Coyote Creek.

American Badger

The American badger (*Taxidea taxus*) is a CDFW species of special concern that typically prefers open areas in relatively dry grasslands, open forests, and creosote bush scrub, as well as occasionally agricultural land. Badgers are burrowing species that prefer areas with sandy/loamy, loose soils where burrowing is easier or where burrows already exist. Badgers are carnivores, feeding primarily on rodents but sometimes eating reptiles, insects, or carrion. Numerous known occurrences of American badger are in the vicinity of the study area, primarily to the southeast on CNDDB records (CDFW 2025). There is a moderate potential that this species could occur in any of the natural habitat types within the study area. Loamy soils exist in the southeast portion of the study area that would be suitable for burrowing. No badgers or suitable burrows were observed during field surveys (LSPGC 2025). Numerous presumed extant CNDDB occurrence records are within the study area, clustered at the south end in and near Coyote Valley, including Occurrence 551 (dated 2014) and 635 (dated 2021), which are about 0.35 mile northeast of the Project site near Bernal Road; Occurrence #548 (dated 2010), which is located about 0.6 mile southeast of the proposed Grove HVDC Terminal; Occurrence #555 (dated 2008), which is located between Metcalf Energy Center and the existing PG&E Metcalf Substation; and Occurrence #637 (dated 2020), which is located about 800 feet from the proposed Metcalf to Grove 500 kV Transmission Line. Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur in annual grassland, orchard, or riparian habitat of the study area.

San Francisco Dusky-Footed Woodrat

San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) is a CDFW species of special concern that resides in habitats of moderate canopy with a moderate to dense understory. Although this species may prefer chaparral and redwood habitats, it is also found in riparian habitats and other moist locations. It constructs nests of shredded grass, leaves, and other material. There is one occurrence (Occurrence #29) in the study area from 2008 at the intersection of Monterey Road and Metcalf Road, immediately west of the PG&E Metcalf Substation, in red willow (*Salix laevigata*) mixed with large patches of giant reed (*Arundo donax*). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur in riparian habitat within the study area.

3.4.2.3 Critical Habitat

USFWS-designated critical habitat for the bay checkerspot butterfly is located on the east and west side of the biological resources study area near the existing PG&E Metcalf Substation and extending into Monterey Road, and NMFS-designated critical habitat for the Central California Coast DPS of steelhead along Coyote Creek and the Guadalupe River. Additionally, there is designated critical habitat for the California tiger salamander approximately 2 miles to the east and west of the study area in the foothills of the Santa Clara Valley and designated critical habitat for the California red-legged frog on the east side of the valley (USFWS 2025b).

3.4.2.4 Wildlife Movement and Corridors

Wildlife movement corridors are considered an important ecological resource by CDFW, by USFWS, and under CEQA. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas, such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors, allowing animals to move between various locations within their range. Topography and other natural factors, combined with human disturbance or urban development, can fragment or separate large open-space areas and wildlife habitats, impeding wildlife movement between areas of suitable habitat. This fragmentation creates isolated "islands" of vegetation that may not provide sufficient area to accommodate sustainable populations and can adversely affect genetic and species diversity. Movement corridors lessen the effects of this fragmentation by allowing animals to move between remaining habitats, facilitating genetic exchange between separate populations.

CDFW's California Essential Habitat Connectivity online data viewer provides a resource for viewing statewide areas of natural landscape blocks, the areas that connect these landscape blocks, and areas that are important for biological conservation (CDFW 2024b).

Within the city of San José, there are no Essential Connectivity Areas; however, there is a large area of Essential Connectivity Area from approximately Bernal Road along Monterey Road to the eastern end of the biological resources study area (CDFW 2024b). This area acts as a linkage across the Santa Clara Valley floor between the Diablo Range to the east and the Santa Cruz Mountains to the west. The highways in the vicinity of this linkage are identified as wildlife movement barriers, but there are multiple culverts and bridges under the highways that could be used by wildlife and have been documented as terrestrial wildlife movement corridor (City of San José 2024b) Additionally, Coyote Creek is identified as a wildlife movement connection (CDFW 2024b). This area acts as a local movement corridor for various terrestrial species and aquatic species.

The Santa Clara Valley Open Space Authority was created by the California Legislature as an independent special district in 1992 (Public Resources Code Section 35100 et seq.). The Open Space Authority notes the importance of the valley as a "resource of statewide significance" and the interest in promoting conservation and restoration of the valley, as expressed in the Coyote Valley Conservation Program (Public Resources Code Section 35180 et seq.). The Open Space Authority reports that the Peninsula Open Space Trust Coyote Valley Wildlife Connectivity

Planning Project is underway to identify and plan for wildlife crossings and other wildlife corridor enhancements along Monterey Road and U.S. 101. Additionally, the Open Space Authority has identified the location of the proposed Grove HVDC Terminal as a potential site for restoration and connectivity improvement (Parkin 2024).

The Santa Clara Valley Open Space Authority and Conservation Biology Institute (2017) identified the valley as a landscape linkage for plants and wildlife between the Santa Cruz Mountains and the Diablo Range, with movement pathways for mammals, amphibians, and reptiles from the Diablo Range to the east to the Santa Cruz foothills to the west. One of the main linkages is Fisher Creek, which links the Santa Cruz foothills across the valley floor, under Monterey Road through the Monterey Road/Fisher Creek culvert into the Coyote Creek Parkway, along Coyote Creek, and then under U.S. 101 to the Diablo Range (LSPGC 2025). These studies also identified Monterey Road as a barrier to wildlife movement due to a lack of safe pathways under the road. The City of San José published the Coyote Valley Corridor Study Baseline Assessment in 2024 (City of San José 2024b). This report studied the current uses and planning for the corridor and emphasized that Coyote Creek is an important wildlife corridor to the regional movement of wildlife species, and a "spine" of biological resources. Stakeholders recommend these corridors be protected via regulations, such as wider setbacks and the prevention of further barriers to wildlife movement in Coyote Valley. Although Coyote Creek was identified by CDFW as a local wildlife movement corridor, U.S. 101 is identified as a significant impediment to movement (CDFW 2024b). The proposed Grove HVDC Terminal site is located within the approximately 5-mile wide north–south wildlife movement corridor that crosses Monterey Road and U.S. 101 between the cities of San José and Morgan Hill in the CDFW Terrestrial Connectivity Areas of Conservation Emphasis dataset; however, the proposed Grove HVDC Terminal site is not within CDFW's California Bay Area Linkage Network (CDFW 2024b).

The Project lies within the Pacific Flyway, an important north–south migration corridor that runs along the Pacific coast of the Americas from Alaska to Patagonia, including all of North America lying west of the Rocky Mountains. The Pacific Flyway links breeding grounds to the north with wintering areas to the south and is used by many different species of birds during migration. The southeastern end of the biological resources study area contains significant water resources that could be used by migrating waterfowl and contains potential foraging areas during migration for a variety of bird species. The southeastern end of the study area may also provide potential wildlife nursery sites within riparian woodland and annual grassland habitat types (Heritage Environmental Consultants, LLC 2024).

3.4.3 Regulatory Setting

3.4.3.1 Federal

Federal Endangered Species Act

The federal Endangered Species Act (FESA) (United States Code Title 16, Sections 1531–1544 [16 USC 1531–1544]) protects listed plant, fish, and wildlife species from harm or take. *Take* is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or degradation

that directly results in the death or injury of a listed fish and wildlife species. An activity can be defined as take even if it is unintentional or accidental. Listed plant species are provided less protection than listed fish and wildlife species. Listed plant species are legally protected from take under FESA only if they occur on federal lands or if the project requires a federal action, such as a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers (USACE).

USFWS has jurisdiction over wildlife and freshwater fish species that are federally listed as threatened or endangered under FESA, while NMFS has jurisdiction over marine species and anadromous fish that are federally listed as threatened or endangered.

FESA Section 7(a)(2) requires consultation with USFWS or NMFS if a federal agency undertakes, funds, permits, or authorizes (termed the *federal nexus*) any action that may affect endangered or threatened species or designated critical habitat. For projects that may result in the incidental take of threatened or endangered species, or critical habitat, and that lack a federal nexus, a Section 10(a)(1)(b) incidental take permit (ITP) can be obtained from USFWS and/or NMFS. To receive a permit, the Applicant must develop a habitat conservation plan (HCP) for approval by USFWS or NMFS. The issuance of an ITP requires the USFWS or NMFS to go through internal Section 7(a)(2) consultation.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) (16 USC 703 et seq.) is the domestic law that affirms and implements a commitment by the United States to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. Unless and except as permitted by regulations, the MBTA states that without a permit issued by the U.S. Department of the Interior, it is unlawful to pursue, hunt, take, capture, or kill any migratory bird. The law also applies to the intentional disturbance and removal of nests occupied (i.e., active nests) by migratory birds or their eggs during the breeding season. The removal of inactive nests that are not protected by other federal regulations (e.g., FESA, Bald and Golden Eagle Protection Act) does not constitute "take" under the MBTA and would not conflict with regulation.

On December 22, 2017, under Solicitor's Opinion M-37050, the U.S. Department of the Interior redefined *incidental take* under the MBTA, stating that "the MBTA's prohibition on pursuing, hunting, taking, capturing, killing, or attempting to do the same applies only to direct and affirmative purposeful actions that reduce migratory birds, their eggs, or their nests, by killing or capturing, to human control" (DOI 2017). Under this definition, the federal MBTA's definition of take does not prohibit or penalize the incidental take of migratory birds that results from actions that are performed without motivation to harm birds.

On January 7, 2021, USFWS (an agency within the U.S. Department of the Interior) published a "final rule" (referred to herein as the "MBTA rule") defining incidental take as described previously in this section. On February 5, 2021, USFWS postponed the effective date of the MBTA rule to March 8, 2021, and requested public comments to inform its review of the rule and determine whether a further extension of the effective date would be necessary (*Federal Register* Volume 86, Number 25, pp. 8715–8717, February 9, 2021).

On March 8, 2021, the U.S. Department of the Interior rescinded Solicitor's Opinion M-37050 on the MBTA, and the department has yet to issue a replacement rule. However, CDFW issued an advisory in 2018 affirming that California law continues to prohibit the incidental take of migratory birds (CDFW 2018). All native bird species that occur within the Project area are protected by the MBTA.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC 668–668c) makes it illegal to trade in any bald eagle or golden eagle or parts thereof. This law provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The law defines *take* as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment. Under this law, inactive nests belonging to either species are protected.

Clean Water Act

Section 404 of the Clean Water Act

Waters of the U.S. are defined in the Code of Federal Regulations (Title 33, Section 328.3[a], and Title 40, Section 230.3[s]) as rivers, streams, mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters. These waters fall under USACE jurisdiction under Section 404 of the Clean Water Act. Additionally, USACE regulates navigable waters under Section 10 of the Rivers and Harbors Act. *Navigable waters* are defined as those waters that are subject to the ebb and flow of the tide or that are presently used, have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

3.4.3.2 State

California Endangered Species Act

Under CESA, CDFW is responsible for maintaining a list of threatened and endangered species (California Fish and Game Code Section 2070 et seq.). The department also maintains a list of *candidate species*, which are species formally under review for addition to either the list of endangered species or the list of threatened species.

CESA prohibits the take of plant and animal species that the California Fish and Game Commission has designated as either threatened or endangered in California. In the context of this regulation, *take* means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill a listed species (California Fish and Game Code Section 86). The prohibitions against take also apply to candidates for listing under CESA. However, CESA Section 2081

allows CDFW to issue permits for the minor and incidental take of species by an individual or permitted activity listed under the act. Unlike the FESA provision, species that are candidates for State listing are granted the same protections as listed species under CESA.

California Fish and Game Code

Section 1600

CDFW regulates streambeds, their banks, and riparian habitat under Section 1600 of California Fish and Game Code. Alteration to streambeds, banks, and/or riparian habitat requires a Lake and Streambed Alteration Agreement from CDFW before the initiation of such work.

Fully Protected Species

Certain species are considered *Fully Protected*, which means that the California Fish and Game Code explicitly prohibits all take of individuals of these species, except take permitted for scientific research. Fully protected amphibians and reptiles, fish, birds, and mammals are listed in California Fish and Game Code Sections 5050, 5515, 3511, and 4700, respectively. It is possible for a species to be protected under the California Fish and Game Code but not be considered Fully Protected. For instance, mountain lion (*Puma concolor*) is protected under Section 4800 et seq. but is not a Fully Protected species.

Sections 3503 and 3503.5

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the code or any regulation made pursuant thereto. Section 3503.5 of the code prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests (active and inactive) and eggs. Migratory non-game birds and their nests (active and inactive) are protected under Section 3800, and other specified birds are protected under Section 3505. California Fish and Game Code Section 3513 adopts the federal definition of migratory bird take, defined by the Secretary of the Interior under provisions of the MBTA.

Porter-Cologne Water Quality Control Act

The State Water Resources Control Board and San Francisco Bay Regional Water Quality Control Board have jurisdiction over waters of the State under the Porter-Cologne Water Quality Control Act. *Waters of the State* are broadly defined as “any surface water or groundwater, including saline waters, within the boundaries of the state.” Both agencies evaluate proposed actions for consistency with the Regional Water Quality Control Board’s water quality control plan and authorize impacts on waters of the State by issuing waste discharge requirements or, in some cases, a waiver of waste discharge requirements.

McAteer-Petris Act

The San Francisco Bay Conservation and Development Commission (BCDC) is a State agency created by the McAteer-Petris Act to regulate development in and around San Francisco Bay. BCDC was designated as the federal Coastal Zone Management Agency for San Francisco Bay in accordance with the federal Coastal Zone Management Act. The purpose of the Coastal Zone Management Act is similar to that of the McAteer-Petris Act, to regulate development in coastal

areas and to protect their unique resources. Areas within San Francisco Bay and within 100 feet of the bay shoreline, from the extent of wetland vegetation, generally fall within the jurisdictional purview of BCDC.

California Environmental Quality Act Guidelines Section 15380

CEQA Guidelines Section 15380(b) designates a species as endangered or rare for the purposes of CEQA if the species of plant or animal meets either of the following criteria:

(A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens.

(B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act.

Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code Sections 1900–1913) requires that endangered or rare native plants be protected by State departments and agencies through the conservation of rare and endangered plants. The law prohibits the take of endangered or rare plants and mandates that CDFW is notified at least 10 days before a change in land use for areas that support endangered or rare plant species.

3.4.3.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. 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 Project and alternatives are described below.

County of Santa Clara General Plan

The Santa Clara County General Plan (Santa Clara County 1994) includes the following policies related to biological resources that are relevant to the Project.

Parks & Recreation—Trails & Pathways

***Policy C-PR 30.1*:** Levels-of-use and types-of-use on trails shall be controlled to avoid unsafe use conditions or severe environmental degradation.

***Policy C-PR 31*:** Use of motorized vehicles on trails shall be prohibited, except for wheelchairs, maintenance, and emergency vehicles.

***Policy C-PR 33.5*:** Public improvement projects, such as road widenings, bridge construction, and flood control projects, that may impact existing or proposed trails should be designed to facilitate provision of shared use.

Resource Conservation—Water Supply Resources

***Policy C-RC 7*:** Countywide land use and growth management planning should be coordinated with overall water supply planning by the Santa Clara Valley Water District (SCVWD or "Valley Water"*)* in order to maximize dependability of long-term water supply resources.

Resource Conservation—Habitat & Biodiversity

***Policy C-RC 27*:** Habitat types and biodiversity within Santa Clara County and the region should be maintained and enhanced for their ecological, functional, aesthetic, and recreational importance.

***Policy C-RC 28*:** The general approach to preserving and enhancing habitat and biodiversity countywide should include the following strategies: Improve current knowledge and awareness of habitats and natural areas; protect the biological integrity of critical habitat areas; encourage habitat restoration; evaluate the effectiveness of environmental mitigations.

***Policy C-RC 30*:** Habitat and other resource areas not suitable or intended for urbanization should be excluded from urbanization, and non-urban development which occurs within resource conservation areas should minimize impacts upon habitat and biodiversity.

***Policy C-RC 31*:** Areas of habitat richest in biodiversity and necessary for preserving threatened or endangered species should be formally designated to receive greatest priority for preservation, including baylands and riparian areas, serpentine areas, and other habitat types of major significance.

***Policy C-RC 32*:** Land uses permitted in resource conservation areas should not be allowed to degrade the integrity of natural habitat.

***Policy C-RC 33*:** Linkages and corridors between habitat areas should be provided to allow for migration and otherwise compensate for the effects of habitat fragmentation.

***Policy C-RC 34*:** Restoration of habitats should be encouraged and utilized where feasible, especially in cases where habitat preservation and flood control, water quality, or other objectives can be successfully combined.

***Policy C-RC 35*:** The status of various threatened and endangered species and the effectiveness of strategies and programs to preserve biodiversity should be monitored and evaluated on an ongoing basis.

***Policy C-RC 36*:** Specific project mitigations for the purpose of preserving habitat should be monitored for a period of time to assure the likelihood of their effectiveness.

Envision San José 2040 General Plan

The Envision San José 2040 General Plan (City of San José 2024a) includes the following goals and policies related to biological resources that are relevant to the Project:

Goal MS-8: Environmental Stewardship. Establish San José as a local, regional, and statewide model for responsible management of resources.

***Policy MS-10.8*:** Minimize vegetation removal required for fire prevention. Require alternatives to discing, such as mowing, to the extent feasible. Where vegetation removal

is required for property maintenance purposes, encourage alternatives that limit the exposure of bare soil.

Goal MS-21: Community Forest. Preserve and protect existing trees and increase planting of new trees within San José to create and maintain a thriving Community Forest that contributes to the City's quality of life, its sense of community, and its economic and environmental well-being.

***Policy MS-21.1*:** Manage the Community Forest to achieve San José's environmental goals for water and energy conservation, wildlife habitat preservation, stormwater retention, heat reduction in urban areas, energy conservation, and the removal of carbon dioxide from the atmosphere.

***Policy MS-21.4*:** Encourage the maintenance of mature trees, especially natives, on public and private property as an integral part of the community forest. Prior to allowing the removal of any mature tree, pursue all reasonable measures to preserve it.

***Policy MS-21.5*:** As part of the development review process, preserve protected trees (as defined by the Municipal Code), and other significant trees. Avoid any adverse effect on the health and longevity of protected or other significant trees through appropriate design measures and construction practices. Special priority should be given to the preservation of native oaks and native sycamores. When tree preservation is not feasible, include appropriate tree replacement, both in number and spread of canopy.

***Policy MS-21.6*:** As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.

***Policy MS-21.7*:** Manage infrastructure to ensure that the placement and maintenance of street trees, streetlights, signs and other infrastructure assets are integrated. Give priority to tree placement in designing or modifying streets.

***Policy MS-21.9*:** Where urban development occurs adjacent to natural plant communities (e.g., oak woodland, riparian forest), landscape plantings shall incorporate tree species native to the area and propagate from local sources (generally from within 5-10 miles and preferably from within the same watershed).

***Policy MS-21.10*:** Prohibit London plane trees from being planted in the Coyote Planning Area, which is located near the most significant stands of sycamore alluvial woodland in the City. Planting of this species is discouraged elsewhere, particularly near riparian areas. Prohibit holly-leaved oaks from being planted in areas containing stands of native oaks or in proximity to native oak woodland habitat.

Goal ER-1: Grassland, Oak Woodlands, Chaparral and Coast Scrub. Preserve, protect and restore the ecological integrity and scenic characteristics of grasslands, oak woodlands, chaparral and coastal scrub in hillside areas.

***Policy ER-1.3*:** Cooperate with other agencies in the preservation and management of native hillside vegetation.

***Policy ER-1.4*:** Minimize the removal of ecologically valuable vegetation such as serpentine and non-serpentine grassland, oak woodland, chaparral, and coastal scrub during development and grading for projects within the City.

***Policy ER-1.5*:** Preserve and protect oak woodlands, and individual oak trees. Any loss of oak woodland and/or native oak trees must be fully mitigated.

Goal ER-2: Riparian Corridors. Preserve, protect, and restore the City's riparian resources in an environmentally responsible manner to protect them for habitat value and recreational purposes.

***Policy ER-2.1*:** Ensure that new public and private development adjacent to riparian corridors in San José are consistent with the provisions of the City's Riparian Corridor Policy Study and any adopted Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP).

***Policy ER-2.2*:** Ensure that a 100-foot setback from riparian habitat is the standard to be achieved in all but a limited number of instances, only where no significant environmental impacts would occur.

***Policy ER-2.3*:** Design new development to protect adjacent riparian corridors from encroachment of lighting, exotic landscaping, noise and toxic substances into the riparian zone.

***Policy ER-2.4*:** When disturbances to riparian corridors cannot be avoided, implement appropriate measures to restore, and/or mitigate damage and allow for fish passage during construction.

***Policy ER-2.5*:** Restore riparian habitat through native plant restoration and removal of nonnative/invasive plants along riparian corridors and adjacent areas.

Goal ER-4: Special-Status Plants and Animals. Preserve, manage, and restore habitat suitable for special-status species, including threatened and endangered species.

***Policy ER-4.1*:** Preserve and restore, to the greatest extent feasible, habitat areas that support special-status species. Avoid development in such habitats unless no feasible alternatives exist and mitigation is provided of equivalent value.

***Policy ER-4.3*:** Prohibit planting of invasive non-native plant species in natural habitats that support special-status species.

***Policy ER-4.4*:** Require that development projects incorporate mitigation measures to avoid and minimize impacts to individuals of special-status species.

Goal ER-5: Migratory Birds. Protect migratory birds from injury or mortality.

***Policy ER-5.1*:** Avoid implementing activities that result in the loss of active native birds' nests, including both direct loss and indirect loss through abandonment, of native birds. Avoidance of activities that could result in impacts to nests during the breeding season or maintenance of buffers between such activities and active nests would avoid such impacts.

***Policy ER-5.2*:** Require that development projects incorporate measures to avoid impacts to nesting migratory birds.

Goal ER-6: Urban Natural Interface. Minimize adverse effects of urbanization on natural lands adjacent to the City's developed areas.

***Policy ER-6.3*:** Employ low-glare lighting in areas developed adjacent to natural areas, including riparian woodlands. Any high-intensity lighting used near natural areas will be

placed as close to the ground as possible and directed downward or away from natural areas.

***Policy ER-6.7*:** Include barriers to animal movement within new development and, when possible, within existing development, to prevent movement of animals (e.g., pets and wildlife) between developed areas and natural habitat areas where such barriers will help to protect sensitive species.

***Policy ER-6.8*:** Design and construct development to avoid changes in drainage patterns across adjacent natural areas and for adjacent native trees, such as oaks.

Goal ER-7: Wildlife Movement. Minimize adverse effects of future development on wildlife movement and remove or reduce existing impediments to wildlife movement.

***Policy ER-7.3*:** Where new road crossings of streams are constructed, or existing culverts are replaced or improved, design them to allow movement of aquatic species present in any watercourse crossed by the road. Use clear-span bridges in place of culverts where feasible.

Santa Clara Valley Landscape Linkage

The Santa Clara Valley Open Space Authority and the Conservation Biology Institute produced the Coyote Valley Landscape Linkage report (2017), which include the following goals and principles to promote and maintain habitat linkages across Coyote Valley:

- Permanently protect habitat connectivity for terrestrial and aquatic species.
- Provide live-in and dispersal habitat for a full community of species, including special-status species, which can also facilitate daily and seasonal migrations, as well as long-term range shifts as species adapt to a changing climate.
- Accommodate the range of taxa and guilds between mountain ranges, even those that are not currently in the area but might be in the future as species shift distribution in response to climate change.
- Protect, expand, and connect habitat patches in a way that minimizes edge effects.
- Prevent linkage fragmentation from future incompatible land uses (e.g., urban development, transportation projects, etc.).
- Use landscape resilience planning principles for sustainability in an urban ecosystem in the face of a changing and uncertain future:
  - Incorporate as much terrestrial and aquatic landform diversity, complexity, and connectivity as possible.
  - Provide redundancy of elements (both habitat types and safe crossings).
  - Consider historical ecology to understand the driving factors of setting.
  - Provide space for dynamic natural processes (e.g., flooding) to operate.
  - Develop the project at the scale at which landscape processes can operate meaningfully.
- Integrate wildland conservation with other land uses where possible to promote multiple social and community benefits (e.g., agriculture, recreation, stormwater management).

There are numerous design principles that are proposed to achieve these goals. These design principles include:

- Maintain a wide wildland area.
- Protect nature's stage—areas with the least fragmentation, existing protected lands, and the most landform diversity and topographic and hydrological complexity.
- Restore freshwater wetlands and a more natural hydrologic regime.
- Restore a mosaic of natural communities along the valley floor, especially rare habitat that complements wetlands, such as Valley oak woodlands and savanna.
- Improve permeability throughout the linkage by maintaining as much open space as possible and constraining further urban development.
- Use low-intensity agriculture to complement the linkage and provide additional habitat complexity and diversity.
- Increase the number of engineered strategic connections across the more significant barriers.
- Use multi-benefit landscape planning to ensure actions maximize public benefits while protecting unique values.

Coyote Creek Parkway County Park Integrated Natural Resources Management Plan and Master Plan

The Coyote Creek Parkway County Park Integrated Natural Resources Management Plan and Master Plan is crafted to balance the long-term resource management of the Coyote Creek Parkway County Park corridor with its recreation use in a way that directly reflects the Mission and Vision of the Santa Clara County Parks and Recreation Department. The Integrated Plan portrays how the Parkway can be managed and public access facilitated in a 10 to 20-year timeframe to most effectively enhance the habitat resources of the Parkway while providing a quality outdoor recreation experience.

Coyote Valley Conservation Area Master Plan

The Coyote Valley Conservation Areas Master Plan is a comprehensive plan for the use and restoration of approximately 1,500 acres of lands recently conserved by the Open Space Authority, Peninsula Open Space Trust, and city of San José in Coyote Valley. Additionally, the Master Plan is also studying the role these lands play within the context of the larger 17,200-acre Coyote Valley Conservation Program.

Habitat Conservation Plans

The Project lies within the PG&E San Francisco Bay Operations and Maintenance Habitat Conservation Plan (Bay Area O&M HCP) (PG&E 2017) and the Santa Clara Valley HCP (SCVHA 2012).

PG&E's San Francisco Bay Operations and Maintenance Habitat Conservation Plan

PG&E's Bay Area O&M HCP for its San Francisco Bay Area (Bay Area) activities covers 18 wildlife and 13 plant species, and the purpose is to enable PG&E to continue to conduct current and future operations and maintenance activities within the nine counties of the Bay Area while

avoiding, minimizing, and mitigating temporary and permanent impacts on threatened- and endangered-species habitat that could result from PG&E's ongoing operations and maintenance activities (PG&E 2017). Activities on PG&E property are covered by this HCP.

Santa Clara Valley Habitat Conservation Plan

The Cities of Gilroy, Morgan Hill, and San José, Santa Clara County, the Santa Clara Valley Transportation Authority, and the SCVWD, in association with the USFWS and the CDFW, conducted a collaborative process to prepare and implement an HCP known as the Santa Clara Valley HCP. The Santa Clara Valley HCP is intended to promote the recovery of endangered species and enhance ecological diversity and function, while accommodating planned growth on approximately 500,000 acres, or two-thirds of southern Santa Clara County. The Santa Clara Valley Habitat Agency implements the plan. The Santa Clara Valley HCP is a long-range plan designed to protect and enhance ecological diversity and function within a large section of Santa Clara County, while allowing for currently planned development and growth. This HCP provides a framework for the protection of natural resources, while streamlining and improving the environmental permitting process for both private and public development, including activities such as road, water, and other infrastructure construction and maintenance work. The Santa Clara Valley HCP is intended to provide environmental benefits by resulting in the creation of a number of new habitats reserves larger in scale and more ecologically valuable than the fragmented, piecemeal habitats yielded by mitigating projects on an individual basis.

The Project area is located within the permit area for the Santa Clara Valley HCP. The Santa Clara Valley HCP covers public and private utility activities within the planning limits of urban growth (as defined by the HCP), such as those that are associated with the Project. A majority of the Project would occur within the planning limits of urban growth and may be included as covered activities under this HCP. The Santa Clara Valley HCP requires permits for project-specific impacts on Santa Clara Valley HCP-listed species and removes the need to obtain approvals from the wildlife agencies, thus reducing the number and scope of required biological studies. The Santa Clara Valley HCP covers public and private utility activities, but coverage of the Project has not been confirmed. LSPGC would confirm whether the Project is covered by the Santa Clara Valley HCP, as the Project could potentially opt into and be covered by this HCP if impacts were identified to a covered species.

3.4.4 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed by LSPGC and PG&E to reduce Project impacts. Each utility company will be responsible for implementing its respective measures for its portion of the Project.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC’s scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project,

LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Chapter 2, Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.4.4.1 Applicant-Proposed Measures

LSPGC has developed Applicant-proposed measures (APMs) that are incorporated into LSPGC's components of the Project to reduce potential effects on biological resources. The following impact analysis assumes that LSPGC would implement the following APMs as part of its portion of work for the Project.

- **APM BIO-1: Restoration of Disturbed Areas.** Areas that are temporarily disturbed by the Project activities shall be restored to approximate preconstruction conditions. Areas that are disturbed by grading, augering, or equipment movement shall be restored to their original contours and drainage patterns. Work areas shall be de-compacted, and salvaged topsoil materials shall be respread following recontouring to aid in restoration of temporarily disturbed areas. Revegetation activities shall be conducted in accordance with the Project Stormwater Pollution Prevention Plan (SWPPP) and APMs. Restoration could include recontouring, reseeding, and planting replacement vegetation, as appropriate. Temporarily disturbed areas shall be revegetated with appropriate weed-free native seed mixes or species that are characteristic of the plant community that was disturbed.

- **APM BIO-2: Rare Plant Surveys.** Protocol surveys and preconstruction surveys shall be conducted within all Project impact areas, and suitable buffers shall be established within suitable habitat areas for special-status plants. In the event of the discovery of a special-status plant, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, LS Power shall consult with the USFWS and/or CDFW for ITPs. Preconstruction surveys shall be conducted within Project impact areas 14 to 30 days prior to the start of construction for any rare plants that are identified during the focused surveys. Construction activities that may impact rare plants, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Upon the discovery of sensitive plants, the qualified biologist shall have the authority to stop work activities and, following the identification and implementation of steps required to avoid or minimize impacts to sensitive plants, direct construction work to commence once more.

- **APM BIO-3: Preconstruction Sweeps.** Prior to initial vegetation clearance and ground-disturbing activities, a qualified biologist shall conduct preconstruction survey sweeps of the Project work area for special-status wildlife and plants in areas that contain potentially suitable habitats. In the event of the discovery of a special-status plant, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not

possible, LS Power shall seek coverage from the Santa Clara Valley HCP, or shall consult with the USFWS and/or CDFW for ITPs. Any other construction activities that may impact sensitive biological resources, including movement of construction equipment and other activities outside of the fenced/paved areas within wildlife habitat, shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of sensitive biological resources and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive resources.

- **APM BIO-4: Sensitive Area Demarcation.** All sensitive biological areas (including creeks, wetlands, and special-status species habitats) within the Project work area shall be clearly marked prior to construction commencement to restrict construction activities and equipment from entering these areas. These markings shall be inspected regularly to ensure that they remain in place.

- **APM BIO-5: Vehicle Cleaning Prior to Entering Natural Areas.** Vehicles and equipment shall be cleaned prior to use in native habitat on the Project areas to avoid the spread of noxious weeds and non-native invasive plant species.

- **APM BIO-6: Vehicle Speed Limits.** Speed of vehicles driving along proposed access roads and on the Project site during construction and operation shall be limited to 15 mph, except in the case of legal roadgoing vehicles traveling on portions of the Project site that are public roadways which shall be limited to posted speed limits. In addition, construction and maintenance employees shall be required to stay on established and clearly marked and existing roads, except where not feasible due to physical or safety constraints and shall be advised that care should be exercised when commuting to and from the Project area to reduce accidents and animal road mortality.

- **APM BIO-7: Outdoor Lighting Measures.** The use of outdoor lighting during construction and O&M shall be minimized whenever practicable. Photocell and motion detection-controlled lighting shall be provided at a level sufficient to provide safe entry and exit to the Project terminals and control enclosures and for security purposes. All lighting shall be selectively placed, shielded, and directed downward to the extent practicable. Night work shall be avoided as practicable; however, given the large amount of construction proposed within existing roads, local municipalities may dictate that transmission line construction occurs at nighttime within certain areas of the Project. The most likely areas for nighttime construction are within commercial and industrial areas and not residential or potentially sensitive biological areas.

- **APM BIO-8: Worker Environmental Awareness (WEAP) Training.** A WEAP shall be implemented to educate all on-site construction workers on site-specific biological and non-biological resources and proper work practices to avoid harming wildlife during construction activities. This WEAP shall include measures to reduce trash buildup during construction.

- **APM BIO-9: Nesting Birds and Roosting Bats Protection.** If feasible, LSPGC shall avoid certain construction activities such as vegetation trimming/removal during the migratory bird nesting and breeding and roosting bat seasons. When it is not feasible to avoid construction during these seasons, LS Power shall perform a nesting bird and roosting bat survey in the area where the work is to occur. This survey shall be performed to determine the presence or absence of nesting birds and roosting bats. If roosting bats or active nests (i.e., containing eggs or young) are identified, a suitable construction buffer shall be implemented to ensure that the nesting or breeding activities are not substantially adversely affected. If the nesting or

breeding activities are being conducted by a Federal or State-listed species, LSPGC shall consult with the USFWS and CDFW as necessary. A qualified biologist shall monitor the nest until the birds have fledged or construction is no longer occurring on the site.

- **APM BIO-10: San Joaquin Kit Fox (SJKF) Surveys.** Protocol surveys and preconstruction survey sweeps shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for San Joaquin kit fox (SJKF). In the event of the discovery of occupied burrows and/or SJKF individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact SJKF, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, would be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of suitable burrows or live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to SJKF.

- **APM BIO-11: Excavation Wildlife Safety Best Management Practices.** Excavated holes/trenches that are not within areas that have wildlife exclusion fencing or that are not filled at the end of the workday shall be covered, or a wildlife escape ramp shall be installed to prevent the inadvertent entrapment of wildlife species.

- **APM BIO-12: Special-Status Bird Surveys.** Protocol surveys shall be conducted for Swainson's hawk and bald eagle; focused surveys shall be conducted for tricolored blackbird and other raptors; and preconstruction survey sweeps shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for Swainson's hawk, tricolored blackbird, bald eagle, burrowing owl, and other raptors. In the event of the discovery of suitable habitats, nests, or live individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW would be consulted. Tricolored blackbird is a covered species under the Santa Clara Valley HCP; if impacts are identified during species-specific surveys, the take for this species shall be covered either under the HCP or covered under a State ITP in consultation with CDFW. If impacts are identified during species-specific surveys for the other State-listed bird species that are not covered under the Santa Clara Valley HCP (Swainson's hawk, bald eagle, and any other bird species that are identified), the take shall be covered under a State ITP in consultation with CDFW. Any other construction activities that may impact special-status birds, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Additionally, qualified biologists shall monitor all active nests to ensure that construction activities are not disturbing the nest. The monitor/inspector shall have the authority to stop work activities upon the discovery of nests or live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive birds.

- **APM BIO-13: Raptor Surveys.** If a raptor nest is observed within 500 feet of the Project during focused or preconstruction surveys, a qualified biologist shall determine if it is active. If the nest is determined to be active, the qualified biological monitor shall monitor the nest to ensure that nesting or breeding activities are not substantially adversely affected. If the biological monitor determines that activities associated with the Project are disturbing or disrupting nesting or breeding activities, the monitor shall make recommendations to reduce noise or disturbance in the vicinity of the nest. If the nest is determined to be inactive, the nest shall be removed under direct supervision of the qualified biologist.

- **APM BIO-14: Nesting Bird Surveys.** Preconstruction nest surveys shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for Migratory Bird Treatment Act (MBTA)-protected birds. In the event of the discovery of an active nest, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact nesting birds, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Additionally, biologists shall monitor all active nests to ensure that construction activities are not disturbing the nest. The monitor/inspector shall have the authority to stop work activities upon the discovery of nests or live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to nesting birds.

- **APM BIO-15: Special-status Invertebrate Surveys.** Protocol surveys and preconstruction surveys shall be conducted within all proposed impact areas and suitable buffers within potentially suitable habitat areas for bay checkerspot butterfly, monarch butterfly, western bumblebee and Crotch's bumblebee. In the event of the discovery of suitable habitat, host plants, or individuals of these special-status invertebrates, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. Bay checkerspot butterfly is a covered species under the Santa Clara Valley HCP. If avoidance of the bay checkerspot butterfly is not possible, the take for this species shall be covered either under the Santa Clara Valley HCP or under a Federal ITP in consultation with the USFWS. If impacts are identified during species- specific surveys for Monarch butterflies or Crotch's bumblebee which are not covered under the Santa Clara Valley HCP, the take shall be covered under a Federal ITP (monarch butterfly; Federal candidate species) or State ITP (Crotch's bumblebee; State candidate species) in consultation with CDFW or USFWS. Any other construction activities that may impact special-status invertebrates or their habitats, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of individuals or host plants and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive invertebrates.

- **APM BIO-16**: **Special-status Amphibian Surveys.** Protocol surveys shall be conducted for California tiger salamander and California red-legged frog; focused surveys shall be conducted for foothill yellow-legged frog; and preconstruction surveys shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for California tiger salamander, California red-legged frog, and foothill yellow-legged frog. In the event of the discovery of suitable habitats or live individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact special-status amphibians, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive amphibians.

3.4.4.2 PG&E Best Management Practices and Field Protocols

PG&E has developed best management practices (BMPs) and field protocols (FPs) that are incorporated into PG&E components of the Project. The analysis assumes that the following BMPs would be implemented by PG&E for its portion of the work for the Project.

- **PG&E BMP BIO-1: Worker Environmental Awareness Training.** A qualified biologist will develop an environmental awareness training program that is specific to the project. All on-site construction personnel will attend the training before they begin work on the project. Training will include a discussion of the construction management practices that are being implemented to protect biological resources as well as the terms and conditions of any project permits.

- **PG&E BMP BIO-2: Burrowing Owl.** A survey for evidence of burrowing owl (sign or presence) should be conducted prior to initial ground disturbance. The survey can occur within the best detection timeframe and within two weeks of construction. If burrowing owl are detected, consult with the CDFW.

- **PG&E BMP BIO-3: Nesting Birds.** If work is anticipated to occur within the nesting bird season (February 1-August 31), nesting birds, including raptors and other species protected under the Migratory Bird Treaty Act, may be impacted. If active nests are discovered, exclusionary measures and/or designated avoidance buffers may be required and implemented according to the guidance in the PG&E Nesting Bird Management Plan. The project biologist determines if the construction action will impact the nest, and if so, identifies whether alternative actions or monitoring can be implemented to avoid impacts. If active nests are observed during construction, crews must immediately alert the PG&E project biologist.

- **PG&E FP-1:** Hold annual training on HCP requirements for employees and contractors performing covered activities in the Plan Area that are applicable to their job duties and work.

- **PG&E FP-2:** Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, compacted dirt).

- **PG&E FP-3:** Use existing access and ROW roads. Minimize the development of new access and ROW roads, including clearing and blading for temporary vehicle access in areas of natural vegetation.

- **PG&E FP-4:** Locate off-road access routes and work sites to minimize impacts on plants, shrubs, trees, small mammal burrows, and unique natural features (e.g., rock outcrops).

- **PG&E FP-5:** Notify conservation landowner at least two business days prior to conducting covered activities on protected lands (state and federally owned wildlife areas, ecological reserves, or conservation areas); more notice shall be provided if possible or if required by other permits. If the work is an emergency, as defined in PG&E's Utility Procedure ENV-8003P- 01, PG&E shall notify the conservation landowner within 48 hours after initiating emergency work. While this notification is intended only to inform conservation landowner, PG&E shall attempt to work with the conservation landowner to address landowner concerns.

- **PG&E FP-6:** Minimize potential for covered species to seek refuge or shelter in pipes and culverts. Inspect pipes and culverts, with a diameter wide enough to be entered by a covered species that could inhabit the area where pipes are stored, for wildlife species prior to moving pipes and culverts. Immediately contact a biologist if a covered species is suspected or discovered.

- **PG&E FP-7:** Vehicle speeds on unpaved roads shall not exceed 15 mph.
- **PG&E FP-8:** Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites.
- **PG&E FP-9:** During fire season in designated State Responsibility Areas, equip all motorized equipment with federally approved or state-approved spark arrestors. Use a backpack pump filled with water and a shovel and fire- resistant mats and/or windscreens when welding. During fire "red flag" conditions as determined by Cal Fire, curtail welding. Each fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C. Clear parking and storage areas of all flammable materials.
- **PG&E FP-10:** Minimize the activity footprint and minimize the amount of time spent at a work location to reduce the potential for take of species.
- **PG&E FP-11:** Utilize standard erosion and sediment control BMPs (pursuant to the most current version of PG&E's *Stormwater Field Manual for Construction Best Management Practices*) to prevent construction site runoff into waterways.
- **PG&E FP-12:** Stockpile soil within established work area boundaries and locate stockpiles so as not to enter water bodies, stormwater inlets, or other standing bodies of water. Cover stockpiled soil prior to precipitation events.
- **PG&E FP-13:** Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews shall search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife are not trapped. If any wildlife is found, a biologist shall be notified and shall relocate the species to adjacent habitat or the species shall be allowed to naturally disperse, as determined by a biologist.
- **PG&E FP-14:** If the covered activity disturbs 0.1-acre or more of habitat for a covered species in grasslands, the field crew shall revegetate the area with a commercial "weed free" seed mix.
- **PG&E FP-15:** Prohibit vehicular and equipment refueling 250 feet from the edge of vernal pools, and 100 feet from the edge of other wetlands, streams, or waterways. If refueling must be conducted closer to wetlands, construct a secondary containment area subject to review by an environmental field specialist (EFS) and/or biologist. Maintain spill prevention and cleanup equipment in refueling areas.
- **PG&E FP-16:** Maintain a buffer of 250 feet from the edge of vernal pools and 50 feet from the edge of wetlands, ponds, or riparian areas. If maintaining the buffer is not possible because the areas are either in or adjacent to facilities, the field crew shall implement other measures as prescribed by the land planner, biologist, or HCP administrator to minimize impacts by flagging access, requiring foot access, restricting work until dry season, or requiring a biological monitor during the activity.
- **PG&E FP-17:** Directionally fell trees away from an exclusion zone, if an exclusion zone has been defined. If this is not possible, remove the tree in sections. Avoid damage to adjacent trees to the extent possible. Avoid removal of snags and conifers with basal hollows, crown deformities, and/or limbs over six inches in diameter.
- **PG&E FP-18:** Nests with eggs and/or chicks shall be avoided; contact a biologist, land planner, or the Avian Protection Program manager for further guidance.

3.4.5 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant impact on biological resources if it would do any of the following:

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 CDFW or USFWS.

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

c) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

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

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

f) Conflict with the provisions of an adopted HCP, natural community conservation plan, or other approved local, regional, or State HCP.

The CPUC has identified additional CEQA impact criteria that are specific to the types of projects evaluated by the CPUC to be considered in addition to the criteria identified in Appendix G of the CEQA Guidelines (CPUC 2019). With regard to biological resources, the Project would also result in a significant impact on biological resources if it would:

g) Create a substantial collision or electrocution risk for birds or bats.

3.4.6 Direct and Indirect Effects

3.4.6.1 Approach to Analysis

Impact Assessment

Criterion a) Whether the Project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Impact 3.4-1: The Project would not 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 CDFW or USFWS. (*Less than Significant with Mitigation*)

Special-status plant and wildlife species with moderate or higher potential to occur at the Project site—including sensitive and candidate species—are described in Section 3.4.2 and may be affected by Project construction or operation and maintenance activities, or both. Additional

species with low potential to occur are identified in Appendix C. The following impacts and avoidance measures would apply to all special-status species that may occur on the Project site.

Construction

Special-Status Plants

Direct impacts on special-status plant species and sensitive vegetation communities could include destruction of individual plants or groups of plants. Indirect impacts could include loss of areas that contain suitable microhabitat conditions for special-status plants or introduction of non-native weed species that may outcompete these plants. Four special-status plant species have moderate potential to occur within the biological resources study area. Rare plants could be affected within riparian hardwood woodland and annual grassland habitats along Coyote Creek. These impacts would be potentially significant.

To address these impacts, preconstruction surveys for rare plants would be conducted in potential habitat areas during blooming season (**APM BIO-2: Rare Plant Surveys**), and any populations that are found would be avoided to the extent practicable (APM BIO-2; **APM BIO-3: Preconstruction Sweeps**; and **APM BIO-4: Sensitive Area Demarcation**). Preconstruction sweeps would occur within disturbance areas (APM BIO-3) and vehicles would be cleaned before arriving on-site in sensitive natural areas (**APM BIO-5: Vehicle Cleaning Prior to Entering Natural Areas**), to limit the potential spread of noxious weeds. Additionally, all areas temporarily disturbed would be restored to approximate preconstruction conditions in accordance with the site's SWPPP (**APM BIO-1: Restoration of Disturbed Areas**), and spills would be prevented by secondary containment (**APM HAZ-1: Site-Specific Spill Prevention, Control, and Countermeasure Plan**).

For PG&E's portion of the Project work (e.g., modifications at the existing PG&E San Jose B and Metcalf substations, and construction of a water line routed along Metcalf Road), PG&E would implement the following measures: PG&E FP-2 to park vehicles in disturbed or designated areas to minimize the disturbance area, and PG&E BMP BIO-1: Worker Environmental Awareness Training (see Section 3.4.4).

Implementation of the LSPGC APMs and PG&E BMPs and FPs would reduce direct and indirect impacts on special-status rare and candidate plants, but the impacts could remain significant because the APMs, FPs, and BMPs lack proscriptive measures for rare plant surveys and measures to address plants found on-site. With LSPGC's implementation of **LSPGC Mitigation Measure 3.4-1: Avoid Impacts on Rare Plants**, which includes avoidance buffers and measures to take if a species is found, impacts on special-status, rare, and candidate plant species would be reduced to a less-than-significant level.

In the event rare plants are discovered in the work area, **LSPGC Mitigation Measure 3.4-1: Avoid Impacts on Rare Plants** would be implemented by LSPGC for their protection or relocation. The measure requires that protocol-level botanical surveys be conducted in season to identify special-status, rare, and candidate plants on the Project site, and specifies the implementation of avoidance measures in coordination with regulatory agencies. Therefore, implementation of the LSPGC APMs and PG&E BMPs and FPs, supplemented by

implementation of LSPGC Mitigation Measure 3.4-1, would reduce direct and indirect impacts on special-status, rare, and candidate plant species to a **less-than-significant** level.

LSPGC Mitigation Measure 3.4-1: Avoid Impacts on Rare Plants

Rare plant surveys conducted under APM BIO-2 shall be floristic in nature and shall be conducted by a qualified botanist according to procedures outlined in the CDFW publication *Protocols for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Commu*nities (CDFW 2018b). The survey(s) shall be conducted in early, mid-, or late spring, in conjunction with the blooming seasons of those rare plants with moderate potential to occur in the survey area.

If no special-status plants are observed during appropriately timed surveys conducted by a qualified botanist, it shall be assumed that the construction activity will have no impact on special-status plants and no further action is required. If special-status plants are identified within the survey area, the individuals or populations shall be mapped and quantified and reported to the CNDDB, and the project manager shall be notified so that potential impacts on these known occurrences will be avoided or minimized. Coordination with CDFW and/or USFWS staff shall be conducted to establish appropriate avoidance and minimization measures if the species is federally or State listed. Avoidance and minimization measures may include:

(1) No-disturbance buffers. The size of the buffer would typically be 25–50 feet but may be increased or decreased by the biologist depending on the plant species and surroundings.

(2) Work windows for low-impact activities that are compatible with the dormant phase of a special-status plant life cycle but that may kill living plants or severely alter their ability to reproduce.

(3) Silt fencing or construction fencing to prevent vehicles, equipment, and personnel from accessing the occupied habitat.

(4) Erosion control BMPs such as straw wattles made of rice straw, erosion control blankets, or hydroseeding with a native plant seed mix to prevent sedimentation from upslope construction activities.

(5) In consultation with and as authorized by CDFW or USFWS, collection and spreading of seeds or relocation of plants to appropriate locations by a qualified botanist.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.4-1 would reduce impacts on special-status plants to a less-than-significant level.

Special-Status Wildlife

Invertebrates

Direct impacts on the special-status invertebrate species (western bumblebee, Crotch's bumblebee, monarch butterfly, and bay checkerspot butterfly) could include vehicle strikes or crushing during construction, removal of suitable flowering vegetation during construction, vegetation clearing activities, and permanent loss of approximately 8.3 acres of potentially suitable habitat (riparian hardwood woodland, annual grassland, and orchard areas). Such impacts could also occur to the large marble butterfly, which presently has no protection status. These impacts would be potentially significant.

The majority of the Project would be constructed within existing disturbed roadways, and work areas and staging areas would also be sited primarily within previously disturbed habitats. The permanent loss of approximately 8.3 acres of potentially suitable special-status invertebrate habitat (the orchard) would be unavoidable. Permanently lost sensitive riparian (hardwood woodland) habitat would be compensated, as discussed under Impact 3.4-2.

Indirect impacts on special-status invertebrate species during construction could include temporarily decreased suitability of habitat in the vicinity caused by increased runoff, sedimentation, proliferation of invasive species, and increased noise from construction activities and vehicles or increased human activity. However, noise during construction activities would be short-term and would not likely be substantially higher than existing than the background noise at the Project site. These impacts would be potentially significant.

To address these indirect impacts, LSPGC would restore all temporarily affected vegetation after construction and minimize erosion by adhering to the site's SWPPP (APM BIO-1). To minimize the spread of invasive species, vehicles would be cleaned before entering native habitat (APM BIO-5). Hazardous spills would be prevented by secondary containment (APM HAZ-1). Protocol surveys between April and August and preconstruction sweeps (APM BIO-3 and **APM BIO-15: Special-Status Invertebrate Surveys**) would help to identify any host plants, butterfly roosting sites, and bumblebee nests, which would then be clearly marked for avoidance during construction activities (APM BIO-4 and APM BIO-15). If these areas cannot be avoided, USFWS and/or CDFW would be consulted for take authorization. A qualified biological monitor would be present during construction activities that could affect special-status invertebrates (APM BIO-15). Vehicles would stay on established roadways, with a speed limit of 15 miles per hour (mph) (**APM BIO-6: Vehicle Speed Limits**). WEAP training would be provided to all workers on special-status insect species and their preferred flowering plants, and on ways to reduce potential impacts on wildlife species (**APM BIO-8: Worker Environmental Awareness [WEAP] Training**).

For PG&E's portion of the Project work (e.g., modifications at the existing PG&E San Jose B and Metcalf substations, and construction of a water line routed along Metcalf Road), PG&E would implement the following measures: PG&E FP-7 for vehicle speeds, PG&E FP-10 for minimizing the activity footprint and work duration, and FP-14 for reseeding disturbed areas; and PG&E BMP BIO-1 for implementation of a WEAP (see Section 3.4.4).

Implementation of the LSPGC APMs and PG&E BMPs and FPs would reduce direct and indirect impacts on special-status invertebrates, but the impacts could remain significant because the APMs, FPs, and BMPs lack proscriptive measures to address invertebrates found on-site. With LSPGC's implementation of **LSPGC Mitigation Measure 3.4-2: Protection of Special-Status Wildlife**, which includes avoidance buffers and measures to take if a species is found. Specifically, LSPGC Mitigation Measure 3.4-2 includes specific timing and avoidance measures for minimizing harm to special-status invertebrates, if any species are found on-site.

Bay checkerspot butterfly is a covered species under the Santa Clara Valley HCP. If impacts are identified during species-specific surveys, the take for this species would be covered either under the HCP or under a federal ITP in consultation with USFWS. If impacts are identified during

species-specific surveys for other special-status invertebrates not covered under the Santa Clara Valley HCP, the take would be covered under a federal ITP (monarch butterfly; federal candidate species) or State ITP (western or Crotch's bumblebee; State candidate species) in consultation with CDFW or USFWS. Should the large marble butterfly be present and be granted federal status as a candidate or listed species, USFWS consultation would also be needed for this species.

LSPGC Mitigation Measure 3.4-2: Protection of Special-Status Wildlife

To supplement the protective actions provided in the APMs and PG&E BMPs and FPs for special-status wildlife species, including, but not limited to, terrestrial mammals, reptiles and amphibians, and roosting bats, this measure includes specific criteria regarding preconstruction survey timing, buffer demarcation, and steps to follow in the event a special-status species is found.

Preconstruction clearance surveys within suitable habitat for special-status species that are known to be present or have at least a moderate potential to occur shall be conducted by a qualified biologist within 7 days of the start of construction activities. Nesting bird surveys shall only be required between February 1 and August 31. If a special-status wildlife species or nesting birds are found, the qualified biologist shall clearly mark avoidance buffers for protection of biological resources using flagging or other high-visibility material. Avoidance buffers shall be 50 feet for songbirds and non-raptor nests and 500 feet for raptor nests and other large species; buffer sizes may be increased or decreased by the qualified biologist, depending on species and site location. USFWS and/or CDFW shall be notified in the event a federally listed or State-listed species is found.

A qualified biologist shall be on-site to conduct daily pre-activity surveys and monitoring during all ground-disturbing and vegetation removal activities in suitable habitat for special-status species. The qualified biologist shall conduct daily clearance surveys of all equipment, vehicles, and stockpiled materials at the beginning of each day, and regularly throughout the workday.

If a special-status species is observed in a work area, the qualified biologist shall clearly mark the area using flagging or other high-visibility material for avoidance for the duration of work in the vicinity. If avoidance is not possible, work activities shall cease until the species has left the area on its own or is relocated by a qualified biologist in accordance with the Santa Clara Valley HCP or a species-specific ITP, in coordination with USFWS and/or CDFW. If relocation of the special-status species is not allowed, an avoidance buffer shall be established at 25 feet to 250 feet, depending on the species and location, and as USFWS and/or CDFW recommends.

Protective actions under the Santa Clara Valley HCP or species-specific ITP may include seasonal avoidance of sensitive habitat areas, monitoring requirements and reporting, and mitigation for permanent loss of habitat.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.4-2 would reduce impacts on special-status invertebrates to a less-than-significant level.

Fish

Direct impacts on special-status fish are not expected because neither construction nor operation of the Project would affect aquatic habitat (i.e., Coyote Creek). The Project would utilize horizontal

directional drilling (HDD)[1] to install the proposed Metcalf to Grove 500 kV Transmission Line under Coyote Creek where steelhead or roach may be found.

Indirect construction-related impacts on fish could include decreased water quality in the Project vicinity caused by sedimentation, spills, or leaks into waterways; increased noise from construction activities; and increased human activity. These impacts would be potentially significant. To address these potential impacts, WEAP training would be provided to all workers (APM BIO-8) to educate them on special-status fish within Coyote Creek, and on the need to ensure that no spills, leaks, or trash dumping occurs.

Indirect impacts related to spills/leaks, runoff, and sedimentation would be minimized by continued adherence to the site's SWPPP (APM BIO-1) and hazardous material containment (APM HAZ-1). To minimize the spread of invasive species, vehicles would be cleaned before entering native habitat (APM BIO-5). Sensitive areas (including Coyote Creek) located within the vicinity of construction activities would be clearly marked and avoided to the extent practicable (APM BIO-4). After construction, all temporary impact areas would be restored, helping to protect the waterway (APM BIO-1). As stated in Chapter 2, *Project Description*, HDD construction activities under Coyote Creek would be scheduled during the dry season, if feasible, to minimize the potential for impacts on water quality. In the event of unanticipated impacts, such as fracturing out ("frac-out," the unintentional release of drilling fluids, typically bentonite, to the ground surface), HDD operation would be halted or redirected, as stated in Chapter 2.

For PG&E's portion of the Project work (e.g., modifications at the existing PG&E San Jose B and Metcalf substations, and construction of a water line routed along Metcalf Road), PG&E would implement the following measures: PG&E FP-11 for erosion and sediment control, FP-12 for covering and locating soil stockpiles away from waterways, FP-15 to prevent refueling near waterways, and FP-16 to maintain a buffer area around wetlands, ponds, and riparian areas; and PG&E BMP BIO-1 for implementation of a WEAP (see Section 3.4.4).

With implementation of these avoidance measures and LSPGC APMs and PG&E BMPs and FPs, impacts on special-status fish would be **less than significant**.

Mitigation: None required.

Amphibian and Reptile Species

Direct impacts on special-status amphibian and reptile species (California tiger salamander, California red-legged frog, or northwestern pond turtle) could include vehicle strikes during construction, vegetation clearing that would remove habitat, and temporary and permanent loss of suitable upland dispersal habitat (riparian hardwood woodland and annual grassland) and potential upland dispersal habitat (the orchard). These impacts would be potentially significant. The areas with potential for these species to occur are located in the southeastern portion of the Project work areas near Coyote Creek. The Project would result in the permanent loss of approximately 0.9 acre of suitable riparian and grassland upland dispersal habitat and 7.4 acres of

[1] A trenchless construction technique used to install underground utilities under obstacles such as streams. It involves drilling a pilot hole, enlarging the hole with a reamer, and then pulling the utility through the enlarged hole (see Section 2.8.5.4, *Trenchless Techniques*).

orchard potential upland dispersal habitat, but the high quantity of similar upland habitat in the region would reduce the potential for impacts on special-status amphibian and reptile species caused by the loss of these habitats. In addition, permanently lost sensitive riparian habitat (hardwood woodland) would be compensated for, as described under Impact 3.4-2.

Although the majority of the Project would be constructed within existing roadways and previously disturbed habitat, temporary impacts on grassland, orchard, and riparian (hardwood woodland) habitats would occur. To address these impacts, temporarily affected areas would be revegetated with suitable vegetation and erosion minimized through adherence to the site's SWPPP (APM BIO-1). Protocol or focused surveys for California tiger salamander, California red-legged frog, and northwestern pond turtle would be conducted in the appropriate season and in potential breeding habitats within 0.6 mile of potential impact areas (**APM BIO-16: Special-Status Amphibian Surveys**). Also, preconstruction sweeps (APM BIO-3) would help to identify areas where these species may occur, and sensitive areas for these species (riparian areas and waterways) would be clearly marked and avoided to the extent practicable during construction (APM BIO-4). A qualified biological monitor would be present during all construction activities with the potential to affect special-status amphibians and reptiles (APM BIO-16). Vehicles would stay on established roadways, with a speed limit of 15 mph (APM BIO-6), and night work would be avoided to the extent possible (**APM BIO-7: Outdoor Lighting Measures**). WEAP training would be provided to all workers regarding special-status amphibians and reptiles and ways to reduce potential impacts on wildlife species (APM BIO-8).

Indirect impacts during construction could include decreased water quality in the Project vicinity caused by sedimentation, spills, or leaks into waterways; increased noise from construction activities; and increased human activity. However, noise during construction activities would be short-term and would not likely be substantially higher than the existing background noise at the Project site. These impacts would be potentially significant. Indirect impacts related to spills/leaks, runoff, and sedimentation would be minimized through continued adherence to the site's SWPPP (APM BIO-1) and hazardous material containment (APM HAZ-1). WEAP training would be provided to all workers (APM BIO-8) to educate them on the potential for special-status amphibians and reptiles and the need to ensure that no spills, leaks, or trash dumping occur. Sensitive areas (including Coyote Creek) in the vicinity of construction activities would be clearly marked and avoided to the extent practicable (APM BIO-4). Temporary impact areas would be restored after construction (APM BIO-1).

For PG&E's portion of the Project work (e.g., modifications at the existing PG&E San Jose B and Metcalf substations, and construction of a water line routed along Metcalf Road), PG&E would implement the following measures: PG&E FP-2 to park vehicles on disturbed areas, PG&E FP-6 to minimize the potential for special-status species to take refuge in pipes or culverts, PG&E FP-7 to reduce vehicle speeds, PG&E FP-10 to minimize the activity footprint and construction duration, PG&E FP-11 for erosion and sediment control, PG&E FP-12 for covering and locating soil stockpiles away from waterways, PG&E FP-13 to cover open excavations or provide escape ramps, PG&E FP-15 to prevent refueling near waterways, and PG&E FP-16 to maintain a buffer area around wetlands, ponds, and riparian areas; and PG&E BMP BIO-1 for implementation of a WEAP (see Section 3.4.4).

Implementation of LSPGC APMs and PG&E BMPs and FPs would reduce direct and indirect impacts on special-status amphibians and reptiles, but the impacts could remain significant because the LSPGC APMs and PG&E BMPs and FPs lack proscriptive measures to address species found on-site. With LSPGC's implementation of LSPGC Mitigation Measure 3.4-2, which includes avoidance buffers and measures to take if a species is found, impacts on special-status amphibian and reptile species would be reduced to a **less-than-significant** level.

The northwestern pond turtle, California tiger salamander, and California red-legged frog are all covered species under the Santa Clara Valley HCP. If these species are confirmed to be present during species-specific surveys, the take for these species would be covered either under the HCP or under a federal and/or State ITP in consultation with USFWS and CDFW.

Mitigation: Implement LSPGC Mitigation Measure 3.4-2.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.4-2 would reduce impacts on special-status amphibians and reptiles to a less-than-significant level.

Bird Species

Direct impacts on protected bird species (burrowing owl, white-tailed kite, bald eagle, Swainson's hawk, tricolored blackbird, or migratory nesting birds) could include vehicle strikes during construction; removal of vegetation housing nests; collision and electrocution risks from Project structures; and loss of nesting habitat (riparian hardwood woodland and annual grassland) and suitable foraging habitat. Raptors and smaller migratory birds may use trees and other vegetation within the Project site and vicinity for nesting, and tricolored blackbirds may use marsh vegetation for nesting in the riparian hardwood woodland. Vegetation within the PG&E upgrade area (water line route) may also be used as migratory bird nesting habitat.

Construction of the Project would require the removal of approximately 2,850 orchard trees, in addition to other trees along the installation route. With the loss of trees and other vegetation, the Project would cause the permanent loss of approximately 8.3 acres of avian foraging habitat (grassland and orchard) and 0.9 acre of nesting habitat. These impacts would be potentially significant.

Although the majority of the Project would be constructed within existing roadways and previously disturbed habitat, temporary impacts on grassland, orchard, and riparian (hardwood woodland) habitats would occur. To address these impacts, all temporary impact areas would be restored (APM BIO-1). Focused surveys (including protocol surveys for bald eagle, Swainson's hawk, and tricolored blackbird, as appropriate) and preconstruction sweeps (APM BIO-3, **APM BIO-12: Special-Status Bird Surveys**, **APM BIO-13: Raptor Surveys**, and **APM BIO-14: Nesting Bird Surveys**) would help identify areas with active nests, and nests would be clearly marked with appropriate buffers and avoided (APMs BIO-4, BIO-9, BIO-12, BIO-13, and BIO-14). A qualified biological monitor would be present during all construction activities with the potential to affect special-status birds and would have the authority to stop work if construction activities would adversely affect special-status birds (APMs BIO-12 and BIO-14). Vehicles would stay on established roadways, with a speed limit of 15 mph (APM BIO-6), and

night work would be avoided to the extent possible (APM BIO-7). In addition, collision and electrocution risks during construction would be minimized through adherence to Avian Power Line Interaction Committee (APLIC) protocols, as discussed in Chapter 2. WEAP training would be provided to all workers regarding special-status and migratory bird species, nests, and appropriate buffers (APM BIO-8).

For PG&E's portion of the Project work (e.g., modifications at the existing PG&E San Jose B and Metcalf substations, and construction of a water line routed along Metcalf Road), PG&E would implement the following measures: PG&E FP-18 for nest avoidance, and additional BMPs for protection of nesting birds, including PG&E BMP BIO-1; **PG&E BMP BIO-2: Burrowing Owl**; and **PG&E BMP BIO-3: Nesting Birds** (see Section 3.4.4).

Indirect impacts during construction could include decreased habitat suitability as a result of noise or increased human activity. Noise and light from construction activities can affect avian species by depressing breeding success by interfering with communication, or by interfering with detection of predators, disrupting breeding and foraging activities or causing birds to flush from or abandon active nests. However, noise during construction activities would be short-term and would not likely be substantially higher than the existing background noise at the Project site. These impacts would be potentially significant. Indirect impacts would be minimized by the implementation of APMs BIO-7 and BIO-8. Motion-detecting night lights would be provided to reduce impacts of night lighting on birds (APM BIO-7); WEAP training would be provided to workers to educate them on the potential for indirect impacts on special-status birds (APM BIO-8). Additionally, areas of temporary impacts would be restored per APM BIO-1 to limit the loss of suitable habitat.

Implementation of LSPGC APMs and PG&E BMPs and FPs would reduce direct and indirect impacts on special-status and nesting birds, but the impacts could remain significant because the LSPGC APMs and PG&E BMPs and FPs lack proscriptive measures to address species found on-site. LSPGC Mitigation Measure 3.4-2 would be implemented by LSPGC for the protection of special-status birds and other migratory nesting birds if identified on-site. LSPGC Mitigation Measure 3.4-2 requires that surveys be conducted by a qualified biologist and specifies the approach to follow if a special-status bird or nesting migratory bird is found on-site. With LSPGC's implementation of LSPGC Mitigation Measure 3.4-2 which includes avoidance buffers and measures to take if a species is found, impacts on special-status and nesting bird species would be reduced to a **less-than-significant** level.

Tricolored blackbird is a covered species under the Santa Clara Valley HCP. If the species is identified during species-specific surveys and impacts cannot be avoided, take for this species would be covered either under the HCP or under a State ITP in consultation with CDFW. If impacts are identified during species-specific surveys for State-listed or candidate bird species not covered under the Santa Clara Valley HCP (Swainson's hawk, bald eagle, burrowing owl, or any other bird species found), take would be covered under a State ITP, in consultation with CDFW. Impacts on white-tailed kite, a State fully protected species, would be completely avoided.

Mitigation: Implement LSPGC Mitigation Measure 3.4-2.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.4-2 would reduce impacts on special-status and protected birds to a less-than-significant level.

Mammal Species

Direct impacts on American badger, dusky-footed woodrat, or other special-status terrestrial mammal species (e.g., San Joaquin kit fox) could result from potential vehicle strikes; destruction of nests or burrows during construction and vegetation clearing; entrapment in excavations; and temporary and permanent loss of suitable riparian hardwood woodland, annual grassland, or orchard. In addition, the permanent loss of approximately 8.3 acres of potentially suitable foraging habitat (orchard; see Table 3.4-1) would be unavoidable. These impacts would be potentially significant.

In addition to terrestrial mammals, roosting bats (both special-status and common species) are protected under the California Fish and Game Code. Direct impacts on bat species could result from tree removal and vegetation clearing in bat roost habitat, collision risks from Project structures, and permanent loss of foraging habitat and potential roosting habitat for tree-roosting bats (0.8 acre of riparian hardwood woodland; Table 3.4-1).

Although the majority of the Project would be constructed within existing roadways and previously disturbed habitat, temporary impacts on grassland, orchard, and riparian (hardwood woodland) habitats would occur, along with permanent impacts on orchard and grassland. All temporary impact areas (approximately 15.2 acres of grassland, riparian, and orchard) would be restored (APM BIO-1). Vegetation trimming would also be minimized (**APM BIO-9: Nesting Birds and Roosting Bats Protection**). Protocol surveys conducted in the appropriate season and preconstruction surveys for roosts, burrows, and dens in suitable areas (APM BIO-3 and **APM BIO-10: San Joaquin Kit Fox [SJKF] Surveys**) would help to identify any potentially occupied habitat. If burrows are identified, they would be clearly marked and avoided by construction activities (APM BIO-4 and APM BIO-10). A qualified biological monitor would be present during all construction activities that could affect special-status mammals (APM BIO-3 and APM BIO-10). Vehicles would stay on established roadways, with a speed limit of 15 mph (APM BIO-6). In addition, the proposed Grove HVDC Terminal's construction area would be fenced, reducing the potential for vehicle strikes during construction. Collision and electrocution risks to bats would be reduced through adherence to Avian Power Line Interaction Committee (APLIC) design and collision avoidance protocols, as discussed in Chapter 2 (see Impact 3.4-7).

Indirect impacts during construction could include decreased habitat suitability due to noise or increased human activity. Noise from construction activities could interfere with mammals foraging or caring for their young. However, noise during construction activities would be short-term and would not likely be substantially higher than the existing background noise at the Project site. These impacts would be potentially significant. Night work would be avoided to the extent possible to reduce disturbance to wildlife active at dawn, dusk, and nighttime (APM BIO-7); and WEAP training would be provided (APM BIO-8) to educate workers on special-status mammals and harm minimization, such as trash reduction measures. Minimizing night work would limit its extent and duration during construction, and thus would reduce potential disturbance to nearby wildlife from night lighting to a less-than-significant level. All trenches and

holes that could create an entrapment hazard would be covered or have wildlife escape ramps installed (**APM BIO-11: Excavation Wildlife Safety Best Management Practices**).

For PG&E's portion of the Project work (e.g., modifications at the existing PG&E San Jose B and Metcalf substations, and construction of a water line routed along Metcalf Road), PG&E would implement the following measures: PG&E FP-2 to park vehicles on disturbed areas, PG&E FP-6 to minimize the potential for special-status species to take refuge in pipes or culverts, PG&E FP-7 to reduce vehicle speeds, PG&E FP-10 to minimize the activity footprint and construction duration, and PG&E FP-13 to cover open excavations or provide escape ramps; and PG&E BMP BIO-1 for implementation of a WEAP (see Section 3.4.4).

Implementation of LSPGC APMs and PG&E BMPs and FPs would reduce direct and indirect impacts on special-status mammals, but the impacts could remain significant because the LSPGC APMs and PG&E BMPs and FPs lack proscriptive measures to address species found on-site.

LSPGC would implement LSPGC Mitigation Measure 3.4-2, which includes avoidance buffers and measures to take if a species is found, including special-status mammals and roosting bats. LSPGC would also implement **LSPGC Mitigation Measure 3.13-1a: Nighttime Construction Noise Plan**, which would minimize effects from nighttime work, when it cannot be avoided. With LSPGC's implementation of LSPGC Mitigation Measure 3.4-2 and LSPGC Mitigation Measure 3.13-1a, impacts on special-status mammal species would be reduced to a **less-than-significant** level.

No bats or terrestrial mammals with the potential to occur on-site are covered species under the Santa Clara Valley HCP or federally listed or State-listed species.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.4-2 and LSPGC Mitigation Measure 3.13-1a.
>
> **LSPGC Mitigation Measure 3.13-1a: Nighttime Construction Noise Plan.**
>
> LSPGC and/or its contractors shall develop and implement a nighttime construction noise plan specific to each occurrence of nighttime construction activities proposed to occur within 500 feet of residences. For the purposes of implementation of this measure, "nighttime" means between the hours of 7:00 p.m. and 7:00 a.m. Each plan shall describe the proposed nighttime construction activities in detail and explain why such activities cannot be conducted during daytime hours, and shall be submitted to the CPUC for review and approval at least 30 days before the start of the subject nighttime construction activities. A plan shall not be required for emergency situations where stopping construction activities would result in hazardous conditions for workers or the public. Each plan shall include but not be limited to the following requirements for nighttime construction activities:
>
> - The plan shall include documentation that a variance from the municipal code of the applicable local jurisdiction (i.e., the City of San José or Santa Clara County) has been received.
> - Activities shall be planned to minimize the amount of nighttime construction.
> - Impact tools (e.g., jackhammers, pavement breakers) and pile drivers shall be prohibited during nighttime hours.

- When nighttime construction activities take place within 200 feet of noise-sensitive receptors, portable construction noise barriers, such as paneled noise shields, barriers, enclosures, or sound curtains, shall be used adjacent to or around loud stationary equipment. 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.
- A notice shall be distributed by mail, personal visit, door hanger, or email to the potentially affected residences and other sensitive receptors within 200 feet of the nighttime construction activities, describing where and when nighttime construction activities will occur.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.4-2 and LSPGC Mitigation Measure 3.13-1a would reduce impacts on special-status mammals, including bats, to a less-than-significant level.

Critical Habitat

USFWS-designated critical habitat for bay checkerspot butterfly could be directly affected by the Project in the vicinity of the Tulare Hill Ecological Preserve. The preserve is located west of the alignment along Monterey Road, where a mapped section of designated critical habitat extends into Monterey Road and would be affected by the Project. However, this area lacks the physical and biological features of critical habitat (e.g., the presence of host and nectar plants) and thus, is not suitable habitat for bay checkerspot butterfly. This area would be directly affected, but the impacts would occur entirely within a previously disturbed road.

NMFS-designated critical habitat for steelhead is located in the vicinity of the proposed Metcalf to Grove 500 kV Transmission Line at Coyote Creek, and in the vicinity of the existing PG&E San Jose B Substation and proposed Skyline HVDC Terminal at the Guadalupe River. However, neither would be affected by the Project because the portion of steelhead critical habitat within the Guadalupe River is more than 1 mile from the Project and the proposed Metcalf to Grove 500 kV Transmission Line would cross under Coyote Creek using HDD. The HDD pits would be set up outside of the Coyote Creek limits, including the areas of critical habitat. The proposed Metcalf to Grove 500 kV Transmission Line would be fully undergrounded through this section, and no impacts to the waterway are anticipated. If unanticipated impacts, such as fracturing-out ("frac-out" the unintentional release of drilling fluids, typically bentonite, to the ground surface) occur, HDD operations would be halted or redirected, as stated in Chapter 2. Additionally, HDD construction would occur during dry periods for Coyote Creek, if feasible, as stated in Chapter 2.

No direct or indirect impacts resulting in habitat loss, fragmentation, or changes to habitat conditions are anticipated. No other designated or proposed critical habitats would be affected by the Project. Therefore, direct and indirect impacts on designated critical habitat areas would be **less than significant**.

Mitigation: None required.

Operation and Maintenance

The Project's operation and maintenance activities would not involve permanent habitat impacts and would involve lower levels of traffic and human activity than would occur during construction.

To reduce the risks of potential vehicle strikes or crushing of special-status species during operation and maintenance activities, vehicles would stay on established roadways, with a speed limit of 15 mph (APM BIO-6). Indirect impacts during operation could include decreased quality of terrestrial and aquatic habitats caused by spills/leaks, runoff, sedimentation, invasive species proliferation, vehicle noise, and human activity. However, noise levels during operation would be low and in the range of normal background noise. Security lighting for the terminals would be photocell and motion-controlled. However, the site of the proposed Grove HVDC Terminal is not anticipated to typically require nighttime illumination. Indirect impacts related to spills/leaks, runoff, and sedimentation would be minimized through continued adherence to the site's SWPPP (APM BIO-1) and hazardous material containment (APM HAZ-1). Indirect impacts from invasive species proliferation would be minimized through adherence to APM BIO-5, which requires that vehicles be cleaned before entering natural areas. With implementation of the LSPGC APMs and PG&E BMPs, the Project's operation and maintenance impacts would be **less than significant**.

The risks to birds and bats related to collisions with and electrocution at Project structures during operation are discussed below under Impact 3.4-7.

Mitigation: None required.

Criterion b) Whether the Project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by CDFW or USFWS.

Impact 3.4-2: The Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS. (*Less than Significant with Mitigation*)

Construction

Approximately 98 percent of Project disturbance would occur to non-sensitive land cover. The Project would also result in approximately 3.5 acres of temporary disturbance to riparian (hardwood woodland) habitat and less than 0.1 acre of permanent impact. Riparian habitat is a sensitive natural community. Wetland areas would be completely avoided, and the PG&E substation modification and upgrades would not affect any sensitive natural communities.

Impacts would be avoided to the extent practicable (APM BIO-4) and all temporary impacts on sensitive vegetation communities would be restored in accordance with APM BIO-1. Restoration would include recontouring, reseeding, and re-planting with appropriate weed-free native seed mixes, or species characteristic of the plant community that was disturbed. Areas disturbed by grading, auguring, or equipment movement would be restored to their preconstruction conditions to the extent practicable. Work areas would be recompacted, and salvaged topsoil materials would be respread after recontouring to aid in restoration. Additionally, the Project would develop and implement a SWPPP that would include erosion control measures (LSPGC 2025).

Implementation of the LSPGC APMs and PG&E BMPs and FPs would reduce direct and indirect impacts on riparian habitat, but the impacts could remain significant because the LSPGC APMs

and PG&E BMPs and FPs lack proscriptive measures for restoration implementation following temporary impacts and do not address permanent impacts on sensitive natural communities. With LSPGC's implementation of **LSPGC Mitigation Measure 3.4-3: Compensatory Mitigation** and **LSPGC Mitigation Measure 3.4-4: Habitat Restoration and Monitoring**, which include compensatory mitigation for permanent loss, and ecological monitoring and reporting requirements for a habitat restoration plan to be approved by CDFW, impacts on sensitive natural communities would be reduced to a **less-than-significant** level.

LSPGC Mitigation Measure 3.4-3: Compensatory Mitigation

Permanent loss of riparian acreage shall be mitigated in accordance with the specifications of applicable regulatory agency permits. These permits may include a U.S. Army Corps of Engineers Clean Water Act Section 404 permit, a Regional Water Quality Control Board Clean Water Act Section 401 permit, and/or a CDFW Section 1600 Lake and Streambed Alteration Agreement. Specific compensatory mitigation, if required, shall include replacement of like habitat on- or off-site, at a 1:1 ratio, or as otherwise specified by the applicable resource agency permit(s).

LSPGC Mitigation Measure 3.4-4: Habitat Restoration and Monitoring

Before construction, the Applicant shall obtain all required environmental permits, including Clean Water Act water quality certification for federal and State jurisdictional wetlands (Section 401), permits for federal jurisdictional wetlands (Section 404), and CDFW Lake and Streambed Alteration Agreement (Section 1600). The Applicant shall adhere to the conditions of each permit.

At least 30 days before the completion of Project activities, the Applicant shall submit a restoration plan to CDFW for review and written approval. No restoration activities shall commence until the restoration plan has been approved by CDFW in writing. The plan shall detail compensation for permanent impacts on riparian and wetland habitat in the form of restoration or enhancement of habitat on-site, or off-site as close to the Project site as feasibly possible. The plan shall also describe the on-site restoration of temporary impacts on riparian and wetland habitat, as applicable, and shall include monitoring requirements and success criteria. The restoration plan shall be implemented within the same calendar year as the completion of Project activities unless otherwise approved in writing by CDFW. More than one plan may be necessary for restoration activities in different locations.

Restoration and monitoring shall be guided by a qualified biologist experienced in wetland habitat restoration. Restoration shall include protocols for the replanting of native vegetation removed before or during construction, and for management and monitoring of the plants to ensure replanting success. The following measures shall apply to site restoration:

- Areas affected by construction-related activity shall be replanted or reseeded with locally collected and grown native shrubs and herbaceous species suitable for riparian and wetland locations, under guidance from a qualified restoration biologist.
- To ensure a successful revegetation effort in the temporarily disturbed areas, all planting areas shall be monitored and maintained annually by a qualified biologist as necessary for 5 years. At the end of the 5 years of monitoring, with at least 3 years without supplemental irrigation, successful restoration of each category of plantings

(e.g., herbs, shrubs) will include at least 85 percent survival at the end of the minimum monitoring period and plantings shall attain 70 percent relative cover after 3 years and 75 percent relative cover after 5 years, unless otherwise approved in writing by CDFW. Survival and cover criteria shall both be required, unless the herbaceous or spreading plants cannot be differentiated by individual, in which case only cover success criteria would be required.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.4-3 and LSPGC Mitigation Measure 3.4-4 would reduce impacts associated with riparian or other sensitive natural communities to a less-than-significant level.

Operation and Maintenance

Operation and maintenance activities for the Project would entail brief periodic maintenance and inspections that would not require ground disturbance or vegetation clearing. Thus, temporary or permanent impacts from operation and maintenance activities on riparian vegetation are not expected, and the Project's operation and maintenance activities would have a less-than-significant impact on sensitive natural communities.

Mitigation: None required.

Criterion c) Whether the Project would have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.), other jurisdictional waters, and riparian habitat through direct removal, filling, hydrological interruption, or other means.

Impact 3.4-3: The Project would not have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant*)

Construction

Four mapped streams/waterways cross the Project alignment(s); however, no direct impacts on these areas or other jurisdictional waters or wetlands are expected to occur. The first is a perpendicular crossing of the inactive channel (Coyote Alamitos Canal) located in the vicinity of the proposed Grove to Skyline 320 kV Transmission Line just north of Metcalf Road. The second is Fisher Creek, a tributary of Coyote Creek, which crosses Monterey Road just north of the existing Metcalf Energy Center within the proposed Grove to Skyline 320 kV Transmission Line (Figure 3.4-2b). The third is the channel (Coyote Canal) that crosses under Coyote Ranch Road before draining into Coyote Creek, along the proposed Metcalf to Grove 500 kV Transmission Line. Although these three locations are mapped as streams/canals, construction would be located within the paved roadway along existing culverts (LSPGC 2025). Construction of the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV Transmission Line would use horizontal boring (jack-and-bore) or HDD trenchless techniques under these culverts if conventional trenching over or under the culverts is not feasible. The PG&E upgrades are not expected to result in any impacts on wetlands or waters.

The fourth stream crossing is located at the southern portion of the Project alignment, just south of Coyote Creek, for construction of the proposed Metcalf to Grove 500 kV Transmission Line (Figure 3.4-2b). The construction of this crossing would occur via HDD under the creek. Because the proposed Metcalf to Grove 500 kV Transmission Line would be fully undergrounded through this section, no impacts on the jurisdictional waterway are anticipated. In the event of unanticipated impacts, such as fracturing out ("frac-out," the unintentional release of drilling fluids, typically bentonite, to the ground surface), HDD operation would be halted or redirected, as stated in Chapter 2.

The locations of the proposed HVDC terminals do not have any aquatic or jurisdictional waters on-site. Similarly, the proposed PG&E substation upgrades would occur within and adjacent to the existing substation facilities and would extend approximately 800 feet north-northeast of the existing PG&E Metcalf Substation for the proposed new water line. No aquatic or jurisdictional features are located within the areas of the proposed PG&E facility upgrades or the new water line.

The proposed HVDC terminal sites would be built to drain stormwater to an on-site detention system using roadside drains (LSPGC 2025). Indirect effects from stormwater runoff and unanticipated spills during construction activities would be managed according to the stormwater management plan and BMPs established in the Project's SWPPP (APM BIO-1, APM HAZ-10). Thus, impacts on wetlands or waters from Project construction would be **less than significant**.

Mitigation: None required.

Operation and Maintenance

Operation and maintenance activities for the Project would occur on previously disturbed lands and would be protected from erosion or spills by the management plan and BMPs contained in the Project's SWPPP (APM BIO-1, APM HAZ-10). Thus, impacts on wetlands or waters from the Project's operation and maintenance activities would be **less than significant**.

Mitigation: None required.

Criterion d) Whether the Project would 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.

Impact 3.4-4: The Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (*Less than Significant with Mitigation*)

Construction

A significant impact on wildlife movement could occur if a wildlife movement corridor would be interrupted by a feature that would physically block wildlife movement (e.g., a roadway) or if suitable habitat supporting wildlife in the movement corridor would be directly removed during construction or indirectly affected by construction noise or dust. No wildlife nursery sites are known to be present on the Project site.

A large portion of the Project site is located within the San José city limits where there are no large wildlife movement corridors; however, the southeastern portion of the Project is located within Coyote Valley, a known wildlife movement corridor between the Santa Cruz Mountains and the Diablo Range. Approximately 546 acres of the Project site overlaps Coyote Valley, an area defined in the City of San José's *Coyote Valley Corridor Study Baseline Assessment* (McCullough, pers. comm., 2025). East-west movement in this area occurs primarily through culverts and bridge underpasses and along the Coyote Creek riparian corridor, although animals also attempt to move across or under Monterey Road. PG&E upgrades would occur within existing (fenced) substations, except for the new 800-foot water line, which would be constructed underground along Metcalf Road and under U.S. 101.

Direct impacts on wildlife movement would include the creation or worsening of barriers to wildlife movement. The southern portion of the proposed Grove to Skyline 320 kV Transmission Line would be constructed primarily within the existing Monterey Road right-of-way. The Metcalf to Grove 500 kV Transmission would be constructed primarily under the existing Coyote Ranch Road, with the exception of a road realignment of approximately 850 feet. The Project's proposed transmission lines would not create any additional barriers to wildlife movement along Monterey and Coyote Ranch roads, which are existing barriers. Construction of the underground transmission lines through these locations would affect wildlife movement only temporarily, during construction activities. No impacts on migratory fish movement are expected, because construction would be conducted in the dry season and would utilize HDD (trenchless) drilling techniques.

The goals and principles in the Coyote Valley Landscape Linkage report (Santa Clara Valley Open Space Authority and Conservation Biology Institute 2017) are aligned with construction of the Project, in that existing open spaces would be maintained as open spaces, aside from construction of the proposed Grove HVDC Terminal. The proposed Grove HVDC Terminal would be constructed in an existing orchard, which is currently fenced. Under existing conditions, this orchard's perimeter fence serves as a barrier to the movement of terrestrial wildlife. The western side of the orchard is also adjacent to Monterey Road and the eastern side is located within 1,000 feet of U.S. 101, which are existing barriers to wildlife movement.

Additionally, the proposed Grove HVDC Terminal's perimeter security walls have a footprint of approximately 6.3 acres, which would be smaller than the footprint of the existing perimeter fencing of approximately 13.6 acres surrounding the current orchard.

During construction, wildlife would retain the ability to move around the perimeter fencing on both sides of the work area to access habitat across the valley. During construction, speed limits in construction areas would be kept to 15 mph, and workers would be advised to take care when commuting to and from the site, reducing the potential for vehicle strikes (APM BIO-6). Vehicles would be kept to disturbance areas only, and sensitive areas (such as the Coyote Creek riparian corridor) would be marked and avoided (APMs BIO-4 and BIO-6). Night work and nighttime lighting would be minimized (APM BIO-7). Vegetation removal would be limited (APM BIO-9) and all temporary impact areas would be restored (APM BIO-1), allowing for future wildlife movement in the area. APM BIO-11 would require covering holes at the end of the workday or providing escape ramps for wildlife to prevent the inadvertent entrapment of wildlife species.

Impacts of the Project on aerial wildlife movement (birds and bats) are addressed below under Impact 3.4-7.

Implementation of the LSPGC APMs and PG&E BMPs and FPs would reduce direct and indirect impacts on wildlife corridors, but the impacts could remain significant because the LSPGC APMs and PG&E BMPs and FPs lack proscriptive measures for addressing wildlife found on-site. With LSPGC's implementation of **LSPGC Mitigation Measure 3.4-2** and **LSPGC Mitigation Measure 3.4-4**, which include specifications for avoidance buffers and measures to take if a species is found, and ecological monitoring and reporting requirements for a habitat restoration plan to be approved by CDFW, impacts on wildlife corridors would be reduced to a **less-than-significant** level.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.4-2 and LSPGC Mitigation Measure 3.4-4.
>
> **Significance after Mitigation:** Implementation LSPGC Mitigation Measure 3.4-2 and LSPGC Mitigation Measure 3.4-4 would reduce impacts associated with wildlife movement corridors to a less-than-significant level.

Operation and Maintenance

During operation and maintenance activities at the proposed Grove HVDC Terminal, wildlife would retain the ability to move around the terminal within the boundaries of the larger 13.6-acre property. Because the existing fencing, Monterey Road, and U.S. 101 already restrict wildlife movement through the site, and because the substation's fenced area would be less than half the size of the presently fenced orchard, wildlife movement conditions would not change substantially from existing conditions. Wildlife would still be able to move around the fencing to access habitat areas in the hills on both sides. Thus, impacts on wildlife movement corridors would be **less than significant**.

> **Mitigation:** None required.

Criterion e) Whether the Project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact 3.4-5: The Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (*Less than Significant with Mitigation*)

Construction

The CPUC has exclusive jurisdiction over siting, design, and construction of the Project, thus, the Project is not subject to local land use and zoning regulations or discretionary permits. However, local regulations related to biological resources were reviewed to help ensure that the Project would not conflict with local policies or ordinances protecting biological resources. The City of San José General Plan and Santa Clara County General Plan (City of San José 2024a; Santa Clara County 1994) were reviewed, and the Project was designed to comply with these general plans, where applicable. Thus, there would be no significant impact related to compliance with general plans.

Impacts on trees during Project construction would include the clearing of an orchard (approximately 2,850 non-native trees) for construction of the proposed Grove HVDC Terminal facility and approximately two non-native trees at the proposed Skyline HVDC Terminal site. Approximately 30 additional trees may be removed for the proposed Coyote Creek Road and Coyote Creek trail realignment and to construct the transmission lines and implement HDD under Coyote Creek for the proposed Metcalf to Grove 500 kV Transmission Line. A small number of trees may also be removed along Metcalf Road for the installation of the new PG&E water line. Approximately 150 trees along the frontage of Monterey Road would be preserved.

The CPUC is not subject to local ordinances but may choose to adhere to local tree removal ordinances. Should the CPUC decide to comply with local tree ordinances, implementation of **LSPGC Mitigation Measure 3.4-5: Compliance with Local Tree Ordinances** would require LSPGC to coordinate with the City of San José and Santa Clara County to obtain permission to remove protected trees and obtain any required permits for the removal of existing trees. Implementation of LSPGC Mitigation Measure 3.4-5 would reduce the Project's impacts related to local policies or ordinances to a **less-than-significant** level.

> **LSPGC Mitigation Measure 3.4-5: Compliance with Local Tree Ordinances.**
>
> All removal of street trees within the jurisdictional limits of the City of San José and Santa Clara County shall be coordinated with the responsible department in each jurisdiction (see Section 3.4.3) to obtain any necessary tree removal permits. LSPGC shall comply with all permit conditions, including tree replanting and monitoring to ensure successful replanting. LSPGC shall provide copies of the approved permits from the applicable jurisdictions before the start of construction.
>
> **Significance after Mitigation:** Implementation of LSPGC Mitigation Measure 3.4-5 would reduce impacts related to local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, to a less-than-significant level.

Operation and Maintenance

Operation and maintenance activities for the Project would be conducted within established boundaries and rights-of-way in compliance with local policies and ordinances. Thus, no impact would occur.

> **Mitigation:** None required.

Criterion f) Whether the Project would conflict with the provisions of an adopted HCP, natural community conservation plan, or other approved local, regional, or State HCP.

Impact 3.4-6: The Project would not conflict with the provisions of an adopted HCP, natural community conservation plan, or other approved local, regional, or State HCP. (*Less than Significant*)

Construction

The Project lies within the Santa Clara Valley HCP (Santa Clara County et al. 2012) and PG&E's Bay Area O&M HCP (PG&E 2017) for PG&E activities in the Bay Area. The Santa Clara Valley

HCP provides a framework for promoting the protection and recovery of natural resources, including endangered species, while streamlining the permitting process for planned development, infrastructure, and maintenance activities (Santa Clara County et al. 2012). The Santa Clara Valley HCP covers public and private utility activities within the planning limits of urban growth (as defined by the HCP) such as those associated with the Project. A majority of the Project would occur within the planning limits of urban growth and may be covered activities. The Santa Clara Valley HCP covers the Tiburon paintbrush, Santa Clara Valley dudleya, Metcalf Canyon jewelflower, bay checkerspot butterfly, California red-legged frog, foothill yellow-legged frog, California tiger salamander, northwestern pond turtle, burrowing owl, tricolored blackbird, and San Joaquin kit fox.

As provided in APMs BIO-1 through BIO-16 and LSPGC Mitigation Measure 3.4-2, if impacts on covered species are identified, LSPGC would coordinate with the stakeholders of the Santa Clara Valley HCP to obtain coverage for the Project, and would follow the appropriate conservation actions for the species identified, which may include avoidance measures, or acquisition and conservation of habitat land. If LSPGC is unable to opt into coverage from the Santa Clara HCP, LSPGC would consult with the federal and State wildlife agencies to obtain Project-specific permits. Because the Project's measures align with Santa Clara Valley HCP measures proposed to reduce impacts on these species, no conflicts with approved HCPs are anticipated.

The PG&E Bay Area O&M HCP covers 18 wildlife and 13 plant species, and its purpose is to enable PG&E to continue to conduct current and future operation and maintenance activities within the Bay Area while avoiding, minimizing, and mitigating temporary and permanent impacts on threatened- and endangered-species habitat that could result from PG&E's ongoing operation and maintenance activities (PG&E 2017). PG&E upgrades would occur within and adjacent to the existing substation facilities, in areas that are already disturbed, paved, or developed. PG&E would implement PG&E FP-1 through PG&E FP-18 (Section 3.4.4) and construction PG&E BMP BIO-1 through PG&E BMP BIO-3 (Worker Environmental Awareness Training, Burrowing Owl, and Nesting Birds) to address potential impacts on species covered under its HCP. The PG&E FPs are derived from the Bay Area O&M HCP and the BMPs are consistent with the PG&E HCP documents.

Implementation of the PG&E BMPs and FPs would reduce direct and indirect impacts related to HCP compliance, but the impacts would remain significant because the PG&E BMPs and FPs lack proscriptive measures for addressing wildlife found on-site. With LSPGC's implementation of **LSPGC Mitigation Measure 3.4-2**, which includes avoidance buffers and measures to take if a species is found, impacts related to potential HCP conflicts would be reduced to a **less-than-significant** level.

With implementation of the PG&E BMPs and FPs, supplemented by implementation of LSPGC Mitigation Measure 3.4-2, impacts related to conflicts with approved HCPs would be reduced to a **less-than-significant** level.

Mitigation: Implement LSPGC Mitigation Measure 3.4-2.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.4-2, would reduce impacts related to conflicts with approved HCPs to a less-than-significant level.

Operation and Maintenance

Operation and maintenance activities for the Project would entail work within established substations/HVDC terminals and periodic maintenance of the transmission lines and would avoid sensitive biological resources. No impact would occur.

Mitigation: None required.

Criterion g) Whether the Project would create a substantial collision or electrocution risk for birds or bats.

Impact 3.4-7: The Project would not create a substantial collision or electrocution risk for birds or bats. (*Less than Significant*)

Construction

Direct impacts on bird and bat species could include collisions and electrocution associated with the proposed HVDC terminal facilities. Impacts would be reduced because the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV Transmission Line would be constructed underground. Existing urban development within the Project vicinity already creates collision risks for bird species from the large number of existing tall towers and other potential obstacles in the area. The PG&E substation upgrades would occur within and adjacent to the existing substation facilities. The risks of collisions and electrocution associated with the construction of Project components would be minimized by using appropriate APLIC methods, as discussed in Chapter 2. APLIC methods include using bird deflectors on power lines to increase visibility and spacing lines from grounded elements far enough to prevent contact. Using these methods would prevent electrocution and minimize the likelihood of collisions. Therefore, this impact would be **less than significant**.

Mitigation: None required.

Operation and Maintenance

The risks of collisions and electrocution associated with the operation of Project towers and transmission lines would be minimized through the use of appropriate APLIC methods, as discussed in Chapter 2. Therefore, this impact would be **less than significant**.

Mitigation: None required.

3.4.7 Cumulative Effects Analysis

This section presents an analysis of the cumulative effects of the Project when considered in combination with other past, present, and reasonably foreseeable future projects that could result in cumulatively considerable impacts. Significant cumulative impacts on biological resources could occur if the incremental impacts of the Project would combine with the incremental impacts of one or more cumulative projects. Section 3.0.4, *Approach to the Cumulative Impacts Analysis*, includes Table 3.0-1, *Cumulative Projects List*, which lists past, present, and reasonably foreseeable future projects within a 2-mile radius of the Project site. Figure 3.0-1, *Cumulative Projects*, presents the cumulative projects listed in Table 3.0-1.

The geographic context for the analysis of cumulative impacts on biological resources varies depending on the considered species or resource. Generally, however, the geographic context is defined as the footprint of all Project components, including all areas of temporary or permanent ground disturbance and the surrounding natural and built communities where the Project would be constructed and operated, as described in this section.

3.4.7.1 Criterion a)

Impact C3.4-1: The Project, in combination with the cumulative projects, would not 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 CDFW or USFWS. (*Less than Significant with Mitigation*)

Impact 3.4-1 above discusses the Project's potential impacts on species identified as a candidate, sensitive, or special-status species, including but not limited to four special-status plants and 17 special-status wildlife species (e.g., invertebrates, fish, amphibians and reptiles, nesting birds, and mammals) that have moderate potential to occur within the biological resources study area. Impact 3.4-1 also discusses the Project's potential impacts on USFWS-designated critical habitat for the bay checkerspot butterfly and NMFS-designated critical habitat for the Central California Coast DPS of steelhead. Impact 3.4-1 concludes that the Project's potential construction and operation and maintenance impacts on species identified as a candidate, sensitive, or special-status species would be reduced to a less-than-significant level.

Construction

Effects on Special-Status Plants

Four special-status plant species—Tiburon paintbrush, Mt. Hamilton thistle, Santa Clara Valley dudleya, and Metcalf canyon jewelflower—have a moderate potential to occur in the biological resources study area, specifically the grassland near the existing PG&E Metcalf Substation, the proposed Grove HVDC Terminal, and staging areas 5 and 6. However, focused surveys have not been conducted to demonstrate the presence or absence of these or other special-status plants. Direct and indirect impacts could occur if these species are present within or immediately outside of the Project area.

To reduce the potential for construction impacts on special-status plants, LSPGC would implement APM BIO-2 (Rare Plant Surveys), APM BIO-3 (Preconstruction Sweeps), APM BIO-4 (Sensitive

Area Demarcation), and APM BIO-5 (Vehicle Cleaning Prior to Entering Natural Areas), as well as LSPGC Mitigation Measure 3.4-1. Additionally, all areas temporarily disturbed would be restored to approximate preconstruction conditions in accordance with the site's SWPPP (APM BIO-1: Restoration of Disturbed Areas), and spills would be prevented by secondary containment (APM HAZ-1: Site-Specific Spill Prevention, Control, and Countermeasure Plan). Implementation of the combination of these LSPGC APMs and LSPGC Mitigation Measure 3.4-1 would reduce the Project's potential impacts on special-status plants to a less-than-significant level.

For PG&E's portion of the Project work, PG&E would implement the following measures: PG&E FP-2 to park vehicles on disturbed or designated areas to minimize the disturbance area and PG&E BMP BIO-1: Worker Environmental Awareness Training.

As provided in Table 3.0-1, more than 80 cumulative projects would occur within 2 miles of the Project, with some occurring on a construction schedule similar to or overlapping that of the Project. These cumulative projects include but are not limited to residential commercial, mixed-use, office, and utility and infrastructure developments, all of which would undergo development review by local departments/jurisdictions. Also, most of these cumulative projects would occur on developed or previously disturbed land outside of the Project site. Two cumulative projects would occur within the Project site and on previously disturbed land: Westbank Terraine (cumulative project number 1), which would be developed at Staging Area 11, and Monterey Mixed Use at Staging Area 5 (cumulative project number 6).

These departmental reviews typically adhere to regulatory rules and regulations, and if necessary, elicit further environmental reviews, like that for the Project. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance and minimization measures) as part of their respective environmental review, or as existing mitigation commitments to avoid or limit their impacts on special-status plants. Therefore, Project construction and operation, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** related to special-status plants identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.4-1.
>
> **Significance after Mitigation:** With the implementation of LSPGC Mitigation Measure 3.4-1, Project construction, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

Effects on Special-Status Wildlife

There are 17 special-status wildlife species (e.g., invertebrates, fish, amphibians and reptiles, birds, and mammals) that have at least a moderate potential to occur within the study area. As discussed under Impact 3.4-1, Project construction impacts could occur on special-status invertebrates, fish, amphibians and reptiles, birds, and mammals. LSPGC would implement APMs and mitigation measures, and PG&E would implement BMPs and FPs to minimize potential impacts to special-status wildlife species during construction activities.

Invertebrates

Direct impacts of Project construction on special-status invertebrate species (e.g., western bumblebee, Crotch's bumblebee, monarch butterfly, bay checkerspot butterfly, and large marble butterfly [no protection status]) could occur through various construction activities, resulting in the permanent loss of approximately 8.3 acres of potentially suitable habitat (riparian hardwood woodland, annual grassland, and orchard areas) in the vicinity of the existing PG&E Metcalf Substation.

Indirect impacts on special-status invertebrate species during construction could include decreased suitability of grassland habitat in the Project vicinity caused by increased runoff, sedimentation, proliferation of invasive species, increased noise from construction activities and vehicles, and increased human activity. However, most of the Project would be constructed within existing roadways and previously disturbed habitat. Additionally, noise during construction activities would be short-term and not expected to be substantially higher than the existing background noise at the Project site.

To reduce the potential construction impacts on special-status invertebrates, LSPGC would implement the following measures: APM BIO-1 (Restoration of Disturbed Areas), APM BIO-3 (Preconstruction Sweeps), APM BIO-5 (Vehicle Cleaning Prior to Entering Natural Areas), APM BIO-6 (Vehicle Speed Limits), APM BIO-8 (Worker Environmental Awareness [WEAP] Training), APM BIO-15 (Special-Status Invertebrate Surveys), and APM HAZ-1 (Site-Specific Spill Prevention, Control, and Countermeasure Plan), and LSPGC Mitigation Measure 3.4-2.

For PG&E's portion of the work, PG&E would implement the following measures: PG&E FP-7 for vehicle speeds, PG&E FP-10 for minimizing the activity footprint and work duration, PG&E FP-14 for reseeding disturbed areas, and PG&E BMP BIO-1 for implementation of a WEAP. The combination of these LSPGC APMs and LSPGC Mitigation Measure 3.4-2, and PG&E BMPs and FPs, would reduce the Project's potential construction impacts on special-status invertebrates to a less-than-significant level.

Because there are more than 80 cumulative projects (see Table 3.0-1) within 2 miles of the Project, the possibility exists that at least one cumulative project could have impacts on special-status invertebrates, particularly those that are proposed for construction in suitable habitats. For instance, for cumulative projects in the vicinity of the existing PG&E Metcalf Substation and the proposed Grove HVDC Terminal, impacts on potentially suitable habitat for special-status invertebrates may occur.

However, as noted above, many of these cumulative projects would occur on developed or previously disturbed land. Further, these cumulative projects would undergo development review by local departments/jurisdictions, the results of which, if necessary, would require adherence to regulatory rules and regulations, and if necessary, would elicit further environmental reviews. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance and minimization measures) as part of their respective environmental review, or as existing mitigation commitments to avoid or limit their impact on special-status invertebrates.

Therefore, Project construction, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** on special-status invertebrates.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.4-2.
>
> **Significance after Mitigation:** With implementation LSPGC Mitigation Measure 3.4-2, Project construction, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

Fish

Direct impacts on special-status fish species (e.g., Central California Coast steelhead and southern coastal roach) are not expected because all Project construction impact areas are outside of aquatic habitat (i.e., Coyote Creek and Fisher Creek). The Project would utilize HDD techniques to install the proposed Metcalf to Grove 500 kV Transmission Line under Coyote Creek and Fisher Creek, where these species may occur. Indirect impacts on fish during construction could include decreased water quality in the Project vicinity caused by sedimentation, spills, or leaks into waterways; increased noise from construction activities; and increased human activity. However, the majority of the Project would be constructed within existing roadways and previously disturbed habitat. Additionally, noise during construction activities would be short-term and not expected to be substantially higher than the existing background noise at the Project site.

To reduce the potential construction impacts on special-status fish, LSPGC would implement the following measures: APM BIO-1 (Restoration of Disturbed Areas), APM BIO-4 (Sensitive Area Demarcation), APM BIO-5 (Vehicle Cleaning Prior to Entering Natural Areas), and APM BIO-8 (Worker Environmental Awareness [WEAP] Training), and LSPGC Mitigation Measure 3.4-2.

For PG&E's portion of the work, PG&E would implement the following measures: PG&E FP-11 for erosion and sediment control; PG&E FP-12 for covering and locating soil stockpiles away from waterways; PG&E FP-15 to prevent refueling near waterways; PG&E FP-16 to maintain a buffer area around wetlands, ponds, and riparian areas; and PG&E BMP BIO-1 for implementation of a WEAP (see Section 3.4.4). The combination of these LSPGC APMs and LSPGC Mitigation Measure 3.4-2, and PG&E FPs and BMPs, would reduce the Project's potential impacts on special-status fish to a less-than-significant level.

Many of these cumulative projects would occur on developed or previously disturbed land. Although it is unlikely that the Project would have impacts on special-status fish, there is an incremental possibility that the cumulative projects may also have similar effects. However, these cumulative projects would undergo development review by local departments/jurisdictions, the results of which, if necessary, would require adherence to regulatory rules and regulations, and if necessary, elicit further environmental reviews. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance and minimization measures) as part of their respective environmental review, or as existing mitigation commitments to avoid or limit their impacts on special-status fish.

Therefore, the Project, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** related to special-status fish.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.4-2.
>
> **Significance after Mitigation:** With implementation of the LSPGC Mitigation Measure 3.4-2, Project construction, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

Amphibians and Reptiles

The Project could result in direct impacts on special-status amphibian and reptile species (e.g., the Northwestern pond turtle, California tiger salamander, and California red-legged frog). Direct impacts could occur because of vehicle strikes during construction, vegetation clearing that removes habitat, and temporary and permanent loss of suitable upland dispersal habitat. Additionally, indirect effects on special-status amphibian and reptile species may occur through decreased water quality in the Project vicinity, spread of invasive plants, and increased noise and human activity from construction activities. However, the majority of the Project would be constructed within existing roadways and previously disturbed habitat. Additionally, noise during construction activities would be short-term and not expected to be substantially higher than the existing background noise at the Project site.

To reduce the potential construction impacts on special-status amphibians and reptiles, LSPGC would implement the following: APM BIO-1 (Restoration of Disturbed Areas), APM BIO-3 (Preconstruction Sweeps), APM BIO-4 (Sensitive Area Demarcation), APM BIO-5 (Vehicle Cleaning Prior to Entering Natural Areas), APM BIO-6 (Vehicle Speed Limits), APM BIO-7 (Outdoor Lighting Measures), APM BIO-8 (Worker Environmental Awareness [WEAP] Training), APM BIO-16 (Special-Status Amphibian Surveys), and LSPGC Mitigation Measure 3.1-2.

For PG&E's portion of the work, PG&E would implement the following measures: PG&E FP-2 to park vehicles on disturbed areas, PG&E FP-6 to minimize special-status species from taking refuge in pipes or culverts, PG&E FP-7 to reduce vehicle speeds, PG&E FP-10 to minimize the activity footprint and construction duration, PG&E FP-11 to use standard erosion and sediment control, PG&E FP-12 to cover and locate soil stockpiles away from waterways, PG&E FP-13 to cover open excavations or provide escape ramps, PG&E FP-15 to prevent refueling near waterways, and PG&E FP-16 to maintain a buffer area around wetlands, ponds, and riparian areas, and PG&E BMP BIO-1 to implement a WEAP (see Section 3.4.4). The combination of these LSPGC APMs and LSPGC Mitigation Measure 3.1-2, and PG&E BMPs and FPs, would reduce the Project's potential construction impacts on special-status amphibians and reptiles to a less-than-significant level.

As noted above, many of these cumulative projects would occur on developed or previously disturbed land. These cumulative projects would undergo development review by local departments/jurisdictions, the results of which, if necessary, would require adherence to regulatory rules and regulations, and if necessary, elicit further environmental reviews. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance

and minimization measures) as part of their respective environmental review, or as existing mitigation commitments to avoid or limit their impacts on special-status amphibians and reptiles.

Therefore, the Project, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** related to special-status amphibians and reptiles.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.1-2.
>
> **Significance after Mitigation:** With implementation of the LSPGC Mitigation Measure 3.1-2, Project construction, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

Birds

Project construction could directly affect special-status birds and bird nests that are protected by the federal MBTA, FESA, Bald and Golden Eagle Protection Act, CESA, or the California Fish and Game Code (e.g., Western burrowing owl, white-tailed kite, bald eagle, Swainson's hawk, tricolored blackbird). Direct impacts could include vehicle strikes during construction, removal of vegetation housing nests, collision and electrocution risk from Project structures, and loss of nesting habitat (i.e., riparian hardwood woodland and annual grassland) and suitable foraging habitat. Refer to Impact 3.4-7 for the discussion on electrocution and collision risks to birds. The Project may also cause indirect construction effects, including the loss or degradation of nests or roosts from Project-related noise and vibration; loss or degradation of future nesting, roosting, or foraging habitat; or reduction of prey abundance because of vegetation removal or loss, or the introduction of invasive plants. However, the majority of the Project would be constructed within existing roadways and previously disturbed habitat. Additionally, noise during construction activities would be short-term and not expected to be substantially higher than the existing background noise at the Project site.

To reduce the potential construction impacts on special-status birds, LSPGC would implement the following: APM BIO-1 (Restoration of Disturbed Areas), APM BIO-3 (Preconstruction Sweeps), APM BIO-4 (Sensitive Area Demarcation), APM BIO-6 (Vehicle Speed Limits), APM BIO-8 (Worker Environmental Awareness [WEAP] Training), APM BIO-9 (Nesting Birds and Roosting Bats Protection), APM BIO-12 (Special-Status Bird Surveys), APM BIO-13 (Raptor Surveys), APM BIO-14 (Nesting Bird Surveys), and LSPGC Mitigation Measure 3.1-2.

For PG&E's portion of the work, PG&E would implement the following measures: PG&E FP-18 to avoid active nests, PG&E BMP BIO-1 to implement a WEAP, PG&E BMP BIO-2 to conduct surveys for burrowing owl, and PG&E BMP BIO-3 to avoid active nests. The combination of these LSPGC APMs and LSPGC Mitigation Measure 3.1-2, and PG&E BMPs and FPs, would reduce the Project's potential construction impacts on special-status birds to a less-than-significant level.

As noted above, many of the cumulative projects would occur on developed or previously disturbed land but may involve the removal of trees or other suitable nesting habitat. These cumulative projects would undergo development review by local departments/jurisdictions, the results of which, if necessary, would require adherence to regulatory rules and regulations, and if necessary,

elicit further environmental reviews. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance and minimization measures) as part of their respective environmental review, or as existing mitigation commitments to avoid or limit their impacts on special-status and nesting birds.

Therefore, the Project, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** related to special-status nesting birds.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.1-2.
>
> **Significance after Mitigation:** With implementation of the LSPGC Mitigation Measure 3.1-2, Project construction, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

Mammals

Direct impacts on special-status mammal species (e.g., American badger, dusky-footed woodrat, bats) could result from potential vehicle strikes; destruction of nests or burrows during construction and vegetation clearing; entrapment in excavations; and temporary and permanent loss of suitable habitat. Direct impacts on bat species could result from tree removal and vegetation clearing in bat roost habitat, collision risk from Project structures, and permanent loss of foraging habitat and potential roosting habitat. Refer to Impact 3.4-7 for the discussion on electrocution and collision risks to bats. Additionally, indirect impacts during construction could include decreased habitat suitability due to noise or increased human activity. Noise from construction activities could interfere with mammals foraging or caring for young. However, most of the Project would be constructed within existing roadways and previously disturbed habitat, and noise during construction activities would be short-term and would not likely be substantially higher than the existing background noise at the Project site.

To reduce the potential construction impacts on special-status mammals, LSPGC would implement the following: APM BIO-1 (Restoration of Disturbed Areas), APM BIO-3 (Preconstruction Sweeps), APM BIO-9 (Nesting Birds and Roosting Bats Protection), APM BIO-4 (Sensitive Area Demarcation), APM BIO-6 (Vehicle Speed Limits), APM BIO-7 (Outdoor Lighting Measures), APM BIO-8 (Worker Environmental Awareness [WEAP] Training), APM BIO-10 (San Joaquin Kit Fox [SJKF] Surveys), LSPGC Mitigation Measure 3.1-2, and LSPGC Mitigation Measure 3.13-1a.

For PG&E's portion of the work, PG&E would implement the following measures: PG&E FP-2 to park vehicles on disturbed areas, PG&E FP-6 to minimize special-status species from taking refuge in pipes or culverts, PG&E FP-7 to reduce vehicle speeds, PG&E FP-10 to minimize the activity footprint and construction duration, PG&E FP-13 to cover open excavations or provide escape ramps, and PG&E BMP BIO-1 to implement a WEAP. The combination of these LSPGC APMs and LSPGC mitigation measures, and PG&E BMPs and FPs, would reduce the Project's potential construction impacts on special-status mammals to a less-than-significant level.

As noted above, many of the cumulative projects would occur on developed or previously disturbed land but may involve the removal of trees or other suitable bat roosting habitat. These

cumulative projects would undergo development review by local departments/jurisdictions, the results of which, if necessary, would require adherence to regulatory rules and regulations, and if necessary, elicit further environmental reviews. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance and minimization measures) as part of their respective environmental review, or as existing mitigation commitments to avoid or limit their impacts on special-status mammals.

Therefore, the Project, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** related to special-status mammals.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.1-2 and LSPGC Mitigation Measure 3.13-1a.
>
> **Significance after Mitigation:** With implementation of the LSPGC Mitigation Measure 3.1-2 and LSPGC Mitigation Measure 3.13-1a, Project construction, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

Critical Habitat

USFWS-designated critical habitat for the bay checkerspot butterfly and NMFS-designated critical habitat for the Central California Coast DPS of steelhead are located within the Project site near the existing PG&E Metcalf Substation and proposed Grove HVDC Terminal. Additionally, critical habitat for steelhead is located in the Project vicinity at the Guadalupe River approximately 1 mile north of the existing PG&E San Jose B Substation and proposed Skyline HVDC Terminal.

Critical habitat for bay checkerspot butterfly could be directly affected by the Project in the Tulare Hill Ecological Preserve vicinity along Monterey Road, where a small, mapped section of the designated critical habitat extends into Monterey Road, which would be impacted by the Project. However, this area is mostly developed and disturbed due to the presence of the roadway and lacks the physical and biological features (e.g., presence of host and nectar plants) of the butterfly's critical habitat. This area would be directly affected, but the impacts are entirely within a previously disturbed roadway.

No critical habitat for steelhead would be affected by the Project because the portion of designated critical habitat within the Guadalupe River is more than 1 mile from the Project, and the proposed Metcalf to Grove 500 kV Transmission Line would cross under Coyote Creek using HDD for its construction. The proposed Metcalf to Grove 500 kV Transmission Line would be fully undergrounded through this section, and no impacts to the waterway are anticipated. If unanticipated impacts, such as fracturing-out ("frac-out" the unintentional release of drilling fluids to the ground surface) occur, HDD operations would be halted or redirected. Additionally, construction would occur during dry periods for Coyote Creek, if feasible, as stated in Chapter 2. As a result, the Project is not likely to adversely modify critical habitat because of habitat loss, fragmentation, or changes to habitat conditions. No other designated or proposed critical habitats would be impacted by Project construction. Therefore, direct and indirect impacts on designated critical habitat areas would be less than significant.

As noted above, many of the cumulative projects would occur on developed or previously disturbed land and none would occur within USFWS-designated critical habitat for bay checkerspot butterfly or NMFS-designated critical habitat for steelhead (i.e., Coyote Creek or the Guadalupe River). Therefore, the cumulative projects would have no direct impacts related to designated critical habitat for bay checkerspot or Central California Coast DPS of steelhead. For these reasons, Project construction, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** on critical habitats.

Mitigation: None required.

Operation and Maintenance

The Project's operational activities would not involve permanent habitat impacts and would generate lower levels of traffic and human activity than the Project's construction activities. To reduce potential direct impacts (i.e., from traffic and human activity) during Project operation and maintenance, LSPGC would implement the following measures: APM BIO-6 (Vehicle Speed Limits) and APM BIO-8 (Worker Environmental Awareness [WEAP] Training). Indirect operational impacts could include decreased terrestrial, wetland, and aquatic habitat quality in the Project's vicinity caused by spills or leaks, runoff, sedimentation, invasive species proliferation, vehicle noise, and human activity. Indirect impacts from invasive species proliferation would be minimized through adherence to APM BIO-5 (Vehicle Cleaning Prior to Entering Natural Areas), which requires vehicle cleaning before entering natural areas. All areas temporarily disturbed would be restored to approximate preconstruction conditions in accordance with the site SWPPP (APM BIO-1: Restoration of Disturbed Areas), and spills prevented by secondary containment (APM HAZ-1: Site-Specific Spill Prevention, Control, and Countermeasure Plan [SPCCP]).

Most of the Project would be constructed within existing roadways and previously disturbed habitat. Additionally, noise during operation and maintenance activities would be short-term and not expected to be substantially higher than the existing background noise at the Project site. Through implementation of these LSPGC APMs, the Project's operation and maintenance activities would have a less-than-significant impact on species identified as a candidate, sensitive, or special-status species.

Direct impacts to special-status species or critical habitat from operation and maintenance activities are also not expected because the portion of bay checkerspot butterfly critical habitat within the Project site is located within the disturbed right-of-way and does not contain suitable habitat. Additionally, no maintenance activities would be expected to occur within Coyote Creek that would affect critical habitat for steelhead.

In consideration of the cumulative projects' (Table 3.0-1) operation and maintenance activities, there is a possibility that a potential impact could occur on special-status species or critical habitat. The types of development for the cumulative projects include, but are not limited to, residential, commercial, mixed-use, office, and utility and infrastructure developments. However, as noted in the discussions above, cumulative projects would have to undergo local departmental review, which would necessitate disclosing proposed construction activities and, in particular, operation and maintenance activities. In a case when a cumulative project is likely to have potentially significant

operation and maintenance impacts, the cumulative project, as required by applicable rules and regulations, would have to identify avoidance, minimization, and/or compensatory mitigation measures that commensurate with the level of potential impact before project commencement.

Therefore, Project operation and maintenance, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** related to special-status species.

Mitigation: None required.

3.4.7.2 Criterion b)

Impact C4.3-2: The Project, in combination with the cumulative projects, would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS. (*Less than Significant with Mitigation*)

Riparian habitat and other sensitive habitat areas, including riparian vegetation and wetlands, are present within the Project area. Construction impacts on riparian habitat would include 3.5 acres of temporary disturbance to riparian (hardwood woodland) habitat and less than 0.1 acre of permanent impact. Additionally, it is unlikely that Project operations would affect riparian habitats.

Wetlands and other aquatic resources would be avoided to the extent practicable with the implementation of APM BIO-4 (Sensitive Area Demarcation). All temporary impacts on sensitive vegetation communities (e.g., riparian) would be restored in accordance with APM BIO-1 (Restoration of Disturbed Areas) and LSPGC Mitigation Measure 3.4-4. Implementing these measures would reduce the Project's impact to a less-than-significant level.

As shown in Figure 3.0-1, several cumulative projects would occur near the Project and on a similar timeline. Many of these cumulative projects would occur on developed or previously disturbed land. These cumulative projects would undergo development review by local departments/jurisdictions, the results of which, if necessary, would require adherence to regulatory rules and regulations, and if necessary, elicit further environmental reviews. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance and minimization measures) as part of their respective environmental review, or as existing mitigation commitments to avoid or limit their impacts on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.

When considered together, the Project's contribution to cumulative impacts on riparian habitat or other identified habitats would not be cumulatively considerable. Therefore, with the implementation of the LSPGC APMs and LSPGC Mitigation Measure 3.4-4, the Project's cumulative impact on riparian habitat or other identified habitats would be **less than significant**.

Mitigation: Implement Mitigation Measure 3.4-4.

Significance after Mitigation: With implementation of LSPGC Mitigation Measure 3.4-4, the Project, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

3.4.7.3 Criterion c)

Impact C3.4-3: The Project, in combination with the cumulative projects, would not have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant*)

There are four mapped streams/waterways that cross the Project; however, no direct impacts on these areas or other jurisdictional waters or wetlands are expected to occur. The Project would cross under Coyote Creek as part of the proposed Metcalf to Grove 500 kV Transmission Line and under Fisher Creek for the proposed Grove to Skyline 320 kV Transmission Line. However, this would involve HDD, and the proposed Metcalf to Grove 500 kV Transmission Line and proposed Grove to Skyline 320 kV Transmission Line would be fully undergrounded through these sections of the creeks and no impacts on the jurisdictional waterways are anticipated.

If unanticipated impacts, such as fracturing-out ("frac-out" the unintentional release of drilling fluids, typically bentonite, to the ground surface) occur, HDD operations would be halted or redirected, as stated in Chapter 2. Project operation and maintenance would occur on previously disturbed lands and any sensitive habitats, such as wetlands or streams, would be protected from erosion or spills by the management plan and BMPs contained in the Project's SWPPP (APM BIO-1, APM HAZ-10). Therefore, operation and maintenance would not result in a substantial adverse effect on waters of the U.S. or waters of the State.

Most of the cumulative projects would be constructed and operated on developed or previously disturbed upland. These cumulative projects would undergo development review by local departments/jurisdictions, the results of which, if necessary, would require adherence to regulatory rules and regulations, and if necessary, elicit further environmental reviews. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance and minimization measures) as part of their respective environmental review, or as existing mitigation commitments to avoid or limit their impacts on any state or federally protected wetlands identified in local or regional plans, policies, regulations, or by regulating agencies.

When considered together, the Project's contribution to cumulative impacts on waters of the U.S. or waters of the State would not be cumulatively considerable. Therefore, the Project's cumulative impact on waters of the U.S. or waters of the State would be **less than significant**.

Mitigation: None required.

3.4.7.4 Criterion d)

Impact C3.4-4: The Project, in combination with the cumulative projects, would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (*Less than Significant with Mitigation*)

The Project is located mainly within developed areas within the city of San José where there are no large wildlife movement corridors, which is also generally true of the cumulative projects. However, the southern portion of the Project is located within Coyote Valley, a known wildlife

movement corridor between the Santa Cruz Mountains and the Diablo Range. The high degree of residential, commercial, and industrial development in most of the Project site substantially fragments the habitat and limits wildlife movement. Although these developed areas do not provide corridors for wildlife movement, the southeastern portion of the Project near Coyote Creek and the northern portion near the Guadalupe River provide riparian corridors and waterways used by wildlife.

Direct impacts on wildlife movement would include creating new or worsening existing barriers to wildlife movement. The southern portion of the proposed Grove to Skyline 320 kV Transmission Line near Coyote Creek would be constructed primarily within the existing Monterey Road right-of-way, which is not expected to impact wildlife movement. The proposed Metcalf to Grove 500 kV Transmission Line would primarily be constructed under the existing Coyote Ranch Road, except for a road realignment of approximately 850 feet. The Project's proposed transmission lines would not create any additional barriers to wildlife movement along the Monterey and Coyote Ranch roads, which are existing barriers. Construction of the underground transmission lines through these locations would only potentially affect wildlife movement temporarily during construction activities. Additionally, no impacts would be expected to occur on migratory fish movement because construction would be conducted in the dry season and use HDD techniques.

Additionally, construction of the proposed Grove HVDC Terminal site would occur in an existing orchard, which is currently fenced and serves as a barrier to wildlife movement. The western side of the orchard is also adjacent to Monterey Road, and the eastern side is located within 1,000 feet of U.S. 101, which are existing barriers to wildlife movement. The proposed Grove HVDC Terminal perimeter security walls have a footprint of approximately 6.3 acres, which would be smaller than the existing perimeter fence footprint of 13.6 acres. During construction, wildlife would continue to have the ability to move around the perimeter fencing on both sides of the work area.

Project operations are unlikely to affect wildlife movement and any potential nursery areas. operation and maintenance activities would avoid stream corridors and aquatic species' habitat. operation and maintenance activities at the proposed Grove HVDC Terminal are also not expected to affect wildlife movement. Wildlife would continue to be able to move around the terminal with less restriction than under existing conditions. Additionally, the existing fencing at Monterey Road to the west and U.S. 101 to the east already restricts wildlife movement through the site.

LSPGC would implement the following measures to reduce potential impacts on wildlife movement or nursery sites: APM BIO-1 (Restoration of Disturbed Areas), APM BIO-4 (Sensitive Area Demarcation), APM BIO-6 (Vehicle Speed Limits), APM BIO-7 (Outdoor Lighting Measures), APM BIO-9 (Nesting Birds and Roosting Bats Protection), APM BIO-11 (Excavation Wildlife Safety Best Management Practices), Mitigation Measure 3.4-2 (Protection of Special-status Wildlife), and Mitigation Measure 3.4-4 (Habitat Restoration and Monitoring). Potential cumulative impacts on aerial wildlife movement (birds and bats) from the Project are addressed under Impact 3.4-7.

The majority of the cumulative projects would be constructed and operated on developed or previously disturbed land. These cumulative projects would undergo development review by local departments/jurisdictions, the results of which, if necessary, would require adherence to regulatory rules and regulations, and if necessary, elicit further environmental reviews. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance and minimization measures) as part of their respective environmental review, or as existing mitigation commitments to avoid or limit their impacts on wildlife movement or nursery sites.

When considered together, the Project's contribution to cumulative impacts related to this criterion would not be cumulatively considerable. Therefore, with the implementation of the LSPGC APMs, LSPGC Mitigation Measure 3.4-2, and LSPGC Mitigation Measure 3.4-4, the Project's cumulative impact would be **less than significant**.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.4-2 and LSPGC Mitigation Measure 3.4-4.
>
> **Significance after Mitigation:** With implementation of the LSPGC Mitigation Measure 3.4-2 and LSPGC Mitigation Measure 3.4-4, the Project, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

3.4.7.5 Criterion e)

Impact C.3.4-5: Project construction, in combination with the cumulative projects, would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (*Less than Significant with Mitigation*)

The CPUC has jurisdiction over the Project's siting, design, and construction of the Project, and thus, Project is not subject to local land use or zoning regulations or discretionary permits. However, local regulations related to biological resources were reviewed to help ensure that the Project would not conflict with local policies or ordinances protecting biological resources. The City of San José General Plan and Santa Clara County General Plan (City of San José 2024a; Santa Clara County 1994) were reviewed, and the Project was designed to comply with these general plans, where applicable. Thus, there would be no significant impact related to compliance with these general plans.

Impacts to trees during Project construction would include clearing an orchard for construction of the proposed Grove HVDC Terminal site(approximately 2,850 non-native trees) and approximately two (non-native) trees at the proposed Skyline HVDC Terminal site. Additionally, approximately 30 additional trees may be removed for the proposed Coyote Creek Road and Coyote Creek trail realignment and to construct the transmission lines and implement the HDD under Coyote Creek for the proposed Metcalf to Grove 500 kV Transmission Line. If the CPUC decided to comply with local tree ordinances, the implementation of LSPGC Mitigation Measure 3.4-5 (Compliance with Local Tree Ordinances) would require LSPGC to coordinate with the City of San José and Santa Clara County to obtain permission to remove protected trees and obtain any required permits for the removal of existing trees. Implementation of LSPGC Mitigation Measure 3.4-5 would reduce impacts of the Project on local policies or ordinances to a less-than-significant level.

Operation and maintenance of the Project would be conducted within established boundaries and rights-of-way in compliance with local policies and ordinances. Thus, there would be no impact from operation and maintenance activities.

As discussed above, cumulative projects would undergo development review by local departments/jurisdictions, which would require adherence to regulatory rules and regulations, and if necessary, elicit further environmental reviews. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance and minimization measures) as part of their respective environmental review, or as existing mitigation commitments to avoid or limit their impacts related to local policies or ordinances protecting biological resources, such as tree preservation policies or ordinances.

However, given these considerations, the Project's nominal contribution to cumulative impacts related to this criterion would not be cumulatively considerable. Therefore, with the implementation of LSPGC Mitigation Measure 3.4-5, the Project, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** related to this criterion.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.4-5.
>
> **Significance after Mitigation:** With implementation of LSPGC Mitigation Measure 3.4-5, the Project, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

3.4.7.6 Criterion f)

Impact C.3.4-6: Project construction, in combination with the cumulative projects, would not conflict with the provisions of an adopted HCP, natural community conservation plan, or other approved local, regional, or State HCP. (*Less than Significant*)

The Project lies within the Santa Clara Valley HCP (SCVHA 2012) and PG&E's Bay Area O&M HCP (PG&E 2017). Implementation of PG&E FP-1 through PG&E FP-18 (Section 3.4.4), PG&E BMP BIO-1 through PG&E BMP BIO-3 (WEAP training, Burrowing Owl, and Nesting Birds), and LSPGC Mitigation Measure 3.4-2 (Protection of Special-status Wildlife) would reduce impacts of the Project related to any potential conflicts with approved HCPs to a less-than-significant level.

Project operation and maintenance would not conflict with the provisions of an adopted HCP, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. Therefore, Project operation and maintenance would not be cumulatively considerable regarding any potential conflicts with conservation plans.

The cumulative projects are expected to undergo applicable jurisdictional reviews, which include consistency reviews with approved local, regional, or state habitat conservation plans. If, as a result of these reviews, a cumulative project may conflict with the provisions of an approved HCP, the proponent of the cumulative project would be expected to consult with the appropriate agencies to remediate such conflict.

The implementation of PG&E BMPs and FPs, supplemented by implementation of LSPGC Mitigation Measure 3.4-2 and the nominal contribution of this Project to cumulative impacts to this criterion would not be cumulatively considerable. For these reasons, the Project, in combination with the cumulative projects would not conflict with the provisions of an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP, and this cumulative impact would be **less than significant**.

Mitigation: Implement LSPGC Mitigation Measure 3.4-2.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.4-2 would reduce impacts related to conflicts with approved HCPs to a less-than-significant level.

3.4.7.7 Criterion g)

Impact C.3.4-7: The Project, in combination with the cumulative projects, would not create a substantial collision or electrocution risk for birds or bats. (*Less than Significant with Mitigation*)

As described in Chapter 2, the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV Transmission Line would traverse underground for approximately 14.2 miles, and the proposed Skyline to San Jose B 230 kV Transmission Line would span overhead for approximately 100 feet at the proposed Skyline HVDC Terminal. Direct impacts on bird and bat species could include collision and electrocution associated with the proposed overhead HVDC terminal facilities.

These impacts would be reduced because most of the proposed Grove to Skyline 320 kV Transmission Line and the proposed Metcalf to Grove 500 kV Transmission Line would be constructed underground and only a small portion would be aboveground. Additionally, the risks of collision and electrocution associated with the construction of Project components to birds and bats would be reduced by using appropriate APLIC methods, as discussed in Chapter 2.

It is expected that the cumulative projects, particularly those that propose to construct aboveground/overhead infrastructure, would consider industry standard design and safety specifications, including considerations to collision or electrocution risk for avians. These include high-rise development, such as, but not limited to, 27 West (cumulative project number 11), SJSU Student Housing Tower (cumulative project number 13), Eterna Tower (cumulative project number 14) Almaden Corner Hotel (cumulative project number 27), South Almaden Offices (cumulative project number 46), and The Orchard Office ("Valley Title") (cumulative project number 49).

Further, cumulative projects would undergo development review by local departments/jurisdictions, the results of which, if necessary, would require adherence to regulatory rules and regulations, and if necessary, elicit further environmental reviews. For these reasons, the Project, in combination with the cumulative projects would not create a substantial collision or electrocution risk for birds or bats, and this cumulative impact would be **less than significant**.

Mitigation: None required.

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3.5 Cultural Resources

This section evaluates the potential impacts of the Project on cultural resources. It includes information about the physical and regulatory setting and identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. The information and analysis are based in part on the cultural resources study presented in the *Cultural Resource Technical Report for the Power Santa Clara Valley Project, Santa Clara County, California*, prepared by PanGIS Inc. (2024). This report is confidential and on file at the Northwest Information Center of the California Historical Resources Information System.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions for the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to cultural resources.

A *historical resource* is defined in CEQA Guidelines Section 15064.5(a) as one that is listed in, or determined to be eligible for listing in, the California Register of Historical Resources (California Register). In addition, a resource that (i) is identified as significant in a local register of historical resources,[1] or (ii) is deemed significant due to its identification in a historical resources survey meeting the requirements of California Public Resources Code (PRC) Section 5024.1(g) is presumed to be a historical resource "unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant." (PRC § 21084.1.) PRC Section 21084.1 also permits a lead agency to determine that a resource constitutes a historical resource even if the resource does not meet the foregoing criteria.

For the purposes of this EIR, historical resources are divided into "architectural resources" and "archaeological resources." When applicable, the distinction between architectural resources and archaeological resources hinges on the condition of the resource; if a resource is considered a ruin (e.g., a building lacking structural elements or a structure lacking its historic configuration), it is classified as an archaeological resource. *Architectural resources* include historic buildings, structures (e.g., bridges, canals, roads, utility lines, railroads), objects (e.g., monuments, boundary markers), and districts. *Archaeological resources* include historic-era and pre-contact remnants of past and existing cultures, typically recorded as sites or districts. *Historic-era archaeological resources* are those archaeological resources that date to the period after Euroamerican settlement of an area and may include foundations, landscaping, refuse scatters, mining features, and railroad grades. *Pre-contact archaeological resources* are those archaeological resources that date to the period prior to Euroamerican settlement of an area and may include human burials, lithic scatters, quarries, habitation sites, temporary camps, ceremonial sites, and trails.

The Project area, as analyzed in this section, includes all of the following:

- The entirety of the preferred alternative alignment

[1] Please see Section 3.5.3 for information about local register criteria.

- Skyline high-voltage direct current (HVDC) Terminal
- Grove HVDC Terminal
- Grove to Skyline 320-kilovolt (kV) direct current (DC) Transmission Line (Grove to Skyline 320 kV Transmission Line)
- Metcalf to Grove 500 kV alternating current (AC) Transmission Line (Metcalf to Grove 500 kV Transmission Line)
- Skyline to San Jose B 230 kV AC Transmission Tie Line (Skyline to San Jose B 230 kV Transmission Tie Line)
- Modifications to existing PG&E San Jose B and PG&E Metcalf Substations
- Ancillary facilities as described in Chapter 2, *Project Description*
- Temporary staging and laydown areas for construction of the Project

The LSPGC components of the Project, which are also described as the LSPGC Project area, include all components described above except the modifications to existing PG&E substations. The PG&E components of the Project include only modifications to the existing PG&E substations and compose the PG&E Project area.

3.5.1 Environmental Setting

The Project area is located in the Santa Clara Valley at the southern end of San Francisco Bay, and is bordered by the Santa Cruz Mountains to the west and the Diablo Range to the east. The valley encompasses an intricate network of historic waterways that once flowed freely from the surrounding hills and mountain ridges to the bay. Most notable are the Guadalupe River and Llagas and Coyote creeks, which are within and adjacent to the Project area. The region supports a variety of natural vegetation communities, including salt marsh, scrub brush, grassland, and foothill woodlands, and is filled with abundant natural resources. Before the missionization of the San Francisco Bay Area (Bay Area) by the Spanish, deer, elk, and waterfowl were plentiful, as were marine and bay resources such as seals, otters, abalone, mussels, oysters, clams, and numerous fish species (Askevold et al. 2007). Franciscan chert was an easily obtainable local raw material for stone tools at quarries around the Bay Area. Obsidian could be obtained from the Annadel and Napa Glass Mountain quarries north of the Bay Area (Moratto 1984).

The underlying soil of the Project area consists predominantly of Holocene-age and Pleistocene-age (11,000–12,000 years ago and 120,000–126,000 years ago, respectively) alluvial deposits with minor intrusions of clay and gravel (USGS 2006). These deposits consist of Urbanland-Elpaloalto complex, Urbanland-Hangerone complex, Urbanland-Newpark complex, Yolo silty clay loam, Riverwash, Cortina gravelly loam, Garretson loam, and Los Robles clay loam (NRCS 2025).

3.5.1.1 Pre-contact Setting

Archaeologists developed individual cultural chronological sequences tailored to the archaeology and material culture of each subregion of California. Each of these sequences is based principally on the presence of distinctive cultural traits and stratigraphic separation of deposits. Milliken et al. (2007) provides a framework for the interpretation of the Bay Area and divides human history

in the Bay Area into three periods: the *Early Period* (8000–3500 B.C.), the *Middle Period* (500 B.C.–A.D. 1050), and the *Late Period* (A.D. 1050–1550). In many parts of California, four periods are defined, the fourth being the Paleoindian Period (11,500–8,000 B.C.), which is characterized by big-game hunters occupying broad geographic areas. Evidence of human habitation in the Bay Area during the Paleoindian Period has not yet been discovered. Economic patterns, stylistic aspects, and regional phases further subdivide cultural periods into shorter phases. This scheme uses economic and technological types, socio-politics, trade networks, population density, and variations of artifact types to differentiate between cultural periods.

The Early Period is characterized by the milling slab and handstone and large wide-stemmed and leaf-shaped projectile points. The first cut shell beads and the mortar and pestle are first documented in burials during the Early Period (Middle Archaic, 3500–500 B.C.), indicating the beginning of a shift to sedentism.

During the Middle Period, which includes the Lower Middle Period (Initial Upper Archaic, 500 B.C.–A.D. 430) and the Upper Middle Period (Late Upper Archaic, A.D. 430–1050), geographic mobility may have continued, although groups began to establish longer-term base camps in localities from which a more diverse range of resources could be exploited. The first rich black middens are recorded from this period. The addition of milling tools, obsidian, and chert concave-base projectile points, as well as the occurrence of sites in a wider range of environments, suggest that the economic base was more diverse. By the Upper Middle Period, mobility was being replaced by the development of numerous small villages. Around A.D. 430, a dramatic cultural disruption occurred, as evidenced by the sudden collapse of the Olivella saucer bead trade network (Milliken et al. 2007).

During the Initial Late Period (Lower Emergent, A.D. 1050–1550), social complexity developed toward the lifeways of large, central villages with resident political leaders and specialized activity sites. Artifacts associated with the period include the bow and arrow, small corner-notched projectile points, and a diversity of beads and ornaments (Milliken et al. 2007).

3.5.1.2 Ethnographic Setting

The Project area is located on the ancestral lands of the Tamien-speaking Ohlone, near areas ethnographically associated with the Santa Clara village group (Levy 1978). The Ohlone once occupied a large territory from San Francisco Bay in the north to the Big Sur and Salinas rivers in the south. In 1770, the approximate population of the Tamien speakers reached 1,200, substantially more than the typical size of other Ohlone groups, which ranged from 40 to 200 members. During this year, groups were documented to have lived in approximately 50 separate and politically autonomous nations.

Economically, the Ohlone traditionally engaged in hunting and gathering. Their ancestral territory encompasses both coastal and open valley environments that contained a wide variety of resources, including grass seeds, acorns, bulbs and tubers, bears, deer, elk, antelope, bird species, rabbits, and other small mammals. Archaeological investigations at nearby pre-contact sites indicate that although Native Americans mainly utilized the historic marshland in the Project vicinity for resource procurement, including the collection of fish, shellfish, plants, and sea mammals,

habitation and burial sites were not uncommon along the historic bay margins (Moratto 1984; Milliken 1995). The Ohlone traditionally acknowledged private ownership of goods and songs and village ownership of rights to land and/or natural resources; they required monetary payment for access rights in the form of clamshell beads.

The Ohlone encountered Spanish explorers as early as the 17th century. In the next century, Juan Bautista de Anza and Pedro Font led an expedition through the area in early 1776, leaving a substantial record of their travels. The explorers commented on the level land and good pasturage, concluding that the area would be an excellent site for settlement. During his exploration, Anza recorded three native villages, each reportedly comprising approximately 70 people. Anza noted some "paths and trails" heading to the south and concluded that the same tribe of Indians dwelled throughout the entire valley (Bolton 1930).

Exposure to the Spanish increased during the mid to late 18th century when the Spanish focused on the founding of presidios, missions, and secular towns. The Pueblo of San José de Guadalupe was California's first civilian settlement and one of three towns founded to administer and coordinate the missions and presidios of Alta California (Hendry and Bowman 1940). By the late 18th century, the Embarcadero de Santa Clara at the mouth of the Guadalupe River, where the river flowed into San Francisco Bay, had developed as a trading port and separate community. Mission Santa Clara provided for the religious needs of the pueblo and, as one of seven missions located within the Ohlone territory, would have had the greatest impact on the indigenous population living in the Santa Clara Valley (Levy 1978). During the Mission Period (1770 to 1835), native populations, especially those along the California coast, were forcibly brought to missions by Spanish missionaries. The Ohlone people experienced cataclysmic changes in almost all areas of their lives as a result of missionization, particularly a massive decline in population caused in part by introduced diseases and a declining birth rate.

After Mexico's secularization of the mission system in 1833, most Native Americans gradually left the missions and established rancherias in the surrounding areas (Levy 1978). The Ohlone lands were distributed in vast grants to Mexican government officials, military personnel, and public citizens. The Project area was once a part of land grants from Pueblo Lands of San José, Rancho San Juan Bautista, and Rancho Santa Teresa (PanGIS 2024; Arbuckle and Rambo 1968). These land grants, referred to as ranchos, were used primarily for livestock raising, processing, and gathering places (Bean and Rawls 1998). Those Ohlone who survived the mission and rancho periods sought sanctuary throughout the Bay Area, forming communities where their cultural practices, beliefs, and fight for historical and cultural preservation continue today.

3.5.1.3 Historical Setting

Santa Clara County, one of the original counties of California, was formed in 1850. San José has remained the county seat since statehood. From its early beginnings, agriculture and ranching have been important industries to the people and local economy of Santa Clara County. The fertile soil and the region's desirable climate attracted farmers with a variety of agricultural interests. Wheat, barley, and oats were commonly grown in the area.

Santa Clara County's population rapidly increased as a result of the Gold Rush, followed later by the construction of the railroad to San Francisco in 1864 and completion of the Transcontinental Railroad in 1869. Alviso, located at the northern edge of the county, was established in 1840 near the Embarcadero de Santa Clara and became a busy shipping port. However, in 1864, the newly opened railroad line from San Francisco to San José bypassed Alviso, and the port soon declined as rail transport became the favored method of transportation over shipping.

At the turn of the 20th century, fruit orchards replaced many of the grain fields. During the 1930s, the valley became a vital food source, growing and distributing one-quarter of the world's agricultural products. Vast fruit orchards eventually replaced row crops. During this period, the Bayside Canning Company, the third-largest cannery in California, brought money and workers to the area. Later during World War II, agricultural industrial employment in the canneries and food packing factories resulted in a suburban construction boom.

3.5.2 Regulatory Setting

3.5.2.1 Federal

Although no federal nexus is associated with the Project, the following information regarding federal laws addressing cultural resources is presented to provide context and continuity with State laws.

National Historic Preservation Act

The principal federal law addressing historic properties is the National Historic Preservation Act (NHPA), as amended (United States Code Title 54, Section 300101 et seq.), and its implementing regulations (Code of Federal Regulations [CFR] Title 36, Part 800). Section 106 requires a federal agency with jurisdiction over a proposed federal action (referred to as an *undertaking* under the NHPA) to take into account the effects of the undertaking on historic properties, and to provide the Advisory Council on Historic Preservation and other interested parties an opportunity to comment on the undertaking.

The term *historic properties* refers to "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register" (36 CFR Part 800.16[*l*][1]). The implementing regulations (36 CFR Part 800) describe the process for identifying and evaluating historic properties, assessing the potential adverse effects of federal undertakings on historic properties, and seeking to develop measures to avoid, minimize, or mitigate adverse effects. The Section 106 process does not require the preservation of historic properties; instead, it is a procedural requirement mandating that federal agencies take into account effects on historic properties from an undertaking before approval.

The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Officer, federally recognized Indian tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects on such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties. The agency also must provide an opportunity for public involvement

(36 CFR 800.1[a]). Consultation with Indian tribes regarding issues related to Section 106 and other authorities (such as the National Environmental Policy Act and Executive Order 13007, "Indian Sacred Sites") must recognize the government-to-government relationship between the federal government and Indian tribes, as set forth in Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" (*Federal Register* Title 65, page 87249, November 9, 2000), and the Presidential Memorandum of November 5, 2009.

National Register of Historic Places

The National Register of Historic Places (National Register) 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" (36 CFR 60.2). The National Register recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, pre-contact archaeological sites, historic-period archaeological sites, traditional cultural properties, and cultural landscapes. As noted above, a resource that is listed in or eligible for listing in the National Register is considered "historic property" under Section 106 of the NHPA.

To be eligible for listing in the National Register, a property must be significant in American history, architecture, archaeology, engineering, or culture. Properties of potential significance must meet one or more of the following four established criteria:

1. Are associated with events that have made a significant contribution to the broad patterns of our history.
2. Are associated with the lives of persons significant in our past.
3. 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.
4. Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of 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 2002). The National Register recognizes 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.

Ordinarily, religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are not considered eligible for the National Register unless they meet one of the "Criteria Considerations" (A–G), in addition to meeting at least one of the four significance criteria and possessing integrity (U.S. Department of the Interior 2002).

3.5.2.2 State

CEQA and the California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). Certain resources are determined by the statute to be automatically included in the California Register, including those formally determined eligible for or listed in the National Register (PRC Section 5024.1[d][1]). These resources are termed *historical resources*.

Based on Section 15064.5(a) of the CEQA Guidelines, historical resources include but are not limited to any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant or that is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, a resource is considered by a lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register (PRC Section 5024.1) or qualifies as a "unique historical resource" (PRC Section 21083.2).

To be eligible for listing in the California Register, a cultural resource must meet one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

For a resource to be eligible for listing in the California Register, it must also retain enough integrity of location, design, setting, materials, workmanship, feeling, and association to be recognizable as a historical resource and to convey its significance. Resources that are less than 45 years old are generally not considered eligible for listing in the California Register (OHP 1995).

Impact assessment under CEQA considers only historically significant cultural resources; that is, resources that meet CEQA criteria for eligibility to the California Register (historical resources) or qualify as unique archaeological resources, as detailed below.

CEQA considers archaeological resources as an intrinsic part of the physical environment and thus requires that the potential of any project to adversely affect archaeological resources be analyzed (PRC Section 21083.2). For a project that may have an adverse effect on a significant archaeological resource, CEQA requires the preparation of an EIR (PRC Section 21083.2 and CEQA Guidelines Section 15065). CEQA recognizes two different categories of significant archaeological resources: "unique" archaeological resources (PRC Section 21083.2) and archaeological resources that qualify as "historical resources" (PRC Section 21084.1 and CEQA

Guidelines Section 15064.5). As defined in PRC Section 21083.2, a unique archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets 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.

An EIR does not analyze the issue of non-unique archaeological resources (PRC Section 21083.2[a]).

Native American Heritage Commission

The Native American Heritage Commission (NAHC) was created by statute in 1976. It is a nine-member body appointed by the governor to identify and catalog cultural resources (places of special religious or social significance to Native Americans and known graves and cemeteries of Native Americans on private lands) in California. The NAHC is responsible for preserving and ensuring the accessibility of sacred sites and burials, ensuring the disposition of Native American human remains and burial items, maintaining an inventory of Native American sacred sites located on public lands, and reviewing current administrative and statutory protections related to these sacred sites. The NAHC is involved if Native American human remains are identified during a project's construction or operation.

California Public Resources Code Sections 5097.98 and 5097.99

PRC Section 5097.98 (reiterated in CEQA Guidelines Section 15064.5[e]) identifies steps to follow in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery. PRC Section 5097.99 prohibits obtaining or possessing any Native American artifacts or human remains that are taken from a Native American grave or cairn (stone burial mound). This regulation applies if Native American human remains are identified during a project's construction or operation.

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 protects human remains by prohibiting the disinterment, disturbance, or removal of human remains from any location other than a dedicated cemetery. This regulation applies if human remains are identified during a project's construction or operation.

3.5.2.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not

apply to the Project or its alternatives. 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 Project and alternatives are described below.

Santa Clara County General Plan

The Santa Clara County General Plan outlines its mission to preserve the region's heritage, including historic sites, structures, and areas, archaeological and paleontological sites, and artifacts, through its policy and implementation framework. The applicable goal, policies, and implementation guidance are listed below (Santa Clara County 1994).

Goal ER-10: Preserve and conserve significant archaeological structures, sites, districts, and artifacts in order to promote a greater sense of historical awareness and community identity.

***Implementation C-RC(i)24*:** Update inventories and evaluations of heritage resources. Survey resources as necessary to augment existing inventories.

***Policy C-RC 49*:** Cultural heritage resources within Santa Clara County should be preserved, restored wherever possible, and commemorated as appropriate for their scientific, cultural, historical, and place values.

***Policy C-RC 50*:** Countywide, the general approach to heritage resource protection should include the following strategies: 1. Inventory and evaluate heritage resources. 2. Prevent or minimize adverse impacts on heritage resources. 3. Restore, enhance, and commemorate resources as appropriate.

***Policy C-RC 52*:** Prevention of unnecessary losses to heritage resources should be ensured as much as possible through adequate ordinances, regulations, and standard review procedures. Mitigation efforts, such as relocation of the resource, should be employed where feasible when projects will have significant adverse impact upon heritage resources.

***Policy R-RC 81*:** Heritage resources within the rural unincorporated areas of Santa Clara County shall be preserved, restored wherever possible, and commemorated as appropriate for their scientific, cultural, historical, and place values.

***Policy R-RC 83*:** The County's Heritage Resources database shall be maintained and used to review private development projects and guide the design of public projects.

***Policy R-RC 85*:** No heritage resource shall knowingly be allowed to be destroyed or lost through a discretionary action (zoning, subdivision site approval, grading permit, building permit, etc.) of the County of Santa Clara unless: a. the site or resource has been reviewed by experts and the County Historic Heritage Commission and has been found to be of insignificant value; or Resource Conservation Rural Unincorporated Area Issues and Policies O-48; b. there is an overriding public benefit from the project and compensating mitigation to offset the loss is made part of the project.

***Policy R-RC 86*:** Projects in areas found to have heritage resources shall be conditioned and designed to avoid loss or degradation of the resources. Where conflict with the resource is unavoidable, mitigation measures that offset the impact may be imposed.

***Policy R-RC 88*:** For projects receiving the environmental assessment, expert opinions, and field reconnaissance may be required if needed at the applicant's expense to determine the presence, extent, and condition of suspected heritage resources and the likely impact of the project upon the resources.

***Policy R-RC 91*:** The application of historic district zoning to areas containing historic structures shall be encouraged.

***Policy R-RC 92*:** The participation of concerned citizens and professionals dealing with heritage resources in the identification of sites and the review and conditioning of projects by its boards and commissions shall be encouraged by the county.

***Policy CD-1.26*:** Apply the Historic Preservation Goals and Policies of this Plan to proposals that modify historic resources or include development near historic resources.

Santa Clara County Historical Preservation Ordinance

The Santa Clara County Board of Supervisors adopted the Historic Preservation Ordinance, enacting Division C17 of the Santa Clara County Ordinance Code (Santa Clara County 2006). Basic components of the ordinance include purpose and intent, definitions, heritage resource inventory, landmark designation criteria and process, and landmark alteration requirements and demolition procedures, as well as information on appeals, hardship determination, maintenance, and enforcement. The Board of Supervisors updated the Historic Preservation Ordinance on December 1, 2009, to clarify the owner consent process for landmark designation.

City of San José Envision 2040 General Plan

Cultural resources are addressed in the City of San José General Plan (City of San José 2024). The General Plan identifies the following goals, policies, and implementation measures pertaining to cultural resources.

Goal ER-10: Preserve and conserve significant archaeological structures, sites, districts, and artifacts in order to promote a greater sense of historical awareness and community identity.

***Policy ER-10.1*:** For proposed development sites that have been identified as archaeologically or paleontologically sensitive, require investigation during the planning process to determine whether potentially significant archaeological or paleontological information may be affected by the be incorporated into the project design.

***Policy ER-10.2*:** Recognizing that Native American human remains may be encountered at unexpected locations, impose a requirement on all development permits and tentative subdivision maps that upon their discovery during construction, development activity will cease until professional archaeological examination confirms whether the burial is human. If the remains are determined to be Native American, applicable state laws shall be enforced.

***Policy ER-10.3*:** Ensure that City, State, and Federal historic preservation laws, regulations, and codes are enforced, including laws related to archaeological and paleontological resources, to ensure the adequate protection of historic and pre-historic resources.

Goal LU-13: Preserve and enhance historic landmarks and districts in order to promote a greater sense of historic awareness and community identity and contribute toward a sense of place.

***Policy LU-13.12*:** Develop and encourage public/public and public/private partnerships as a means to support, expand, and promote historic preservation.

***Policy LU-13.15*:** Implement City, State, and Federal historic preservation laws, regulations, and codes to ensure the adequate protection of historic resources.

***Policy LU-13.16*:** Alert property owners, land developers, and the building industry to historic preservation goals and policies and their implications early in the development process.

Goal IP-10: Use the Site Development permit process to implement the Envision General Plan goals and policies.

Policy IP-10.3: In addition to a Site Development permit, require an Historic Preservation permit for modifications to a designated Historic Landmark structure. This permit process fosters the implementation of Historic Preservation goals and policies of the General Plan.

City of San José Historic Preservation Ordinance

The Council of the City of San José adopted the Historic Preservation Ordinance as Section 13.48 of the City's Municipal Code. The ordinance was adopted to promote a harmonious outward appearance of structures in the historic styles and a general harmony as to style, form, color, proportion, texture, and material between buildings of historic design and those of more modern design; and to advance this purpose by preserving and protecting the old historic or architecturally worthy structures and neighborhoods that impart a distinct aspect to San José and serve as visible reminders of the city's historical and cultural heritage (City of San José 2021).

3.5.3 Cultural Resources Identification Methods

The following discussion regarding identifying known cultural resources within the Project area is based in part on the PanGIS (2024) cultural resources technical report.

3.5.3.1 Records Search

On May 16, 2023, PanGIS conducted a records search of the California Historical Resources Information System at the Northwest Information Center at Sonoma State University in Rohnert Park. The records search included a review of all recorded cultural resources, previous studies, and additional information on cultural resources located within a 1-mile radius of the Project area, as well as the National Register, California Register, California Historic Landmarks, California Inventory of Historic Resources, California Points of Historical Interest, California Office of Historic Preservation Built Environment Resource Directory, and California Department of Transportation Historic Bridge Inventory.

3.5.3.2 Pedestrian Surface Survey

Between September 2023 and March 2024, PanGIS conducted 5- to 10-meter-wide pedestrian surveys covering 274.19 acres. The survey area included the proposed Skyline HVDC Terminal site and the proposed Grove to Skyline 320 kV Transmission Line, which would be underground, including Bassett Street, North Market Street, Terraine Street, the portion of San Fernando Street between South Almaden Avenue and South Market Street, South Market Street, South 1st Street, Monterey Road, the area between the existing PG&E Metcalf Substation and Monterey Road, the southeastern quarter of the proposed Metcalf expansion area in the PG&E yard, the area around the

proposed waterline from the existing PG*E Metcalf Substation northeast across U.S. Highway 101 along Metcalf Road, and the proposed Grove HVDC Terminal site that is southeast of the existing PG&E Metcalf Substation.

Because of the Project area's urban, suburban, and rural built environments, ground visibility ranged from 0 to 100 percent. In areas where access was not granted, visual surveys from the public right-of-way were completed. No previously unrecorded archaeological resources were identified during the surface survey. During the surveys, the locations of 17 previously recorded cultural resources were visited. Six previously recorded cultural resources required California Department of Parks and Recreation updates to account for additional surface artifacts and boundary expansion, as well as updates for five historic-era buildings, P-43-001307, P-43-001330, P-43-001331, P-43-001334, and P-43-004139, which had been demolished since their original recordation (PanGIS 2024).

3.5.3.3 Map and Aerial Imagery Research

Historical topographic maps and aerial photos from the late 19th to the mid-20th centuries document the development of Santa Clara County. Cities and rural agricultural towns connected by the Southern Pacific Railroad and later U.S. Highway 101 were developed within the Santa Clara Valley. From the 1880s to the 1970s, the Newhall Street and College Park Southern Pacific Railroad yards operated within the proposed Skyline HVDC Terminal site (Southern Pacific Co. 1880, 1932). The south-to-north–running Monterey Railroad route was once present within a portion of the Project area (PanGIS 2024; USGS 1889, 1899, 1917, 1939, 1953, 1955; FrameFinder 1939, 1940a, 1940b).

3.5.4 Cultural Resources Identified within the Project Area

As a result of the records search and pedestrian survey, nine cultural resources were identified in the Project area: four pre-contact resources and five historic-era resources.

Three of these resources are not historical resources, are not unique archaeological resources, and have no potential to be affected by the Project. P-43-00116, the San Jose B Station, was previously recommended as not eligible for the California Register and this evaluation is concurred with by the CPUC (PanGIS 2024). P-43-002628, the historic alignment of the El Camino Real/Juan Bautista de Anza Historic Trail, was previously recommended as not eligible for the California Register but is listed locally. However, this resource is solely the historic alignment of a road. P-43-002629, Keelsling's Shade Trees, was also previously determined not eligible for the California Register and is not considered a historical resource.

Two cultural resources in the Project area have been recommended or determined eligible for listing in the California Register and qualify as historical resources under CEQA. P-43-000141 and P-43-000189 are pre-contact archaeological resources with human remains that extend into the Project area and have previously been determined eligible for the National Register and are listed in the California Register.

Four resources have not been evaluated for the California Register: P-43-000369 (the historic-era remains of an adobe with associated refuse), P-43-000449 (a disturbed scatter of shell possibly related to indigenous occupation), P-43-000571 (an indigenous habitation site with human remains), and P-43-001056 (a historic-era refuse scatter). For the purposes of this Project, these resources are treated as eligible for the California Register.

Therefore, there are six historical resources in the Project area. **Table 3.5-1,** *Cultural Resources Identified in the Project Area,* provides additional details. Historical resources are designated in **boldface**.

TABLE 3.5-1
CULTURAL RESOURCES IDENTIFIED IN THE PROJECT AREA

Resource	Age	Description	Project Component	California Register Eligibility
P-43-000141	**Pre-contact**	**Habitation site with human remains**	**LSPGC**	**Determined eligible for the National Register and listed in the California Register**
P-43-000189	**Pre-contact**	**Habitation site with human remains**	**PG&E**	**Determined eligible for the National Register and listed in the California Register**
P-43-000369	**Historic-era**	**Archaeological remains of an adobe building and refuse deposits**	**LSPGC**	**Not previously evaluated; assumed eligible**
P-43-000449	**Pre-contact**	**Disturbed scatter of shell**	**LSPGC**	**Not previously evaluated; assumed eligible**
P-43-000571	**Pre-contact**	**Habitation site with human remains**	**PG&E**	**Not previously evaluated; assumed eligible**
P-43-001056	**Historic era**	**Refuse scatter**	**LSPGC**	**Not previously evaluated; assumed eligible**
P-43-001116	Historic era	San Jose B Station	LSPGC	Recommended not eligible
P-43-002628	Historic era	El Camino Real/Juan Bautista de Anza Historic Trail alignment No physical component	LSPGC	Locally listed; recommended not eligible for the National Register and California Register
P-43-002629	Historic era	Keesling's Shade Trees	LSPGC	Determined not eligible

NOTES:

California Register = California Register of Historical Resources; LSPGC = LS Power Grid California; National Register = National Register of Historic Places; PG&E = Pacific Gas and Electric Company.

Boldface indicates historical resources.

SOURCE: Data compiled by Environmental Science Associates in 2025

3.5.5 Archaeological Sensitivity Assessment

The Project area is located on Pleistocene to Holocene-age soils and within and adjacent to historic waterways. The positive results of the NAHC Sacred Lands File search and the presence in and adjacent to the Project area of known pre-contact cultural resources, including human remains, confirm the extensive habitation and use of the Project area and vicinity. Additional information regarding the nature and locations of these resources is detailed in the confidential *Cultural Resource Technical Report for the Power Santa Clara Valley Project, Santa Clara*

County, California, prepared by PanGIS Inc. (2024). In general terms, there are several previously documented pre-contact cultural resources within the vicinity of the Project area, a number of which are considered highly sensitive.

Extensive ground disturbance has occurred within a large portion of the Project area as cities and rural towns have developed and underground utility infrastructure has been constructed and expanded within roadways in the Project area. Despite this development, there is a high potential to encounter intact pre-contact archaeological resources in the Project area based on the documented quantity and proximity of such resources.

Known historic-era archaeological resources in conjunction with historical maps and aerial photographs show the presence of the Southern Pacific Railroad yards and lines and various types of historic-era buildings and structures within portions of the Project area (USGS 1889, 1899, 1917, 1939, 1953, 1955; FrameFinder 1939, 1940a, 1940b). However, based on a review of historic maps and aerials, and because the majority of the Project components would be installed in existing roadways, there is a relatively low potential to encounter buried historic-era archaeological resources, such as foundations, artifact-filled wells, or privies.

3.5.6 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility would be responsible for implementing its measures only for that part of the Project that it would own or for which it would be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the PG&E San Jose B Substation to a splice vault located at the PG&E Metcalf Substation. Specifically, at the northern end of the Project area, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the PG&E San Jose B Substation. At the southern end of the Project area, LSPGC's scope would stop at a splice vault located at the western property line of the PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the portion of the Project involving modifications within the existing PG&E San Jose B and Metcalf substations. At the PG&E San Jose B Substation, PG&E would be responsible for the work starting from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E would be responsible for the work starting from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.5.6.1 Applicant-Proposed Measures

LSPGC has developed Applicant-proposed measures (APMs) that are incorporated into LSPGC's components of the Project to reduce potential effects on cultural resources. The following impact analysis assumes that LSPGC would implement the following APMs as part of its portion of work for the Project.

- **APM CUL-1: Worker Environmental Awareness Program (WEAP) Training.** LSPGC shall obtain a qualified archaeologist to design the cultural resources component of a WEAP that shall be provided to all Proposed Project personnel who may encounter and/or alter historical resources or unique archaeological properties, including construction supervisors and field personnel. The WEAP shall be submitted to the CPUC prior to construction. No construction worker shall be involved in ground-disturbing activities without having participated in the WEAP. The WEAP shall include, at a minimum:
  - Training on how to identify potential cultural resources and human remains during the construction process;
  - A review of applicable local, state, and federal ordinances, laws, and regulations pertaining to historic preservation;
  - A discussion of procedures to be followed in the event that unanticipated cultural resources are discovered during implementation of the Proposed Project;
  - A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and LSPGC policies; and
  - A statement by the construction company or applicable employer agreeing to abide by the WEAP, LSPGC policies, and other applicable laws and regulations.

  The WEAP may be conducted in concert with other environmental or safety awareness and education programs for the Proposed Project, provided that the program elements pertaining to cultural resources are designed by a qualified archaeologist, which is defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology (36 CFR Part 61).

- **APM CUL-2: Archaeological and Native American Monitoring.** Archaeological and Native American monitoring shall be conducted during ground disturbance associated with the Proposed Project when within 100 feet (30 meters) of previously recorded prehistoric, ethnohistoric resources or after unanticipated discovery of same. Archaeological monitoring shall be conducted during ground disturbance associated with the Proposed Project when within 100 feet (30 meters) of previously recorded historic- period resources, or after unanticipated discovery of the same. Prehistoric and/or ethnohistoric archaeological sites have been recorded within the Proposed Project area, and the Sacred Lands File (SLF) search and Tribal outreach indicates that lands sacred to the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, the Ohlone Indian Tribe, the Tamien Nation, and the Amah Mutsun Tribal Band are present within the Proposed Project search area. In addition, historic-era archaeological sites have been recorded within the Proposed Project area. A qualified archaeologist shall be retained by LSPGC to monitor excavation in each work area for the Proposed Project in accordance with the above monitoring criteria to ensure that there is no impact to any significant unanticipated historical resource. A qualified archaeologist and a Native American monitor determined during Tribal consultation shall be retained by LSPGC to monitor excavation in each work area for the Proposed Project in accordance with the

above monitoring criteria to ensure that there is no impact to any significant unanticipated cultural resource. Procedures to be followed in the event that a Native American monitor is not available shall be determined during Tribal consultation. Native American monitoring requirements established in this APM may be superseded by government-to-government consultation conducted between the CPUC and Tribal organizations as part of the AB 52 process or otherwise.

- **APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources.** In the event that previously unidentified cultural resources are uncovered during implementation of the Proposed Project, all work within 100 feet (30 meters) of the discovery shall be halted and redirected to another location. The LSPGC qualified archaeologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts shall occur, the resource shall be documented on State of California Department of Parks and Recreation cultural resource records, and no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, the LSPGC qualified archaeologist shall evaluate the significance and California Register of Historic Resources (California Register) eligibility of the resources and, in consultation with the CPUC, determine appropriate treatment measures. Preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with CEQA Section 15126.4(b)(3), if it is demonstrated that resources cannot feasibly be avoided, the LSPGC qualified archaeologist, in consultation with the CPUC and, if the unearthed resource is prehistoric or Native American in nature, the Native American monitor shall develop additional treatment measures, such as data recovery consistent with CEQA Guidelines 15126.4(b)(3)(C)-(D). Archaeological materials recovered during any investigation shall be curated at an accredited curation facility or transferred to the appropriate Tribal organization.

- **APM CUL-4: Cultural Resources Inventory.** The temporary construction staging areas shall be surveyed prior to construction. If additional proposed facilities and ground-disturbing activities move outside the previously surveyed acreage, the new areas shall be subjected to a cultural resources inventory to ensure that any newly identified cultural resources are either avoided by project redesign or evaluated and treated.

- **APM CUL-5: Unanticipated Discovery of Human Remains**. Avoidance and protection of inadvertent discoveries that contain human remains shall be the preferred protection strategy where feasible and otherwise managed pursuant to the standards of CEQA Guidelines 15064.5(d) and (e). If human remains are discovered during construction or O&M activities, all work shall be diverted from the area of the discovery, and the CPUC shall be informed immediately. The LSPGC qualified archaeologist shall contact the County of Santa Clara Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner shall contact the Native American Heritage Commission (NAHC). The NAHC shall then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn shall make recommendations for the appropriate means of treating the human remains and any associated funerary objects. No part of the Proposed Project is located on federal land and no federal monies are involved; therefore, the Proposed Project is not subject to the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA).

3.5.6.2 PG&E Best Management Practices and Field Protocols

PG&E has developed best management practices (BMPs) and field protocols (FPs) that are incorporated into PG&E components of the Project. The analysis assumes that the following BMPs would be implemented by PG&E for its portion of the work for the Project.

- **PG&E BMP CULT-1: Worker Awareness Training.** PG&E will provide environmental awareness training on archeological cultural and paleontological resources protection. This training may be administered by the PG&E cultural resources specialist (CRS) or a designee as a stand-alone training or included as part of the overall environmental awareness training as required by the project and will at minimum include: types of cultural resources or fossils that could occur at the project site; types of soils or lithologies in which the cultural resources or fossils could be preserved; procedures that should be followed in the event of a cultural resource, human remain, or fossil discovery; and penalties for disturbing cultural or paleontological resources.

- **PG&E BMP CULT-2: Archaeological and Native American Monitoring.** Archaeological and Native American monitoring shall occur for all project-related ground disturbance affiliated with work at or adjacent to San Jose B Substation and Metcalf Substation. PG&E will retain a qualified archaeologist and Native American monitor for all ground disturbing activities completed by PG&E. The archaeological and Native American monitor will closely inspect all exposed surfaces and sediments for cultural resources in result of construction activities and have stop work authority if a cultural resource is identified. Furthermore, the CRM and Native American monitor/representative will work with construction crews in systematically redirecting ground disturbing activities until the CRS and Native American monitor/representative can investigate the cultural resource discovery.

- **PG&E BMP CULT-3: Inadvertent Discovery.** If any new cultural resources are encountered during Proposed Project activities, all work must be suspended in the vicinity (approximately 100 feet) of the resource, and the Cultural Resource Specialist (CRS) shall be immediately notified. At that time, the CRS shall coordinate any necessary investigations of the site with appropriate specialists, as needed. PG&E may be required to implement protective measures deemed necessary for the protection of the cultural resources.

  Prehistoric resources that may be identified during Proposed Project implementation may include, but are not limited to, stone tools and manufacturing debris made of obsidian, basalt, and other lithic materials; milling equipment such as bedrock mortars, portable mortars, and pestles; and locally darkened soils (midden) that may contain dietary remains such as shell and bone, as well as human remains. Historic resources that may be identified include, but are not limited to, small cemeteries or burial plots, structural foundations, cabin pads, cans with soldered seams or tops, bottles or fragments of clear and colored glass, cut (square) nails, and ceramics.

- **PG&E BMP CULT-4: Flag and Avoid Known Resources.** Sites will be marked with flagging tape, safety fencing, and/or sign designating it as an "environmentally sensitive area" to ensure that PG&E construction crews and heavy equipment will not intrude on these sites during construction. At the discretion of the PG&E CRS, monitoring may be done in lieu of or in addition to flagging. If it is determined that the project cannot avoid impacts on one or more of the sites, then, for those sites that have not been previously evaluated, evaluation for inclusion in the National Register of Historic Places (National Register)/California Register of Historic Resources (California Register) will be conducted. Should the site be found eligible, appropriate measures to reduce the impact to a less-than-significant level will be

implemented, including, but not limited to, data recovery, photographic and archival documentation, or other measures as deemed appropriate. If it is determined that sites that have been previously determined to be eligible for inclusion in either the National Register or California Register cannot be avoided, measures will be implemented to reduce the impact to a less-than-significant level, including, but not limited to, data recovery, photographic and archival documentation, or other measures as deemed appropriate.

- **PG&E BMP CULT-5: Human Remains.** In keeping with the provisions provided in 7050.5 of the California Health and Safety Code (CHSC) and Public Resource Code 5097.98, if human remains are encountered (or are suspected) during any Proposed Project-related activity, PG&E shall:
  - Stop all work within 100 feet;
  - Immediately contact the CRS, who shall then notify the County Coroner;
  - Secure location, but do not touch or remove remains and associated artifacts;
  - Do not remove associated spoils or pick through them;
  - Record the location and keep notes of all calls and events; and
  - Treat the find as confidential and do not publicly disclose the location.

  If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of such identification. The most likely descendant shall work with the CRS to develop a program for re-interment or other disposition of the human remains and any associated artifacts. No additional work shall take place within the immediate vicinity of the find until the appropriate actions have been implemented.

3.5.7 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in significant impact on cultural resources if it would do any of the following:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

c) Disturb any human remains, including those interred outside of dedicated cemeteries.

3.5.8 Direct and Indirect Effects

3.5.8.1 Approach to Analysis

Impacts on architectural resources are typically assessed by identifying any activities that could affect resources identified as historical resources for the purposes of CEQA. Buildings and structures identified as historical resources include those that are significant because of their association with important events, people, or architectural styles or master architects, or for their informational value (California Register Criteria 1, 2, 3, and 4) and that retain sufficient historical integrity to convey their significance.

The significance of most archaeological sites and whether they are considered historical resources is usually assessed under California Register Criterion 4, for potential to yield important information about history or prehistory, although increasingly the other criteria have been used for evaluation, especially Criteria 1 for important events and Criteria 2 for important people. Archaeological resources may also be assessed under CEQA as *unique archaeological resources*, which is defined as archaeological artifacts, objects, or sites that contain information needed to answer important scientific research questions.

Once a resource has been identified as a historical resource, it then must be determined whether the project's impacts would "cause a substantial adverse change in the significance" of the resource (CEQA Guidelines Section 15064.5[b]). A *substantial adverse change in the significance of a historical resource* means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historic resource would be materially impaired" (CEQA Guidelines Section 15064[b][1]). A historical resource is materially impaired through the demolition or alteration of the resource's physical characteristics that:

1) convey its historical significance and that justify its inclusion in, or eligibility for, the California Register;
2) account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, 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
3) convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA. (CEQA Guidelines Section 15064.5[b][2]).

Human remains, including those buried outside of dedicated cemeteries, are protected under several state laws, including PRC Section 5097.98 and Health and Safety Code Section 7050.5. These laws are identified in Section 3.5.2, *Regulatory Setting*.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.5.8.2 Impact Assessment

Criterion a) Whether the Project would cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.

The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. (*No Impact*)

CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources. The following discussion focuses on historic architectural and structural resources of the built environment. Archaeological resources, including those that are potential historical resources according to CEQA Guidelines Section 15064.5, are addressed below under Criterion b).

Project construction would not affect known architectural historical resources because there are no known architectural resources within the Project area that meet CEQA's definition of a historical resource (see Section 3.5.3, *Cultural Resources Identification Methods and Results*). Therefore, the Project's construction activities would have no impact on architectural historical resources.

Operation and maintenance of the Project would not affect known architectural historical resources because no ground disturbance would occur at depths beyond those reached during construction.

Criterion b) Whether the Project would cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

Impact 3.5-1: The Project would cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. (*Less than Significant with Mitigation*)

This impact discusses archaeological resources, both as historical resources according to CEQA Guidelines Section 15064.5 and as unique archaeological resources as defined in PRC Section 21083.2(g). A significant impact would occur if the Project would cause a substantial adverse change to an archaeological resource through physical demolition, destruction, relocation, or alteration.

LSPGC Components of the Project

Construction

Based on the records search, pedestrian survey results, and background research, four archaeological resources are in the LSPGC Project area: two pre-contact habitation sites with human remains (P-43-000141 and P-43-000189), one pre-contact shell scatter (P-43-000449), and one historic-era refuse deposit (P-43-001056) (PanGIS 2024). Based on the analysis presented above, all four of these resources are considered historical resources for the purposes of CEQA.

Construction of the LSPGC Project components would involve excavation to a maximum depth of 10 feet within and in the vicinity of P-43-000141, P-43-000189, P-43-000449, and P-43-001056. Impacts on these resources as a result of the Project would be potentially significant.

Because of access limitations, portions of the LSPGC Project area have not been surveyed for cultural resources, and the LSPGC Project area includes areas with a high potential to contain buried archaeological deposits. In addition, based on the archaeological sensitivity analysis, the potential exists for unrecorded subsurface archaeological resources to be uncovered during proposed ground-disturbing activities. Should any previously unrecorded archaeological resource

be identified during Project ground-disturbing activities and be found to qualify as a historical resource per CEQA Guidelines Section 15064.5, or as a unique archaeological resource as defined in PRC Section 21083.2(g), any impacts on the resource resulting from the Project would be potentially significant.

To reduce potential impacts on archaeological resources, LSPGC would provide cultural resources awareness training as per **APM CUL-1: WEAP Training**. In accordance with **APM CUL-4: Cultural Resources Inventory**, the temporary construction staging areas shall be surveyed prior to construction. If additional proposed facilities and ground-disturbing activities are proposed outside of the previously surveyed areas, the new areas shall be subjected to a cultural resources survey to ensure that any newly identified cultural resources are either avoided by the Project redesign or treated appropriately.

To reduce impacts on as-yet undocumented archaeological resources, LSPGC would implement **APM CUL-2: Archaeological and Native American Monitoring**, which requires archaeological and Native American monitoring for all Project-related ground disturbance within 100 feet of previously recorded resources.

In the event of the discovery of cultural materials during surveys and Project implementation, LSPGC would implement **APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources**, which requires evaluation and treatment of cultural resources and avoidance by Project redesign when feasible. This APM requires additional surveys, cultural resources awareness training, archaeological and Native American monitoring, and protocols to follow in the event of a discovery of cultural resources before and during Project implementation.

Although APMs CUL-1 through CUL-4 would minimize the potential impact of the Project on archaeological resources, these measures do not sufficiently address potential impacts on P-43-000141, P-43-000189, P-43-000449, and P-43-001056, and areas with a high potential to contain buried archaeological deposits. The impact to these resources would be significant.

Operation and Maintenance

Operation and maintenance of the LSPGC components of the Project would have no impact on known archaeological resources because no ground disturbance would occur at depths greater than those reached during construction.

LSPGC Impact Mitigation Summary

To reduce potential impacts on known archaeological resources to a less-than-significant level, implementation of **LSPGC Mitigation Measure 3.5-1: Cultural Resources Management Plan (CRMP)** requires that an archaeological data recovery program be developed and implemented that appropriately outlines data recovery of cultural materials for cultural constituents associated with significant cultural resources in the Project area. In addition, the CRMP would include a plan to support APM CUL-2 that defines the intensity and frequency of archaeological and tribal monitoring.

Mitigation: Implement LSPGC Mitigation Measure 3.5-1.

LSPGC Mitigation Measure 3.5-1: Cultural Resources Management Plan (CRMP)

- The CPUC, LSPGC, consulting Native American representative(s), and a Secretary of the Interior–qualified archaeologist shall determine whether preservation in place of significant cultural resources is feasible. Consistent with CEQA Guidelines Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If the parties determine that preservation in place is not feasible, data recovery through archaeological investigations shall be completed.

- LSPGC shall retain a Secretary of the Interior–qualified archaeologist, in consultation with consulting Native American representative(s), to prepare and implement a Cultural Resources Management Plan (CRMP). The CRMP shall include a treatment program to define the research themes and data requirements, define treatment locations, and determine whether cultural materials can address the questions associated with research themes. The Secretary of the Interior–qualified archaeologist, in consultation with consulting Native American representative(s), shall conduct a data recovery program as outlined in the CRMP. The CRMP will include how the data recovery program would preserve the significant information the resource is expected to contain. Treatment would consist of (but would not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim of targeting the recovery of important data contained in the portion of the significant resource to be affected by the Project. The CRMP shall include provisions for analysis of data in a regional context; reporting of results within a timely manner and subject to review and comments by the consulting Native American representative(s); disposition of resources acceptable to the consulting Native American representative(s) and in accordance with all applicable laws; and dissemination of final confidential reports to the Northwest Information Center of the California Historical Resources Information System.

- The LSPGC CRMP will also include a monitoring plan. The monitoring plan will include specifically where monitoring will be completed and under what circumstances based on soil types, geology, distance to known sites, and other factors; the person(s) responsible for conducting monitoring activities, including consulting Native American representative(s); how the monitoring shall be conducted and the required format and content of monitoring reports; schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports; protocol for notifications in case of encountering cultural resources, as well as methods of dealing with the encountered resources (e.g., collection, identification, curation); and the methods to ensure security of cultural resources sites. During the course of the monitoring, the archaeologist and consulting Native American representative(s) may adjust the frequency—from continuous to intermittent—of the monitoring based on the conditions and professional judgment regarding the potential to impact resources, with approval of the CPUC.

- The LSPGC CRMP will be submitted to CPUC for approval prior to implementation as well as all subsequent reports, plans, and resource documentation resulting from implementation of the CRMP.

PG&E Components of the Project

Construction

Based on the records search, pedestrian survey results, and background research, two pre-contact habitation sites with human remains include a portion of the PG&E Project area. P-43-000189 and P-43-000571 are considered historical resources for the purposes of CEQA.

Construction of the PG&E Project components would occur within and adjacent to the existing PG&E Metcalf Substation and would affect these archaeological resources. Impacts on P-43-000189 and P-43-000571 as a result of the Project would be potentially significant, as described in Section 3.5.4.

The PG&E components of the Project intersect archaeological historical resources that may be significantly affected by the Project. Based on the extent and sensitivity of resources identified in the vicinity of the existing PG&E Metcalf Substation component in the PG&E Project area, the proposed Metcalf Substation upgrades component has a high potential to contain unique archaeological resources (PanGIS 2024). In addition, based on the archaeological sensitivity analysis, the potential exists for unrecorded subsurface archaeological resources to be uncovered during proposed ground-disturbing activities. Should any previously unrecorded archaeological resource be identified during Project ground-disturbing activities and be found to qualify as a historical resource per CEQA Guidelines Section 15064.5, or as a unique archaeological resource as defined in PRC Section 21083.2(g), any impacts on the resource resulting from the Project would be potentially significant because such impacts would be the physical destruction of the resource or its immediate surroundings such that the significance of would be materially impaired.

To reduce potential impacts on archaeological resources, PG&E would be required to provide cultural resources awareness training as per **PG&E BMP CULT-1: Worker Awareness Training**.

To reduce impacts on as-yet undocumented archaeological resources, PG&E would be required to adhere to **PG&E BMP CULT-2: Inadvertent Discovery**, which requires archaeological and Native American monitoring for all Project-related ground disturbance within and adjacent to the existing PG&E San Jose B Substation and existing PG&E Metcalf Substation.

In the event of the discovery of cultural materials during surveys and Project implementation, PG&E would adhere to **PG&E BMP CULT-3: Human Remains** and **PG&E BMP CULT-4: Flag and Avoid Known Resources**, which require evaluation and treatment of cultural resources and avoidance by Project redesign when feasible. These BMPs require additional surveys, cultural resources awareness training, archaeological and Native American monitoring, and protocols to follow in the event of a discovery of cultural resources before and during Project implementation.

PG&E BMPs CULT-1 through CULT-4 would minimize the potential impact of the Project on archaeological resources, but these measures do not sufficiently address potential impacts on known resources in the vicinity of the existing PG&E Metcalf Substation and in areas with a high potential to contain buried archaeological deposits. The impact on these resources would be significant.

Operation and Maintenance

Operation and maintenance of the PG&E components of the Project would have no impact on known archaeological resources because no ground disturbance would occur at depths greater than those reached during construction.

PG&E Impact Mitigation Summary

To reduce potential impacts on known archaeological resources to a less than significant level, implementation of **PG&E Mitigation Measure 3.5-1: Cultural Resources Treatment Plan (CRTP)** requires that a treatment plan be prepared and approved by CPUC, outlining the procedures to follow in the event that cultural constituents of known historical archaeological resources are identified during PG&E Project construction. In addition, the CRTP would include a plan to support PG&E BMP CULT-2 that defines the intensity and frequency of archaeological and tribal monitoring.

Mitigation: Implement PG&E Mitigation Measure 3.5-1.

PG&E Mitigation Measure 3.5-1: Cultural Resources Treatment Plan (CRTP)

- CPUC, PG&E, consulting Native American representative(s), and a Secretary of the Interior–qualified archaeologist shall determine whether preservation in place of significant cultural resources is feasible. Consistent with CEQA Guidelines Section 15126.4(b)(3), this may be accomplished by planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If it is determined that preservation in place is not feasible, data recovery through archaeological investigations shall be completed.

- PG&E shall retain a Secretary of the Interior–qualified archaeologist, in consultation with consulting Native American representative(s), to prepare and implement a Cultural Resources Treatment Plan (CRTP). The CRTP shall include a plan to treat all cultural materials identified during construction that are contributing constituents of historical resources. The purpose of the treatment program will be to identify the procedures to follow in the event that cultural materials associated with historical archaeological resources are identified, define the tribal engagement procedures, and identify a place for cultural resources to be safely stored, if needed, until they can be reburied or treated in accordance with the tribe(s) recommendations, if the materials are Native American, in accordance with all applicable laws. Treatment could consist of (but would not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim of targeting the recovery of important data contained in the portion of the significant resource to be affected by the Project. The methods of treatment would be determined in consultation with the consulting Native American representative(s). The CRTP shall include provisions for analysis of data in a regional context; reporting of results in a timely manner and subject to review and comments by the consulting Native American representative(s); disposition of resources acceptable to the consulting Native American representative(s); and dissemination of final confidential reports to the Northwest Information Center of the California Historical Resources Information System.

- The CRTP will also include a monitoring plan. The monitoring plan will specifically identify:
  - the location(s) where monitoring will be completed based on soil types, geology, distance to known sites, and other factors;
  - the person(s) responsible for conducting monitoring activities, including consulting Native American representative(s);
  - the method for conducting the monitoring and the required format and content of monitoring reports;
  - the schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports;
  - the protocol for notifications in case of encountering cultural resources, as well as methods of managing the encountered resources (e.g., collection, identification, curation, repatriation);
  - and the methods to ensure security of cultural resources sites.

  During the course of the monitoring, the archaeologist and consulting Native American representative(s) may adjust the frequency of the monitoring from continuous to intermittent based on the conditions and professional judgment of the archaeologist and Native American representative(s) regarding the potential to affect cultural resources.
- The PG&E CRTP will be submitted to CPUC for approval before implementation. Similarly, all subsequent reports, plans, and resource documentation resulting from implementation of the CRTP will be submitted to CPUC for approval.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1 would minimize impacts on known historical resources and impacts that could occur in the event of discovery of any newly identified archaeological resources during Project construction through monitoring and inadvertent discovery procedures.

However, there are known significant archaeological resources that would be affected by the Project and such impacts cannot be mitigated to a less-than-significant level. Therefore, impacts on archaeological resources would be **significant and unavoidable**.

Criterion c) Whether the Project would disturb any human remains, including those interred outside of formal cemeteries.

Impact 3.5-2: The Project may disturb any human remains, including those interred outside of dedicated cemeteries. (*Less than Significant with Mitigation*)

The records search and background research determined that Native American human remains are known to exist in the vicinity of the Project area and there is a high potential for additional human remains to be located near previously documented resources. In the event of a discovery of human remains, including those interred outside of formal cemeteries, human remains could be inadvertently disturbed or damaged, which would be a significant impact.

Construction

Should Project construction-related ground-disturbing activities identify undiscovered human remains, LSPGC and PG&E would comply with California Public Resources Code Section 5097.98. This law requires that ground-disturbing activities halt until (1) the county coroner can determine whether the human remains are subject to Section 27491 of the Government Code or any other related legal provisions governing the investigation of the circumstances, manner, and cause of death; and (2) the required recommendations concerning the treatment and disposition of the human remains have been made. Pursuant to California Health and Safety Code Section 7050.5, the coroner must make a determination within 48 hours of notification of the discovery of the human remains. If the coroner determines that the remains are not subject to their authority and recognizes or has reason to believe that they are those of a Native American, the coroner must contact the Native American Heritage Commission within 24 hours.

Although LSPGC APMs CUL-1 through CUL-5 and PG&E BMPs CULT-1 through CULT-5 would minimize the potential impact of the Project on human remains, including those interred outside of formal cemeteries, these measures do not sufficiently address potential impacts because more specific actions are required to ensure that human remains are treated with respect and dignity in coordination with Native American tribes. The impact on these resources would be potentially significant.

As discussed under Impact 3.5-2, LSPGC would implement LSPGC Mitigation Measure 3.5-1 and PG&E would implement PG&E Mitigation Measure 3.5-1, which would reduce the potential impact related to the discovery of human remains to a **less-than-significant** level.

Operation and Maintenance

Operation and maintenance of the Project would not affect human remains because no ground disturbance would occur at depths greater than those reached during construction.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1.
>
> **Significance after Mitigation:** Implementation of LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1 would ensure that impacts associated with the accidental discovery of human remains, if identified during Project construction, would be **less than significant** with mitigation incorporated.

3.5.9 Cumulative Effects Analysis

3.5.9.1 Criterion a)

The Project would not cause a cumulatively substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. (*No Impact*)

The geographic scope for cumulative impacts on historic architectural resources includes projects in the Santa Clara Valley that would involve the demolition, destruction, relocation, or alteration of historic buildings or structures. Because the Project would not affect any historic architectural resources, there would be no cumulative impacts on historical resources.

3.5.9.2 Criteria b) and c)

Impact C.3.5-1: The Project would cause a cumulatively substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. (*Significant and Unavoidable*)

The geographic scope for cumulative effects on archaeological resources includes projects in the Santa Clara Valley that would also involve excavation or similar ground disturbance in locations with previously recorded or as-yet unknown but likely-to-occur archaeological resources. Cumulative projects could have a significant impact on both recorded and unrecorded archaeological resources given the amount of construction-related ground disturbance that could occur. The potential impacts of the Project, when considered together with similar impacts from other probable future projects in the vicinity, could result in a significant cumulative impact on archaeological resources. The Project's contribution to this impact could be cumulatively considerable, as documented above.

Compliance with existing regulations and implementation of LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1, LSPGC APMs CUL-1 through CUL-4, and PG&E BMPs CULT-1 through CULT-5 would reduce the potential impact related to the discovery of archaeological resources, but the level of impact would still be **significant and unavoidable**.

Cumulative projects undergoing CEQA review would implement similar training, monitoring, and inadvertent discovery of measures. However, because the Project's impact would be significant and unavoidable, even with the implementation of LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1, and the LSPGC APMs and PG&E BMPs, the Project's contribution to cumulative impacts on archaeological resources would still be considerable, and the impact would be **significant and unavoidable**.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1.
>
> **Significance after Mitigation**: With implementation of the LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1, the Project, in combination with the cumulative projects, would have a significant and unavoidable cumulative impact related to this criterion.

3.5.9.3 Criterion c)

Impact C.3.5-2: The Project would cumulatively disturb any human remains, including those interred outside of dedicated cemeteries. (*Less than Significant with Mitigation*)

The geographic scope for cumulative effects on human remains includes projects in the Santa Clara Valley that would also involve excavation or similar ground disturbance in locations with previously recorded or as-yet unknown but likely-to-occur human remains. Similar to the Project as described under Impact C.3.5-1, cumulative projects could have a significant impact on both recorded and unrecorded locations of human remains given the amount of construction-related ground disturbance that could occur. The potential impacts of the Project, when considered together with similar impacts from other probable future projects in the vicinity, could result in a

significant cumulative impact on human remains. The Project's contribution to this impact could be cumulatively considerable, as documented above.

Compliance with existing regulations, and implementation of LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1, would reduce the potential impact related to the discovery of human remains to a less-than-significant level. Additionally, cumulative projects undergoing CEQA review would implement similar training, monitoring, and inadvertent discovery of measures. Therefore, with implementation of LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-2, the Project's contribution to cumulative impacts to human remains would not be considerable, and the impact would be **less than significant** with mitigation.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.5-1 and LSPGC Mitigation Measure 3.5-1.
>
> **Significance after Mitigation**: With implementation of LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1, the Project, in combination with the cumulative projects, would be reduce to a less-than-significant cumulative impact related to this criterion.

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3.6 Energy

This section evaluates the impacts of the Project related to energy. It includes information about the physical and regulatory setting, and it identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. The information and analysis presented are based in part on estimates of fuel use consumption calculated for the Project on behalf of LSPGC, as presented in **Appendix B**, *Air Quality, Greenhouse Gas, and Energy Calculations and Modeling*. The calculations were reviewed by the CPUC's consultant, Environmental Science Associates, and were found to be adequate for use in this analysis.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to energy.

3.6.1 Environmental Setting

3.6.1.1 Electricity

California

The generating capacity of a unit of electricity is expressed in megawatts (MW). Generation is typically measured in megawatt-hours (MWh), kilowatt-hours (kWh), or gigawatt-hours (GWh). In 2023, California generated a total of 281,140 GWh of electricity, a decrease of 2.1 percent (6,080 GWh) from 2022. Renewable and non-greenhouse gas (GHG) emitting electricity generation resources—nuclear and large hydroelectric—accounted for 58 percent of total electricity generation in California, compared to 54 percent in 2022. Net imports of electricity to California accounted for 65,518 GWh in 2023, a decrease of 22 percent (83,960 GWh) from 2022 (CEC 2025a).

3.6.1.2 Regional Setting

PG&E provides electricity services to approximately 16 million people throughout its 70,000-square-mile service area in Northern and Central California, which extends from Eureka in the north to Bakersfield in the south, and from the Pacific Ocean in the west to the Sierra Nevada in the east (PG&E 2025a). PG&E produces and purchases energy from a mix of conventional and renewable generating sources. The electricity it provides is generated by a diverse mix of sources, including renewable, hydroelectric, and nuclear. Electricity flows from the power plant where it is generated onto the electric grid through a transmission substation. The 2023 electric power mix for PG&E-owned generation and power purchases was 32.8 percent renewable power, 53.4 percent nuclear power, and 13.8 percent large hydroelectric power (PG&E 2025b). **Table 3.6-1**, *Electric Power Mix Delivered to Retail Customers In 2023*, provides a detailed view of PG&E's power mix compared to the overall statewide power mix.

TABLE 3.6-1
ELECTRIC POWER MIX DELIVERED TO RETAIL CUSTOMERS IN 2023

Energy Resource	2023 PG&E Base Plan	2023 Statewide Power Mix (for comparison)[a]
Eligible Renewable	32.8%	36.9%
Biomass and Bio-waste	3.4%	2.1%
Geothermal	0.3%	4.8%
Small Hydroelectric	2.5%	1.8%
Solar	20.2%	17.0%
Wind	6.3%	11.2%
Coal	0.0%	1.8%
Large Hydroelectric	13.8%	11.7%
Natural Gas	0.0%	36.6%
Nuclear	53.4%	9.3%
Other	0.0%	0.1%
Unspecified Sources of Power[b]	0.0%	3.7%
Total	**100%**	**100%**

NOTES: PG&E = Pacific Gas and Electric Company

a. Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year. The eligible renewable percentage above does not reflect Renewables Portfolio Standard compliance, which is determined using a different methodology.

b. "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.

SOURCE: PG&E 2025b.

Local

The city of San José provides access to programs that provide energy service to customers throughout the city, referred to as the San José Clean Energy (SJCE) GreenSource and SJCE TotalGreen. SJCE procures electricity from a mix of renewable energy sources and contracts with PG&E to deliver electricity to customers. The service provided to most San José residents and businesses is GreenSource, which consists of 60 percent renewable energy, 35 percent non-renewable carbon-free energy, and 5 percent unspecified energy (City of San José 2023). SJCE TotalGreen provides 100 percent renewable energy service to those who choose this service. For those who opt out of SJCE services, electricity is provided by PG&E.

Unincorporated Santa Clara County receives energy from Silicon Valley Clean Energy (SVCE), which is a public agency that provides energy to 270,000 customers in Santa Clara County. SVCE supplies energy from clean sources and contracts with PG&E to deliver electricity to 13 communities in Santa Clara County. Customers are automatically enrolled in the GreenStart program, which in 2023 supplied 36.7 percent of electricity from renewable sources, 38.1 percent from large hydroelectric, and 25.1 percent from nuclear sources. Alternatively, customers can choose to participate in the GreenPrime service, which supplies energy entirely from renewable sources at a premium rate per kilowatt hour. Customers that use this service received 50 percent of their electricity from solar power and 50 percent of their electricity from wind power (SVCE 2024).

The total amount of electricity consumed in 2022 from residential and nonresidential uses in Santa Clara County was 4,250 GWh and 12,852 GWh, respectively, for a total of 17,102 GWh (CEC 2025b).

3.6.1.3 Transportation Fuels

California

California uses a higher volume of gasoline than any other transportation fuel, by far, and nearly all gasoline used in California is obtained through the retail market. In 2023, approximately 13.6 billion gallons of gasoline were sold in California's retail market (CEC 2025c). Diesel fuel is the second most used transportation fuel by volume in California. Nearly 51 percent of all diesel sales are retail sales. In 2023, 2.9 billion gallons of diesel were sold in California (CEC 2025c). According to the U.S. Department of Energy's Energy Information Administration, nearly all semi-trucks, delivery vehicles, buses, trains, ships, boats and barges, and farm, construction, and military vehicles and equipment have diesel engines.

Local

Regular unleaded gasoline is used primarily to fuel passenger cars and small trucks. Diesel fuel is used primarily in large trucks and construction equipment. Both are used widely in the city of San José and unincorporated Santa Clara County. In 2023, estimated sales of gasoline in Santa Clara County was 563 million gallons (CEC 2024). That same year, estimated diesel sales in Santa Clara County was 45 million gallons (CEC 2024). Estimated gasoline sales in 2023 in the city of San José was 221 million gallons (CEC 2025c).[1]

3.6.2 Regulatory Setting

3.6.2.1 Federal

Energy Policy Act of 2005

The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy. The Renewable Fuel Standard program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States (USEPA 2025a).

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 was enacted to facilitate the increased use of renewable energy and increased energy efficiency. To promote an increase in the supply of alternative fuel sources, the Energy Independence and Security Act set mandatory Renewable Fuel Standards that required fuel producers to use at least 36 billion gallons of biofuel in 2022 (USEPA 2025b). The law also established miles per gallon (mpg) targets for cars and light trucks

[1] Estimated diesel sales for 2023 is not currently available for the city of San José.

and directed the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks (USEPA 2025b).

Additional provisions of the Energy Independence and Security Act address energy savings in government and public institutions and promote research for alternative energy, international energy programs, and the creation of "green jobs".[2]

Energy Act of 2020

The Energy Act of 2020 prioritizes research, development, and demonstration across a broad spectrum of energy technologies within the U.S. Department of Energy: solar and wind power, energy storage, grid modernization, energy efficiency, nuclear power, carbon capture utilization and storage, and more. The Energy Act of 2020 provides a focus on the technologies that will be critical to reducing GHG emissions in the power sector, industry, and buildings and to addressing climate change (USEPA 2024c).

U.S. Department of Transportation, U.S. Department of Energy, and U.S. Environmental Protection Agency

On the federal level, the U.S. Department of Transportation, U.S. Department of Energy, and U.S. Environmental Protection Agency (USEPA) have substantial influence over energy policies related to the consumption of transportation fuels. Generally, federal agencies influence transportation energy consumption by establishing and enforcing fuel economy standards for automobiles and light trucks, and by funding energy-related research and development, and transportation infrastructure projects.

Established by Congress in 1975, the Corporate Average Fuel Economy (CAFE) Standards (Code of Federal Regulations Title 49, Parts 531 and 533) help to reduce energy consumption by increasing the required fuel economy for cars and light trucks. NHTSA and USEPA jointly administer the CAFE standards. Congress has specified that CAFE standards must be set at the "maximum feasible level," with consideration given for four factors:

(1) Technological feasibility.

(2) Economic practicality.

(3) Effect of other standards on fuel economy.

(4) The need for the nation to conserve energy.

When these standards are raised, automakers respond by creating a more fuel-efficient fleet. In 2012, NHTSA established final CAFE standards for model years 2017–2021 passenger cars and light trucks. On average, the CAFE standards required a combined fleet-wide fuel economy of 40.3 to 41.0 mpg for model year 2021 (USDOT 2014).

[2] A *green job*, as defined by the U.S. Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.

Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and NHTSA. The standards for carbon dioxide emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. The Phase 1 heavy-duty truck standards, which applied to model years 2014–2018 combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles, resulted in reductions in fuel consumption of 6– to 23 percent compared to the 2010 baseline, depending on the vehicle type (USEPA 2011). USEPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021–2027 and require the phase-in of a 5–25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type (*Federal Register* [FR] Title 81, Pages 73478–74274 [81 FR 73478–74274], October 25, 2016). The Phase 2 standards are expected to lower carbon dioxide emissions by approximately 1.1 billion metric tons.

In March 2020, U.S. Department of Transportation and USEPA issued the final Safer Affordable Fuel-Efficient Vehicles Rule, which amended the existing CAFE standards for passenger cars and light trucks and established new standards covering model years 2021–2026. These standards set a combined fleet-wide average of 37 mpg for the model years affected (85 FR 24174–25278, April 30, 2020). On January 20, 2021, President Joe Biden issued Executive Order 13990, "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis," which directed USEPA to consider whether to propose suspending, revising, or rescinding the standards previously revised under the Safer Affordable Fuel-Efficient Vehicles Rule for model years 2021–2026.

In February 2022, USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards. This final rule revised current GHG standards for vehicles with model years 2023–2026; it also established the most stringent GHG standards ever set for the light-duty vehicle sector, which are expected to result in average fuel economy of 40 mpg, while the standards they replace (the Safer Affordable Fuel-Efficient Vehicles Rule standards) would achieve only 32 mpg for model year 2026 vehicles (86 FR 74434–74526, December 30, 2021).

On July 28, 2023, NHTSA proposed new CAFE standards for model years 2030–2035 passenger cars and light trucks and new fuel efficiency standards for model years 2030–2035 heavy-duty pickup trucks and vans. The proposed rule would require an industry fleet-wide average of approximately 58 mpg for passenger cars and light trucks in model year 2032, by increasing fuel economy by 2 percent year over year for passenger cars and 4 percent year over year for light trucks (NHTSA 2023). For heavy-duty pickup trucks and vans, the proposed rule would increase fuel efficiency by 10 percent year over year (NHTSA 2023).

On June 7, 2024, U.S. Department of Transportation finalized and updated the CAFE standards for model years 2027–2031. In this final rule, fuel economy will increase 2 percent per year for model years 2027–2031 passenger cars and 2 percent per year for model years 2029–2031 light trucks. These increases will bring the average fuel economy of light-duty vehicles up to approximately 50.4 mpg by model year 2031. Fuel efficiency of heavy-duty pickup trucks and

vans will increase 10 percent per year for model years 2030–2032 and 8 percent per year for model years 2033–2035 (USDOT 2024).

3.6.2.2 State

California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce vehicle miles traveled. Additionally, California is transitioning to zero-carbon, renewable sources of power while requiring the rapid electrification of large segments of the economy.

Renewables Portfolio Standard

The State of California has adopted regulations to increase the proportion of electricity generated by renewable sources. California's Renewables Portfolio Standard (RPS) program was established in 2002 by Senate Bill (SB) 1078 with the initial requirement that 20 percent of electricity retail sales must be served by renewable resources by 2017. The RPS goal has since increased several times:

- *2008*: Executive Order S-14-08 increased the goal of the RPS to 33 percent renewable power by 2020.
- *2009*: Executive Order S-21-09 directed the California Air Resources Board (CARB) (acting under its authority established by Assembly Bill 32, the California Global Warming Solutions Act of 2006) to enact regulations to help the state meet the 2020 goal of 33 percent renewable energy. The RPS goal of 33 percent by 2020 was codified with the passage of SB X1-2 in 2011. This RPS applied to all electricity retailers in the state: publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators.
- *2015*: SB 350 increased the RPS to 50 percent by 2030, including interim targets of 40 percent by 2024 and 45 percent by 2027.
- *2018*: SB 100 increased California's RPS once more, requiring retail sellers and local publicly owned utilities to procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030. It also requires CARB to plan for 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

The CPUC and the California Energy Commission (CEC) jointly implement the RPS program. The CPUC's responsibilities are to do the following:

- Determine annual procurement targets and enforce compliance.
- Review and approve each investor-owned utility's renewable energy procurement plan.
- Review contracts for RPS-eligible energy.
- Establish the standard terms and conditions used in contracts for eligible renewable energy.

Senate Bill 1389

SB 1389 (Public Resources Code Sections 25300–25323) requires the CEC to prepare a biennial integrated energy policy report. The report must assess major energy trends and issues facing the

state's electricity, natural gas, and transportation fuel sectors and provide policy recommendations to conserve resources; protect the environment; ensure that reliable, secure, and diverse energy supplies are available; enhance the state's economy; and protect public health and safety (Public Resources Code Section 25301[a]). The CEC adopts an Integrated Energy Policy Report every 2 years and an update every other year. The report provides the results of the CEC's assessments related to energy sector trends, including energy equity, electricity reliability in Southern California, and forecasts of electricity and transportation energy demand.

Senate Bill 100

On September 10, 2018, Governor Jerry Brown signed SB 100, which mandated that all electricity in California be obtained from renewable and zero-carbon energy resources by December 31, 2045. SB 100 also created new standards for the RPS goals established by SB 350 in 2015. Specifically, the law increased the percentage of energy that must come from renewable sources for both investor-owned utilities and publicly owned utilities by 2030 from 50 percent to 60 percent. Incrementally, SB 100 required these energy providers to have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. The updated RPS goals are considered achievable because many California energy providers are already meeting or exceeding the RPS goals previously established by SB 350.

On the same day that he signed SB 100, Governor Brown signed Executive Order B-55-18, which established a new statewide goal to achieve carbon neutrality (net zero GHG emissions) by 2045 and to maintain net negative emissions thereafter.

Advanced Clean Cars Program

The Advanced Clean Cars emissions-control program was approved by CARB in 2012 and is closely associated with the Pavley regulations (CARB 2017). The program required automakers to produce a greater number of zero-emission vehicles in model years 2015–2025 to reduce the consumption of transportation fuels. The Advanced Clean Cars program includes the Low-Emissions Vehicle regulations, which reduce fuel use from light- and medium-duty vehicles; and the Zero-Emissions Vehicle regulations, which required manufacturers to produce an increasing number of pure Zero-Emissions Vehicles powered by battery and fuel cell and to continue producing plug-in hybrid electric vehicles between 2018 and 2025.

The primary mechanism for achieving the Zero-Emissions Vehicle target for passenger cars and light trucks is CARB's Advanced Clean Cars II Program. The program's regulations focus on post-2025 model year light-duty vehicles, as requirements are already in place for new vehicles through the 2025 model year.

Advanced Clean Trucks Program

The Advanced Clean Trucks regulations were approved on June 25, 2020, requiring manufacturers to sell zero-emissions or near-zero-emissions trucks as an increasing percentage of their annual California sales beginning in 2024 (CARB 2024a). The primary goal of this strategy is to reduce nitrogen oxide and GHG emissions through advanced clean technology, and to increase the

penetration of the first wave of zero-emissions heavy-duty technology into applications that are well suited to its use. The regulations are also intended to reduce the consumption of diesel fuel.

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, CARB adopted the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling to reduce the public's exposure to emissions of diesel particulate matter (California Code of Regulations Title 13, Section 2485 and Title 17, Section 93115) (CARB 2024b). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. Diesel-fueled commercial vehicles are prohibited from idling for more than 5 minutes at any given location. The goal of this measure is primarily to reduce public health impacts from diesel emissions, but compliance also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

In-Use Off-Road Diesel-Fueled Fleets Regulation

Because off-road vehicles used in construction and related industries can last 30 years or longer, most of those that are in service today are part of an older fleet that do not have emission controls. In 2007, CARB approved the In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation) to reduce emissions from existing (in-use) off-road diesel vehicles used in construction and other industries (CARB 2007).[3] The Off-Road Regulation specifies that off-road vehicles 25 horsepower and up may not idle for longer than 5 minutes. It also identifies target emission rates for off-road vehicles, which decline over time to accelerate the rate of turnover to newer, cleaner engines. The primary goal of the In-Use Off-Road Diesel-Fueled Fleets Regulation is to reduce public health impacts from diesel emissions, but compliance also saves energy by reducing fuel consumption for unnecessary idling and by promoting the use of more fuel-efficient engines.

The October 2023 amendments (Amendments) to the Off-Road Regulation were based on the importance of achieving further oxides of nitrogen (NO_x) emissions reductions from the off-road sector, as influenced by CARB's robust on-road regulatory and incentive policies, as well as achieving reductions for diesel particulate matter at a statewide level to reduce the health risk throughout California, especially in communities that experience disproportionate burdens from exposure to toxic air contaminants (CARB 2023). Elements of the Amendments include but are not limited to: (1) phase out of the older and highest-emitting off-road engines from operation in California; and (2) restrict the addition of vehicles with Tier 3 and 4i engines (CARB 2023).

3.6.2.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not

[3] Since its approval in 2007, the Off-Road Regulation has been amended twice in 2009, once in 2010, and most recently on October 1, 2023 (CARB 2023).

apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to energy that would otherwise be relevant to the Project and alternatives are described below.

City of San José General Plan

The City of San José General Plan provides Measurable Environmental Sustainability goals for the city through 2040, establishing measurable standards for achieving sustainable development practices. The following Measurable Environmental Sustainability policies are provided for informational purposes of sharing the city of San José's energy conservation and renewable energy goals (City of San José 2024):

> ***Policy MS-15.4*:** Promote local innovation, research, development, and deployment of renewable energy and energy efficiency technologies.
>
> ***Policy MS-16.1*:** Promote availability of a variety of tools and services for implementing energy conservation and renewable energy generation, including financing districts, energy auditing, and energy efficiency retrofit services to all residents and business owners.
>
> ***Policy MS-16.2*:** Promote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances.

Santa Clara County General Plan

The Santa Clara County General Plan (Santa Clara County 1994) includes the following policy related to energy resources that are relevant to the Project:

> ***Policy R-LU 73*:** The County's major gas and electric distribution system should be:
>
> a. adequate to meet the projected energy needs of the people of Santa Clara County; and
> b. compatible with the environmental resources and scenic qualities of the County.

3.6.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility will be responsible for implementing its measures only to that part of the Project for which it will own or be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Chapter 2, Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.6.3.1 Applicant-Proposed Measures

No Applicant-proposed measures (APMs) have been proposed by LSPGC to specifically reduce potential effects associated with energy.

3.6.3.2 PG&E Best Management Practices and Field Protocols

No best management practices (BMPs) or field protocols (FPs) have been proposed by PG&E to specifically reduce potential effects associated with energy. However, one of the PG&E BMPs discussed in Section 3.3, *Air Quality*, **PG&E BMP AQ-1: Vehicle Idling**, would reduce consumption of transportation energy (fuel use) during construction by minimizing unnecessary construction vehicles and reducing idling times. The PG&E BMP requires idling for construction vehicles to be limited to 5 minutes or less and indirectly supports energy conservation.

3.6.4 Significance Criteria

According to Appendix G of the CEQA *Guidelines*, the Project would result in a significant energy impact if it would do any of the following:

a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The CPUC has identified additional CEQA impact criteria specific to the types of projects evaluated by the CPUC that are to be considered along with the criteria identified in CEQA Guidelines Appendix G (CPUC 2019). With regard to energy, the Project would also result in a significant energy impact if it would:

c) Add capacity for the purpose of serving a nonrenewable energy resource.

3.6.5 Direct and Indirect Effects

3.6.5.1 Approach to Analysis

The assessment of energy impacts was based in part on assumptions made regarding the Project's construction-related diesel and gasoline consumption, and on estimates of the Project's operational energy requirements. In accordance with Appendices F and G of the CEQA Guidelines, the analysis focuses on the anticipated energy demand and energy efficiency of the Project as a whole—during

construction, operation, and maintenance of the Project components, including the proposed HVDC terminal sites and transmission lines. The analysis addresses whether the Project would result in the wasteful, inefficient, and unnecessary consumption of energy during construction or operation.

Energy use requirements, in the form of diesel fuel consumption by on-site off-road construction equipment, were estimated based on the Project's carbon dioxide emissions obtained from the California Emissions Estimator Model (CalEEMod), Version 2022.1.20. The carbon dioxide emissions were converted into fuel volumes using The Climate Registry's default emission factors for combustion of transport fuels (The Climate Registry 2025).

For on-road construction vehicles, the analysis assumed that light-duty automobiles and trucks used by commuting workers would be fueled by gasoline, and that on-road construction vehicles, such as vendor vehicles and trucks hauling soil and other materials, would use diesel fuel. Similar to the estimated volume of diesel fuel consumed by construction equipment, the quantities of fuels required by on-road vehicles during construction were calculated based on the carbon dioxide emissions associated with commuting workers and vendor and haul trips, using CalEEMod Version 2022.1.20. All estimates and calculations are detailed in Appendix B.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.6.5.2 Impact Assessment

Criterion a) Whether the Project would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during Project construction or operation.

Impact 3.6-1: The Project could result in wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of resources, during Project construction or operation. (*Less than Significant*)

Construction

The Project's construction activities would consume energy primarily in the form of transportation fuels (e.g., diesel and gasoline) used by heavy-duty trucks and equipment, such as graders, loaders, and dozers, and worker vehicles operating at the Project sites and traveling to and from construction areas. Any electric-powered equipment used would consume a minimal amount of electricity relative to the amount of diesel and gasoline consumed during Project construction; its use would likely be limited to trailer hookups from existing nearby distribution lines to provide energy for trailer lighting, heating, ventilation and air conditioning, and other equipment. Project construction activities would not consume natural gas.

Construction activities and associated fuels use would likely vary substantially from day to day during the 27-month construction period, depending on the phase and type of construction activity and the number of workers and vendors traveling to the construction areas. This analysis used the same assumptions as the air quality and GHG emissions analyses about the construction schedule, and the types, number, and level of construction equipment and vehicle use for each activity.

Table 3.6-2, *Project Construction Fuel Consumption*, identifies the fuel consumption anticipated to occur during Project construction. As shown, over the Project's 27-month construction period, worker vehicles would consume 30,535 gallons of gasoline and construction vehicles and equipment would consume 1,095,081 gallons of diesel. This equates to approximately 15,268 gallons of gasoline and 547,541 gallons of diesel per year.

TABLE 3.6-2
PROJECT CONSTRUCTION FUEL CONSUMPTION

Source Type	Gasoline (gallons)	Diesel (gallons)
Commuting Worker Vehicles	30,535	-
On-Road Vehicles and Off-Road Equipment	-	1,095,081
Project Total	**30,535**	**1,095,081**

NOTE: Fuel consumption during Project construction is based on a 2-year construction period.
SOURCE: LSPGC 2025, Appendix B.

For comparison purposes, the Project's annual average gasoline and diesel usage would represent less than 0.01 percent of the 2023 annual on-road consumption of gasoline and diesel fuel in Santa Clara County. Overall, fuel use during construction would be minimal compared to overall fuel use in the county.

During construction, the Project would use energy only for necessary on-site activities and to transport construction materials and workers to and from the Project sites. Both LSPGC and PG&E would comply with the California Code of Regulations Title 13, Sections 2485 and 2449, which require time limits for vehicle and in-use offroad equipment idling. Under these regulations, idling of commercial vehicles of over 10,000 pounds and off-road equipment over 25 horsepower would be limited to a maximum of 5 minutes. Further, PG&E has committed to implementing **PG&E BMP AQ-1, Vehicle Idling**, which would impose idling restrictions and would result in less fuel combustion and energy consumption, thus, reducing the construction-related energy resource use at the existing PG&E substations.

Project-specific construction-related energy demands would not be expected to have a significant adverse effect on energy resources. The amount, form, and use of energy required for construction activities would not be wasteful, inefficient, or unnecessary. Therefore, Project construction would not result in the wasteful, inefficient, and unnecessary consumption of energy. Impacts associated with transportation fuels for Project construction would be **less than significant**.

Operation and Maintenance

Ongoing Project operation and maintenance activities would be similar to those currently performed by PG&E at the existing San Jose B and Metcalf substations. LSPGC would retain one new full-time technician to support the Project and its other California projects. Among LSPGC's current routine activities are transmission line inspections, vegetation treatment, and brush and weed control, which require the use of vehicles and equipment. An increase of approximately 718 gallons of gasoline fuel annually would be needed to operate worker vehicles (LSPGC 2025). This increase in total energy use for the Project represents a minor increase compared to the amount of energy used by existing PG&E in the area. The proposed Grove to Skyline 320 kilovolt (kV) direct current (DC) Transmission Line (Grove to Skyline 320 kV Transmission Line), Metcalf to Grove 500 kV alternating current (AC) Transmission Line (Metcalf to Grove 500 kV Transmission Line), and proposed Skyline to San Jose B 230 kV AC Transmission Line (Skyline to San Jose B 230 kV Transmission Line) would be maintained in a manner consistent with the standards for transmission line operation and maintenance identified in CPUC General Order 128 as applicable, along with applicable local, state, and federal requirements.

The Project would not result in a potentially significant environmental impact from wasteful, inefficient, and unnecessary consumption of energy. The associated impact for Project operation and maintenance would be **less than significant**.

Mitigation: None required.

Criterion b) Whether the Project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The Project would not conflict with or obstruct a local or state plan for renewable energy or energy efficiency. (*No Impact*)

Construction

The energy standards mentioned in Section 3.6.2, *Regulatory Setting*, such as the Energy Policy Act of 2005 and the RPS, promote strategic planning standards intended to reduce the consumption of fossil fuels, increase the use of renewable resources, and enhance energy efficiency. In general, these regulations and policies specify statewide strategies to reduce fuel consumption and increase fuel efficiency and energy conservation. If the Project were to use energy resources in a wasteful manner, it would conflict with state energy standards.

Project construction would be conducted in a manner consistent with the goals and strategies of state energy standards. Construction activities would use fuel-efficient equipment consistent with state and federal regulations, such as fuel efficiency regulations in CARB's Pavley Phase II standards; the anti-idling regulation in California Code of Regulations (CCR) Title 13, Section 2485 (13 CCR Section 2485); and fuel requirements for stationary equipment in 17 CCR Section 93115 (concerning the Airborne Toxic Control Measures). In accordance with 13 CCR Sections 2485 and 2449, idling commercial vehicles heavier than 10,000 pounds and off-road equipment exceeding 25 horsepower would be limited to a maximum of 5 minutes. Although the intent of

these regulations is to reduce construction emissions, compliance with the anti-idling and emission reduction regulations would also result in fuel savings as a result of the more efficient use of equipment. Project construction would be short-term and would not result in a substantial permanent increase in the use of nonrenewable energy resources.

Demand for electricity would increase by a minor amount during the Project's construction phase. However, this increase would not conflict with the long-term RPS goal, as the electricity used on-site would be provided by PG&E distribution systems, which are required to comply with the RPS. Overall, the Project would increase the reliability of the existing transmission network while using a minor amount of electricity in compliance with the RPS. Increasing the efficiency of the transmission network would improve California's ability to supply renewable energy to end-use customers within the Greater San Francisco Bay Area service areas and to achieve statewide renewable energy goals. Additionally, when considering implementation of the state RPS program, the Project would not prevent the future use of renewable energy sources for electricity.

The Project would be consistent with all applicable goals and policies adopted by the local jurisdictions that support increased energy efficiency. Therefore, there would be **no impact** during construction.

Operation and Maintenance

Project operation and maintenance would include ongoing maintenance activities that would require using trucks and equipment that use nonrenewable fuels. Fuel use during Project operation and maintenance would not conflict with current applicable fuel use regulations and energy conservation standards. Therefore, there would be **no impact** during operation and maintenance.

Criterion c) Whether the Project would add capacity for the purpose of serving a nonrenewable energy resource.

The Project would not add capacity for the purpose of serving a nonrenewable energy resource. (*No Impact*)

The Project would connect the existing PG&E San Jose B Substation and PG&E Metcalf Substation via overhead and underground transmission lines and would provide additional transmission capacity. The existing PG&E San Jose B Substation is a 115 kV transmission substation connected to four 115 kV transmission lines. The PG&E Metcalf Substation is a 500/230/115 kV transmission substation connected to 2-500 kV, 8-230 kV, and 11-115 kV transmission lines. The Project would improve and maintain the reliability of the transmission grid by providing dynamic reactive power support and increasing deliverability of renewable power. Consequently, the Project would have a beneficial impact on regional energy supplies because it would help ensure that current energy needs are met and that capacity and infrastructure would be available to meet existing and projected future energy needs in the regional area. No adverse impact on local or regional energy supplies or capacity would result.

Impacts on peak or base electricity demands would occur if Project construction, operation, or maintenance were to require substantial enough amounts of electricity that LSPGC and other electricity utility providers would be required to increase available supply or production capacity. There may be a limited temporary increase in the use of electricity resources during construction, as discussed under criterion a). However, given the negligible amount of electricity required for the Project, construction would not impact peak or base power demands. Additionally, the Project would not affect the ability of the electricity generation facilities' to provide and maintain existing levels of service during peak and base period demands. Consequently, the Project would cause no adverse impact related to the demand for electricity or other forms of energy. Therefore, the Project would not add capacity for the purpose of serving a nonrenewable energy resource, and no impact would occur.

3.6.6 Cumulative Effects Analysis

The geographic context for potential cumulative impacts related to electricity use is PG&E's service area, and for equipment and vehicle fuel use is the area within the Project's construction equipment delivery and workers' average travel radius. These areas represent the geographic context because they are the areas within which energy resources would be supplied for the Project. The Project would use energy resources during initial construction, operation, and maintenance; therefore, the temporal context is during any of these phases as well.

3.6.6.1 Criterion a)

Impact C.3.6-1: The Project, in combination with the cumulative projects, could result in wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation. (*Less than Significant*)

Regarding electricity, there is no existing significant adverse condition that would be worsened or intensified by the Project. Alternatively, the Project would allow for more efficient transmission and use of energy that would be delivered to the Greater San Francisco Bay Area and would contribute to electrical grid reliability. No significant adverse cumulative effects related to wasteful, inefficient, or unnecessary consumption would occur from electricity use; instead, a beneficial cumulative impact related to efficient transmission of electricity and grid stability would result.

Regarding the efficiency of fuel use, there is also no existing significant adverse condition, such as a shortage of fuel resources, that would be worsened or intensified by the Project. The past, present, and reasonably foreseeable future projects described in Figure 3.0-1a and Figure 3.0-1b could require gasoline or diesel but would not combine with the Project's fuel demands to cause a significant adverse cumulative impact related to the wasteful, inefficient, or unnecessary consumption or use of fuel. In the event of a future fuel shortage, higher prices at the pump would curtail unnecessary trips that could be deemed "wasteful" and would moderate choices regarding vehicles, equipment, and fuel efficiency. For these reasons, the Project's less-than-significant impact related to wasteful, inefficient, or unnecessary consumption or use of fuel would not be

cumulatively considerable. Thus, the Project's cumulative energy impact would be **less than significant**.

Mitigation: None required.

3.6.6.2 Criterion b) and c)

As discussed in Section 3.6.5.2, *Impact Assessment,* there would be no impact with respect to a conflict with, or obstruction of, a state or local plan for renewable energy or energy efficiency, or with respect to adding capacity for the purpose of serving a nonrenewable energy resource. Therefore, the Project would not contribute to any potential significant cumulative impacts regarding these criteria. (*No Impact*)

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3.7 Geology, Soils, and Paleontological Resources

This section evaluates the impacts of the Project on geology, soils, and paleontological resources. It includes information about the physical and regulatory setting, and it identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. The information and analysis presented are based in part on a paleontology report presented in **Appendix D**, *Paleontological Resources Technical Report*.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the EIR. **Appendix A**, *Scoping Report***,** includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to geology, soils, and paleontological resources.

3.7.1 Environmental Setting

3.7.1.1 Study Area

The study area for this analysis of potential impacts related to geology, soils, and paleontological resources is limited to the Project area and its immediately adjacent area, with the exception of seismic impacts. This is because Project impacts relative to geology, soils, and paleontological resources are generally site-specific and depend on the nature of the existing geologic and soil units. For example, erosion impacts would be limited to the Project site and possibly the immediately adjacent properties. For seismic impacts, the study area extends to the San Andreas fault zone, located approximately 11 miles west of the Project site, and the Calaveras fault zone, 7 miles to the east. This is the extent of the study area relative to seismicity because seismic shaking from active faults such as the San Andreas fault zone could adversely affect the Project site.

3.7.1.2 Regional Geology

The Project is located within the City of San José and unincorporated Santa Clara County. The Project area is located in the Coast Range Geomorphic Province, which spans approximately 400 miles along the California coast from the northern California border to Santa Barbara County, and approximately 50–75 miles from the Pacific Ocean inland (to the east). The ranges and valleys trend northwest, generally parallel to the San Andreas Fault. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary rock layers. The northern and southern ranges are separated by a depression containing the San Francisco Bay (CGS 2002).

The Project area lies within the Santa Clara Valley, a depositional basin receiving sediment derived primarily from erosion of the Santa Cruz Mountains to the west and south, with minor amounts of sediment derived from the Diablo Range to the northeast. To the northwest, this depositional basin opens into the south end of San Francisco Bay. Several northwest–trending faults border the Santa Clara Valley—the San Andreas Fault transects the Santa Cruz Mountains to the southwest of the valley, and the Calaveras and Hayward Faults extend along its northeastern margin bordering the Diablo Range. The Santa Cruz Mountains to the southwest of the San Andreas Fault consist of granitic and mafic crystalline basement rocks, while the basement rocks to the northeast of the fault

consist of accreted Franciscan Complex rocks overlain by rocks of the Coast Range ophiolite and Mesozoic marine clastic rocks. During the Pleistocene and Holocene, a series of transgressive sedimentary sequences of alluvial fan, alluvial flood plain, alluvial delta, and bay deposits filled the Santa Clara Valley with sediment over the course of at least 800,000 years. Today, numerous rivers and streams draining from the surrounding mountain ranges have incised the surficial Pleistocene and Holocene deposits and transported the eroded sediments into San Francisco Bay (PaleoServices 2024).

3.7.1.3 Local Geology

The Project area is underlain by an assortment of Holocene-age alluvial and fluvial deposit, as well as serpentinite of the Jurassic-age Coast Range Ophiolite complex, as indicated in **Figure 3.7-1***, Active Faults and Geologic Units*. Based on published literature analyzed in the paleontological report conducted for the Project in 2024, the Holocene-age alluvial and fluvial deposits in this region transition at relatively shallow depths into older Pleistocene-age alluvial deposits. Additionally, a geotechnical feasibility study conducted for the proposed Skyline high-voltage direct current (HVDC) Terminal (Skyline HVDC Terminal) site identified artificial fill measuring up to 7 feet thick. Although not formally mapped along the Project area, artificial fill related to previous development and road construction in the area is anticipated to underlie other Project components (PaleoServices 2024).

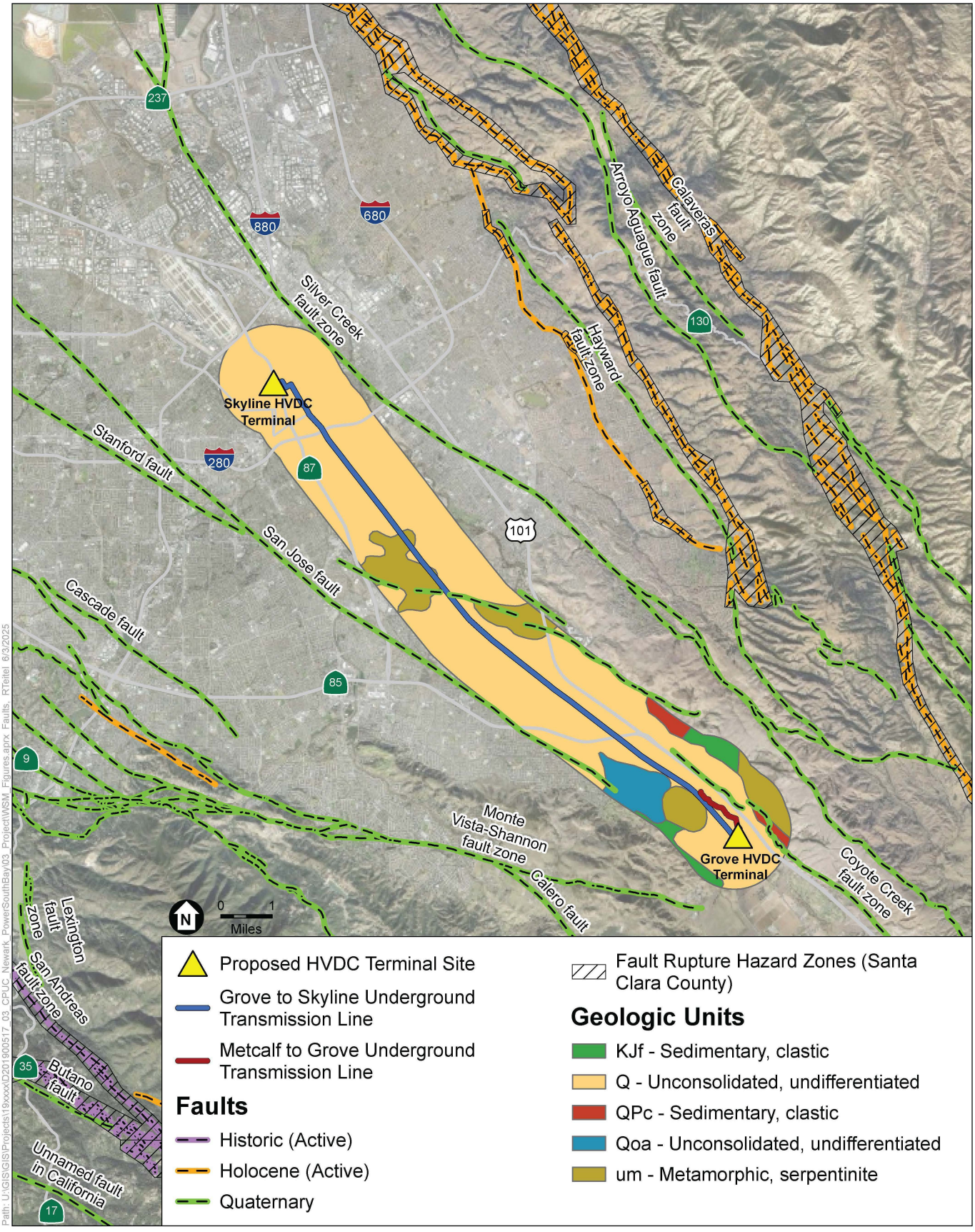
The results of the paleontological records searches and literature review, discussed further in Section 3.7.1.5, *Paleontological Resources*, indicate that the Project area is underlain at the surface by artificial fill deposits with no paleontological potential and an assortment of Holocene-age alluvial, fluvial, and estuarine deposits, which are assigned a low paleontological potential (PaleoServices 2024). Pleistocene-alluvial deposits with high paleontological potential were not mapped at the surface of the Project area.

Geologic Units and Paleontological Resources

The paleontological resources technical report prepared for the Project provides a detailed description of geologic units and paleontological resources along the Project area, as summarized below (PaleoServices 2024).

Holocene alluvial and fluvial deposits

Holocene-age (generally less than 11,700 years old) sediments deposited in a variety of settings underlie the majority of the Project area at the surface. The mapped Holocene units include: basin deposits (associated with low-lying deposition alongside levees or flood plain deposits), natural levee deposits associated with the San Joaquin River, flood plain deposits, stream channel deposits, and alluvial fan deposits. The Holocene-age sediments in this area are generally unconsolidated and range in composition from clay, silty clay, clayey silt, and sandy silt to silty sand, sand, and sandy gravel with minor cobbles and boulders, depending on their depositional setting. A records search conducted for the Project concluded that no documented fossil collection localities from Holocene alluvial or fluvial deposits are located within a 1-mile radius of Project components (PaleoServices 2024). The Holocene age of these deposits generally suggests that they are too young to contain fossil remains. However, it has been well documented in the south San Francisco Bay region that Pleistocene-age sedimentary deposits are present in the relatively shallow subsurface in this area.



SOURCE: ESA, 2024; CGS, 2021; USGS, 2024

Power Santa Clara Valley Project

Figure 3.7-1
Active Faults and Geologic Units

Pleistocene alluvial deposits

Pleistocene-age alluvial deposits are not mapped at the surface along the Project area, but prior discoveries of late Pleistocene-age (approximately 129,000–11,700 years old) fossil vertebrates within the Santa Clara Valley indicate that these deposits underlie Holocene-age alluvial and fluvial deposits at relatively shallow depths. Fossil-bearing deposits in the Santa Clara Valley consist of silty sand hardpan with clay-lined cracks, silty sand, sand with lenses of clay, mud, and sandy gravel. Pleistocene alluvial deposits exposed more broadly in the Santa Clara Valley consist of "a fining upward section of alluvial gravel, sand, silt, and clay overlain at the distal margin by estuarine mud" that is capped by a thick clayey soil horizon, over which Holocene sediments were deposited (PaleoServices 2024).

Jurassic Coast Range Ophiolite complex – serpentinite

The Coast Range Ophiolite is a complex geologic unit representing oceanic crust and upper mantle rocks that formed during the Jurassic (170–155 million years ago) in association with an ancient sea floor spreading center. These rocks were subsequently accreted to the North American continental margin during closure of a forearc basin and underthrusting by rocks of the Franciscan subduction complex. The portion of the Coast Range Ophiolite underlying the Project area is mapped as serpentinite that has been hydrothermally metamorphosed from ultramafic igneous rocks. These rocks are present at the southern end of the Project, near the existing PG&E Metcalf Substation, the proposed Metcalf to Grove 500 kV alternating current (AC) Transmission Line (Metcalf to Grove 500 kV Transmission Line), and the southern end of the proposed Grove to Skyline 320 kV direct current (DC) Transmission Line (Grove to Skyline 320 kV Transmission Line). As shown in Figure 3.7-1, these rocks are present directly west of the PG&E Metcalf Substation across Monterey Road, as well as east of the proposed Grove HVDC Terminal across U.S. Highway 101.

The plutonic igneous protolith and subsequent metamorphism of these rocks preclude the possible presence of identifiable fossil remains. Plutonic igneous rocks do not preserve fossils because they crystallize at extremely high temperatures and pressures several miles below the earth's surface in conditions that do not support complex life. The mineral composition of these rocks would have then altered during serpentinization, which is an exothermic process resulting from the absorption of water into ultramafic rocks and the oxidation of their component minerals.

3.7.1.4 Seismic and Geologic Hazards

Faults and Seismicity

Faults are planar features within Earth's crust that have formed to release strain caused by the dynamic movements of its major tectonic plates. An earthquake on a fault is produced when these strains overcome the inherent strength of Earth's crust and the rock ruptures. The rupture causes seismic waves that propagate through the crust, producing the ground-shaking effect known as an *earthquake*. The rupture also causes variable amounts of slip along the fault, which may or may not be visible at Earth's surface.

Geologists commonly use the age of offset rocks as evidence of fault activity—the younger the displaced rocks, the more recent the earthquakes have occurred. To evaluate the likelihood that a fault would produce an earthquake, geologists examine the magnitude and frequency of recorded

earthquakes and evidence of past displacement along a fault. The California Geological Survey defines an *active fault* as one that has had surface displacement within Holocene time (within the last 11,700 years); the U.S. Geological Survey uses displacement within the last 15,000 years to define an active fault. A *Quaternary fault* is defined as a fault that has shown evidence of surface displacement during the Quaternary period (the last 2.6 million years) unless direct geologic evidence demonstrates inactivity during the Holocene or longer.

Surface Fault Rupture

The State of California has established "Alquist-Priolo Special Studies Zones" in areas where Holocene faults pose a risk of surface fault rupture or displacement. The Alquist-Priolo Earthquake Fault Zoning Act of 1972 regulates the construction and development of buildings intended for human occupancy to avoid rupture hazards from surface faults.

Based on the available geologic data, the Project proposed HVDC Terminal sites and proposed transmission lines are not in a designated Alquist-Priolo Earthquake Fault Zone (CGS 2024). There are approximately six faults within 10 miles of the Project area, detailed in **Table 3.7-1,** *Faults within 10 Miles of the Project*, and in Figure 3.7-1. The Project area is not located in and does not cross any Holocene fault zones. The closest Holocene fault to the Project is the Monte Vista-Shannon fault. At its closest point to the Project, the Monte Vista Fault is approximately 1.5 miles to the west. The San Andreas Fault is approximately 11 miles west of the Project at its closest point (CGS 2015). The northeastern boundary of the existing PG&E Metcalf Substation is located in a county-identified fault rupture zone (Santa Clara County 2012).

TABLE 3.7-1
FAULTS WITHIN 10 MILES OF THE PROJECT

Fault Name	Age	Sense of Slip	Approximate Distance from the Project	Nearest Project Component
Coyote Creek fault zone	Undifferentiated Quaternary	Unspecified	Intersects	Grove to Skyline 320 kV DC Transmission Line
Monte Vista-Shannon fault zone	Latest Quaternary	Reverse	1.5 miles	Grove HVDC Terminal
Hayward fault zone	Latest Quaternary	Right Lateral	2.1 miles	PG&E Metcalf Substation
Calaveras fault zone	Late Quaternary	Right Lateral	4 miles	Grove HVDC Terminal
Sargent fault zone	Latest Quaternary	Reverse	9 miles	Grove HVDC Terminal
San José fault	Undifferentiated Quaternary	Unspecified	0.8 mile	Grove to Skyline 320 kV DC Transmission Line
Stanford fault	Undifferentiated Quaternary	Unspecified	2.5 miles	Grove to Skyline 320 kV DC Transmission Line
Silver Creek fault zone	Undifferentiated Quaternary	Right Lateral	1 mile	Grove to Skyline 320 kV DC Transmission Line
Cascade fault	Undifferentiated Quaternary	Reverse	5 miles	Grove to Skyline 320 kV DC Transmission Line
Berrocal fault	Undifferentiated Quaternary	Reverse	7.5 miles	Grove HVDC Terminal

NOTES: CGS = California Geologic Survey
SOURCE: CGS 2015

Seismic Ground Shaking

Several factors influence how ground motion interacts with structures, making the impact hazard of ground shaking difficult to predict. Seismic waves propagating through Earth's crust are responsible for the ground vibrations normally felt during an earthquake. Seismic waves can vibrate in any direction and at different frequencies, depending on the frequency content of the earthquake, its rupture mechanism, the distance from the seismic epicenter, and the path and material through which the waves are propagating.

Soils present at the proposed HVDC Terminal sites are listed in **Table 3.7-2**, *Mapped Soil Units and Soil Properties*. Most of the soils may be classified as Site Class C, very dense soil and soft rock, according to California Building Code (CBC) Section 1613.2.2 of 2019/22 and Table 20.3-1 of American Society of Civil Engineers (2016) 7-16.

Site Class C is defined as a profile consisting of stiff soil with a shear wave velocity between 1,200 feet per second and 2,500 feet per second, standard penetration test blow counts (N-value) of over 50 blows per foot, or undrained shear strength. Stiffer soils generally experience less ground acceleration from seismic ground shaking. Portions of the Project area underneath the proposed Grove to Skyline 320 kV Transmission Line are designated as a Site Class A, which indicates sandier soil that would experience greater ground acceleration from seismic shaking.

Liquefaction

Liquefaction occurs where strong ground motions produce a rise in pore-water pressures that in turn causes granular material to briefly lose strength and liquefy. This can lead to settlement, lateral spreading, and damage to structures, even in areas of flat topography. Ground motions have the potential to trigger liquefaction in areas of unconsolidated granular sediment and shallow groundwater. The risk of liquefaction is highest in areas with high predicted ground motions, unconsolidated sediments, and shallow groundwater.

The Project is located on a California Geologic Survey Liquefaction Zone, which indicates that soils within the Project area could be at risk for settlement, lateral spreading, and damage to structures (CGS 2022).

Landslides

Landslides typically occur on moderate to steep slopes when masses of rock or earth move down a slope. Landslides can be caused by natural events (e.g., rainfall, earthquakes, and soil erosion) or human activities (e.g., grading) that can result in unstable fill slopes or excessive cuts. Important factors that affect slope stability include the steepness of the slope and the strength of the rock or soil materials.

The Project area is in the Santa Clara Valley. The majority of the Project area is located on areas with no, or very slight, slopes where no previous landslides have occurred. Areas prone to landslides can be found in the foothill and mountain areas, including areas of the Project components proposed near the Coyote Creek Parkway, adjacent to U.S. Highway 101. These areas include the existing PG&E Metcalf Substation, the proposed Grove HVDC Terminal, portions of the proposed Metcalf to Grove 500 kV Transmission Line, and the Grove to Skyline

320 kV Transmission Line (USGS 2025a). Although portions of the Project area are susceptible to landslides, no instances of landslides have been documented in the Project area (USGS 2025a).

TABLE 3.7-2
MAPPED SOIL UNITS AND SOIL PROPERTIES

Alignment Map Unit Symbol	National Map Unit Symbol	Map Unit Name	Hydrologic Group	Wind Erodibility Index (T/Ac/Yr)[1]	K Factor	Slope Percent	Stability Concerns[2]
Skyline HVDC terminal							
165	1qsvl	Urbanland-Campbell complex	C	N/A	N/A	0–2	N/A
Grove HVDC terminal							
YeA	2w8b2	Yolo silty clay loam	C	48	0.49	0–2	Moderate
131		Urban land–Elpaloalto complex	C	--	--	0–2	N/A
165	1qsvl	Urbanland–Campbell complex	C	--	--	0–2	None
106	2tyz6	Botella loam	C	48	0.24	0–2	None
107	2vbt2	Clear Lake Clay, drained	D	86	0.17	0–2	Very Expansive
125	hb6k	Marvin silt loam, saline-alkali	C	48	0.49	0–2	Expansive
132	hb6s	Omni silty clay loam, strongly saline	None	48	0.24	0–2	Expansive
139	2yrfr	Reyes Clay	D	48	0.2	0–2	Very Expansive
165	2pcgj	Urbanland–Campbell Complex	C	--	--	0–2	--
171	1qsvn	Elder fine sandy loam, protected, rarely flooded	A	86	0.2	0–2	None
168	2mfbm	Elder fine sandy loam, protected,	A	86	0.2	0–2	None
151	2pcgs	Embarcadero silty clay loam, drained	C	86	0.24	0–2	Very Expansive
101	2l7vl	Urban land, basins	None	--	--	0–2	--
137	2yrfp	Novato clay, tidally flooded	C/D	0	0.17	0–1	Very Expansive
166	1t6cf	Campbell silt loam, protected	C	48	0.37	0–2	Expansive
161	216bk	Clear Lake silty clay, drained	C	86	0.28	0–2	Expansive

NOTES: NRCS = U.S. Natural Resources Conservation Service

1. Mass in tons of soil moved per unit area (acre) per year.
2. Stability concerns include soils that have properties prone to erosion, liquefaction, and differential settling.

SOURCES: NRCS 2002, 2025

Soils

The soil types along the Project area are listed in Table 3.7-2 and displayed in **Figure 3.7-2a** to **3.7-2d**, *Mapped Soil Units in the Project Area.* The table also documents selected soil properties, including hydrologic group, wind erodibility, and slope percent. The *hydrologic group classification* is a measure of infiltration rate and runoff potential. Group A soils have the highest infiltration rates and lowest runoff potentials; they are typically coarse-grained and deep. Conversely, Group D soils have the lowest infiltration rates and highest runoff potential; they are typically fine-grained and shallow, or in areas with high water tables. Groups B and C are intermediate.

Soil Erosion

The U.S. Natural Resources Conservation Service has developed a rating, known as the *erodibility factor* or *K-factor*, to evaluate the susceptibility of soils to erosion by water. The soil-erodibility factor (K) represents the following (State Water Board 2024):

- The susceptibility of soil or surface material to erosion.
- The transportability of the sediment.
- The amount and rate of runoff given a particular rainfall input, as measured under a standard condition.

K-factor ratings are numbered 0.00–0.65, with 0.00–0.25 being considered low, 0.25–0.45 being moderate, and 0.45–0.65 being high. The soil on-site has a low-to-moderate susceptibility to erosion, with a maximum K value of 0.49 (NRCS 2025).

Wind erosion is similarly most prevalent in silty and fine sandy soils with sparse vegetation. Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion. Wind erodibility is rated on a scale of 0–310, with 0 being soils that are not susceptible to wind erosion because of coarse fragments or wetness and 310 being soils that are made up of very fine sand, fine sand, sand, or coarse sand that are highly susceptible to wind erosion (NRCS 2002). Soil found in the Project area have low wind erodibility ratings, with soil at the Project area having a maximum wind erodibility rating of 86 (NRCS 2025).

Collapsible Soils

Collapsible soils are defined by the U.S. Bureau of Reclamation as any unsaturated soil that goes through a radical rearrangement of particles and great decrease in volume upon wetting, additional loading, or both (Reclamation 1992). Collapse occurs as water enters the pores between the individual sand and silt grains and weakens the “bonding” of the clays or other binding agents. Overburden or applied weight causes soil particles to slide across one another (shear), filling voids and resulting in a reduction in the overall volume of the soil (NRCS 2004). Soils susceptible to collapse typically contain a large amount of void space, have a low bulk density, are geologically young, have a clay content of less than 30 percent, and have a large percentage of pore space (in the range of 40–60 percent). Portions of the Project area that are located in sand or in sandy loam could potentially be collapsible. Group A soils, listed in Table 3.7-2, typically have less than 10 percent clay and more than 90 percent sand (USDA 2009). These soils could be more susceptible to collapse.

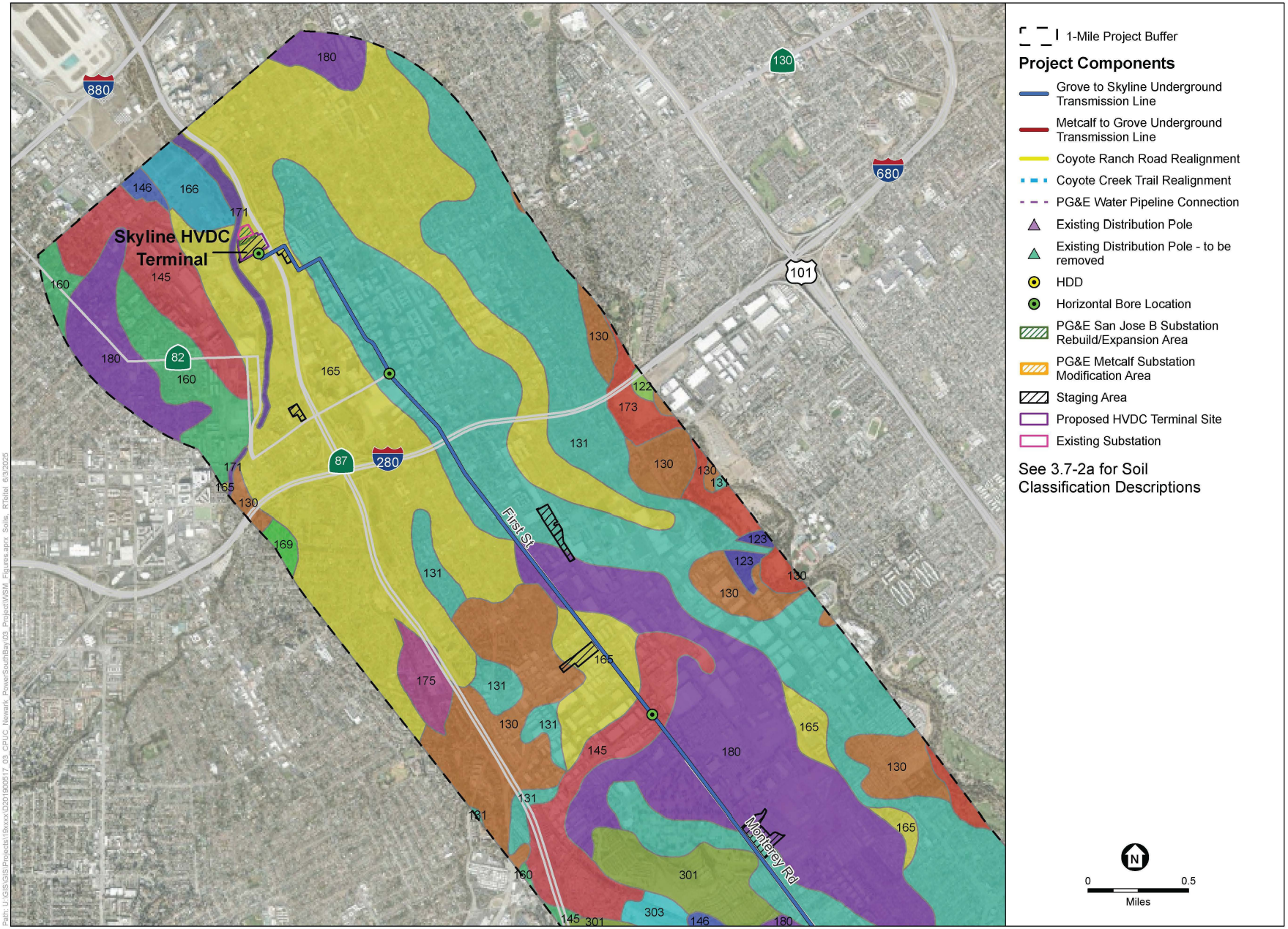
Path: U:\GIS\GIS\Projects\19xxxx\D20190517_03_CPUC_Newark_PowerSouthBay\03_Project\WSM_Figures.aprx Soils Cover RTaitel 6/2/2025

SOURCE: ESA, 2024; NRCS, 2024

Power Santa Clara Valley Project

Figure 3.7-2a
Mapped Soil Units
in the Project Area

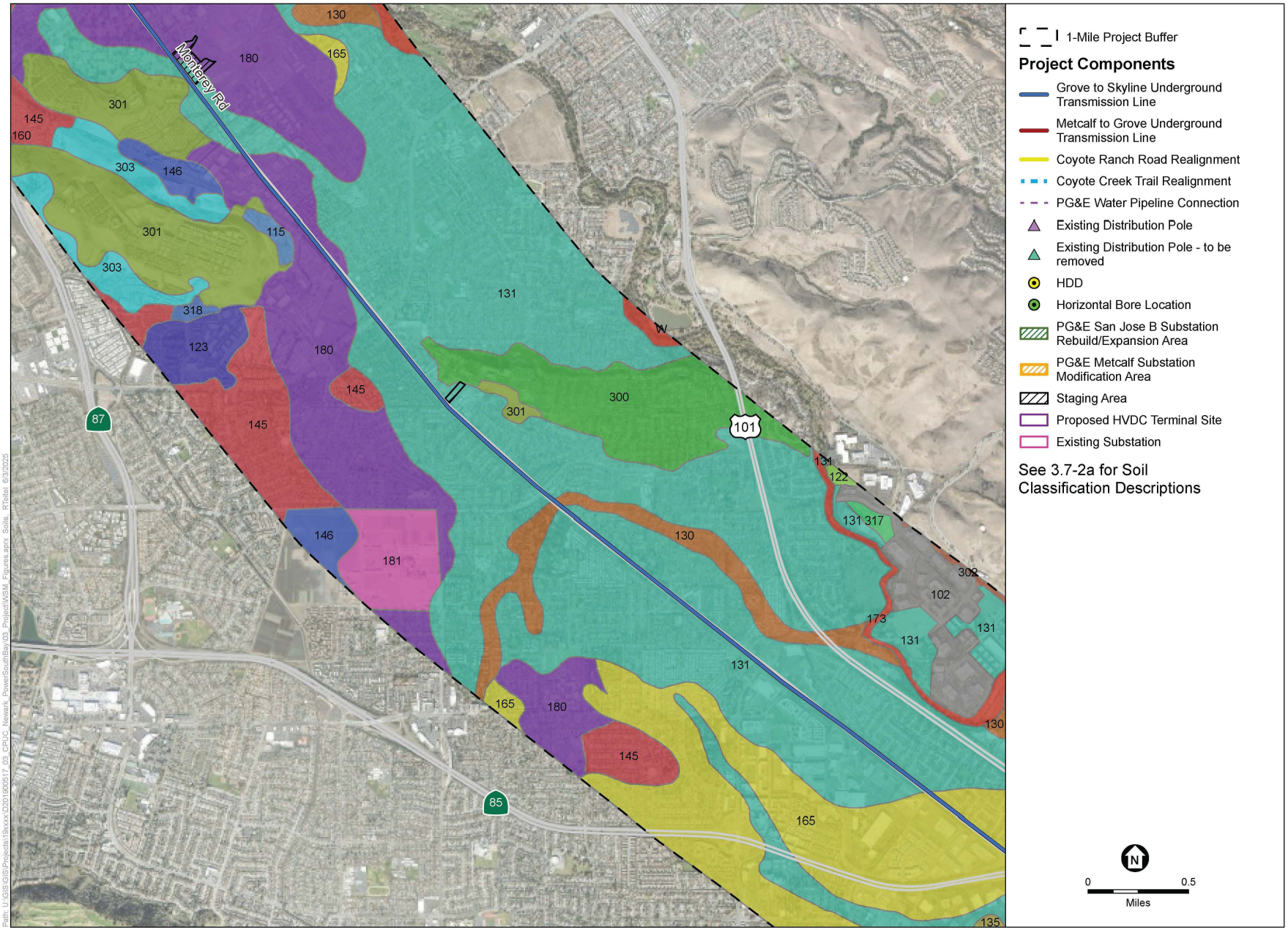
ESA



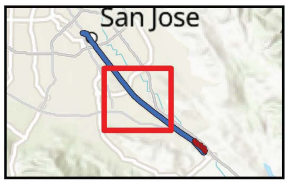
SOURCE: ESA, 2024; NRCS, 2024

Power Santa Clara Valley Project

Figure 3.7-2b
Mapped Soil Units
in the Project Area



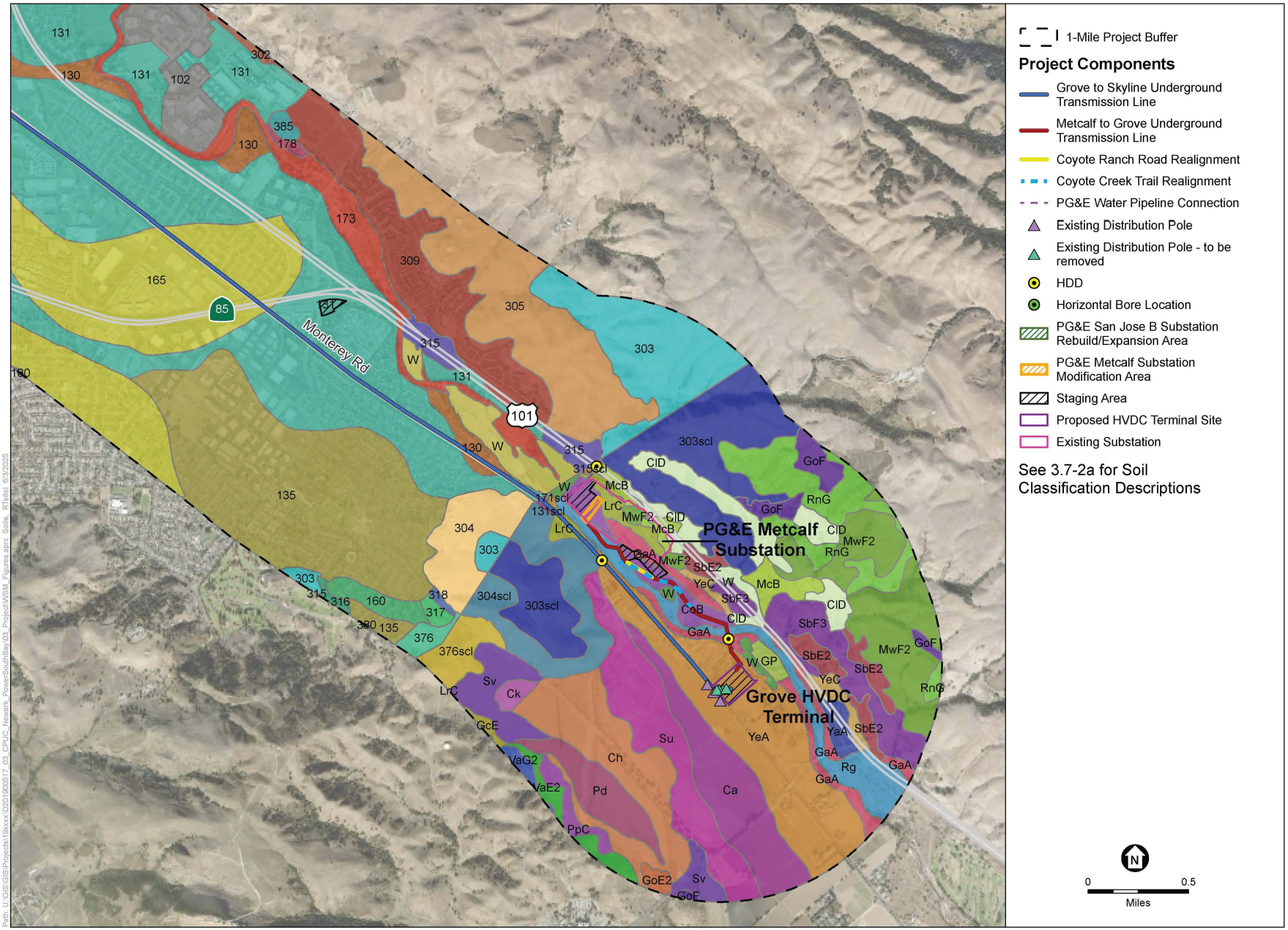
SOURCE: ESA, 2024; NRCS, 2024



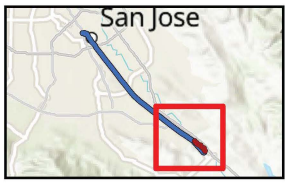
Power Santa Clara Valley Project

Figure 3.7-2c
Mapped Soil Units in the Project Area

ESA



SOURCE: ESA, 2024; NRCS, 2024



Power Santa Clara Valley Project

Figure 3.7-2d
Mapped Soil Units
in the Project Area

Expansive Soils

Expansive soils are soils that possess a "shrink-swell" characteristic, also referred to as linear extensibility. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. The swelling capacity can cause heaving or lifting of structures while shrinkage can cause differential settlement. *Linear extensibility percent* is the linear expression of the volume difference of natural soil. As outlined in Table 3.7-2, soils in the Project area that that are expansive or highly expansive.

Subsidence

Subsidence is most often caused by the withdrawal of large volumes of fluids (groundwater or crude oil) from underground reservoirs, but it can also occur by the addition of surface water to certain types of soils. Subsidence has been previously recorded within Alameda and Santa Clara counties because of groundwater pumping; including locations within the Project area (USGS 2025b). However, since the mid-1930s, the Santa Clara Valley Water District has implemented aquifer recharge efforts by building dams, importing water, and implementing a pumping tax. Subsidence was halted in the late 20th century (USGS 2018).

3.7.1.5 Paleontological Resources

Paleontological resources, or *fossils*, are the evidence of once-living organisms preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces thereof (e.g., trackways, imprints, burrows). Fossils greater than 5,000 years old (i.e., older than middle Holocene in age) may be considered potential paleontological resources and are typically preserved in sedimentary rocks. Although they are rare, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions. Fossils occur in a non-continuous and often unpredictable distribution within some sedimentary units, and the potential for fossils to occur within sedimentary units depends on several factors.

In October 2023, the Department of PaleoServices of the San Diego Natural History Museum prepared a paleontological resources technical report and updated the report in March 2024 (PaleoServices 2024). The report summarizes the results of the paleontological records search of the paleontological collections at San Diego Natural History Museum and the University of California Museum of Paleontology and a review of relevant paleontological and geologic literature. These tasks were undertaken to determine whether any documented fossil collection localities exist within the Project area. The report assigns a paleontological resource sensitivity rating to the geologic units underlying the Project area. The rating is based on the published geologic mapping, the results of the paleontological records searches, literature review, and assessment of potential Project-related impacts on paleontological resources.

The Society of Vertebrate Paleontology has developed standard procedures for assessment and mitigation of impacts on paleontological resources that are commonly used in CEQA environmental reviews (SVP 2010). The Society of Vertebrate Paleontology guidelines evaluate paleontological potential (or paleontological sensitivity) of individual geologic units based on the existence of known fossil localities within a given geologic unit or the potential for future fossil

discoveries, given the age and depositional environment. These guidelines include four classes of paleontological potential: high potential, undetermined potential, low potential, or no potential. Pleistocene-age alluvial deposits are assigned a high paleontological potential, Holocene-age alluvial and fluvial deposits are assigned a low paleontological potential, artificial fill and the Coast Range ophiolite complex are assigned no paleontological potential. Geologic units are assigned an undetermined potential if there is little information available concerning their paleontological content, geologic age, and depositional environment. Taking a conservative approach, geologic units with an undetermined potential are also considered to be potentially fossil-bearing until proven otherwise.

The vast majority of the Project area is underlain at the surface by Holocene-age alluvial and fluvial deposits, which likely transition at depths as shallow as 7 feet below ground surface to Pleistocene-age alluvial deposits, as well as serpentine of the Jurassic-age Coast Range Ophiolite complex. Artificial fill is mapped along portions of the Project area and is also likely present elsewhere in the Project area in association with previous development, including roadway construction. The thickness of artificial fill is unknown, but it is conservatively estimated that Pleistocene-aged alluvial deposits could be present at depths as shallow as 7 feet below ground surface (PaleoServices 2024).

The paleontological records search found no documented fossil collection localities from Pleistocene alluvial deposits within a 1-mile radius of Project components (San Diego Natural History Museum paleontological collections data). However, the University of California Museum of Paleontology records search identified two Pleistocene vertebrate fossil localities approximately 4 miles northwest of the proposed Skyline HVDC Terminal site, along the Guadalupe River north of the San José Mineta International Airport. These localities produced a partial skull and skeletal elements of a juvenile mammoth (*Mammuthus columbi*) and dental and skeletal elements of a variety of land mammals.

3.7.2 Regulatory Setting

3.7.2.1 Federal

Clean Water Act

The federal Clean Water Act (CWA) and subsequent amendments, under the enforcement authority of the U.S. Environmental Protection Agency, was enacted “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” The purpose of the CWA is to protect and maintain the quality and integrity of the nation’s waters by requiring states to develop and implement state water plans and policies. The CWA gave the U.S. Environmental Protection Agency the authority to implement pollution control programs such as setting wastewater standards for industry.

The CWA also sets water quality standards for surface waters and established the National Pollutant Discharge Elimination System (NPDES) program to protect water quality through various sections of the CWA, including Sections 401–404 and 303(d). In California, the implementation and enforcement of the NPDES program is conducted through the State Water

Resources Control Board (State Water Board) and the nine regional water quality control boards. Section 402 of the CWA would apply to the Project because construction at the Project area would be required to control discharges of sediment and other pollutants from point sources, as discussed further below.

National Earthquake Hazards Reduction Act of 1977

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) created the National Earthquake Hazards Reduction Program (NEHRP), establishing a long-term earthquake risk reduction program to better understand, predict, and mitigate risks associated with seismic events. Four federal agencies are responsible for coordinating activities under the NEHRP: the U.S. Geological Survey, National Science Foundation, Federal Emergency Management Agency, and National Institute of Standards and Technology. Since its inception, the NEHRP has shifted its focus from earthquake prediction to hazard reduction. The current program objectives are as follows:

- Improve understanding of earthquake processes and impacts.
- Develop cost-effective measures to reduce earthquake impacts on individuals, the built environment, and society at large.
- Improve the earthquake resilience of communities nationwide.

Implementation of NEHRP objectives is accomplished primarily through original research, publications, and recommendations and guidelines for local, regional, and state agencies in the development of plans and policies to promote safety and emergency planning.

3.7.2.2 State

California Public Utilities Commission General Order 95

The CPUC's Electric Safety and Reliability Branch has jurisdiction over the safety of overhead and underground electric and communications line construction of all investor-owned utilities, co-ops, and municipalities. CPUC General Order 95, *Rules for Overhead Line Construction*, provides general standards for the design, construction, and maintenance of overhead electrical supply and communication facilities under CPUC jurisdiction. "Facilities" includes power lines, service drop lines, conductors, towers, poles, and other structures.

California Public Utilities Commission General Order 128

CPUC General Order 128 governs the construction and operation of underground transmission lines associated with public utilities in the State of California. The stated purpose of CPUC General Order 128 is to formulate uniform requirements for underground transmission lines to help ensure adequate service and safety for all those involved in the construction and operation of underground transmission, as well as to the public in general. CPUC General Order 128 was adopted in 1967 and has been amended multiple times.

California Building Code

The Project would be subject to the applicable sections of CBC Title 24, Part 2, which is administered by the California Building Standards Commission. Under state law, all building standards must be centralized in Title 24 to be enforceable. The CBC contains necessary California amendments, which are based on American Society of Civil Engineers/Structural Engineering Institute Standards. These standards provide requirements for general structural design and include means for determining earthquake loads, as well as other loads for inclusion into building codes. The earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients, which are used to determine a seismic design category for a project. Once a project is categorized according to a seismic design category, design specifications can be determined. 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.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was enacted in 1972 to protect human-occupied structures from the hazard of surface faulting. In accordance with this law, the State Geologist has established regulatory zones called *earthquake fault zones* around the surface traces of active faults and has published maps showing these zones. Buildings for human occupancy cannot be constructed across surface traces of faults that are determined to be active. Because many active faults are complex and consist of more than one branch that may experience ground surface rupture, earthquake fault zones extend approximately 200–500 feet on either side of the mapped fault trace.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) directs the California Geologic Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of this program is to minimize the loss of life and property through the identification, evaluation, and mitigation of seismic hazards. Seismic Hazard Zone Maps that identify Zones of Required Investigation have been generated as a result of the program. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes. The Project is in an area that has not yet been mapped as part of the Seismic Hazards Mapping Act.

National Pollutant Discharge Elimination System Construction General Permit

Project construction would be subject to the *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2022-0057-DWQ, NPDES No. CAS000002), commonly referred to as the Construction General Permit. The Construction General Permit regulates discharges of sediment and other pollutants in stormwater associated with construction activity to waters of the United States from construction sites that disturb 1 acre or more of land surface, or that are part of a common plan of development or sale that disturbs more than 1 acre of land surface. The permit

regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The Construction General Permit requires that construction sites be assigned a Risk Level of 1 (low), 2 (medium), or 3 (high), based both on the sediment transport risk at the site and on the receiving waters risk during periods of soil exposure (e.g., grading and site stabilization). The sediment risk level reflects the relative amount of sediment that has the potential to be discharged to receiving water bodies and is based on the nature of the construction activities and the location of the site relative to receiving water bodies. The receiving-waters risk level reflects the risk to the receiving waters from the sediment discharge. Depending on the risk level, the construction projects could be subject to the following requirements:

- Effluent standards.
- Good site management "housekeeping."
- Non-stormwater management.
- Erosion and sediment controls.
- Run-on and runoff controls.
- Inspection, maintenance, and repair.
- Monitoring and reporting requirements.

The Construction General Permit requires the development and implementation of a storm water pollution prevention plan (SWPPP) that includes specific best management practices (BMPs) designed to prevent sediment and other pollutants from contacting stormwater from moving off-site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management, and good housekeeping and are intended to protect surface water quality by preventing eroded soil and construction-related pollutants from migrating off-site. The Construction General Permit requires routine inspection of all BMPs. Additionally, 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 CWA Section 303(d) list for sediment.

The SWPPP must be prepared before construction begins. The SWPPP must list BMPs and the placement of those BMPs that the applicant would use to protect stormwater runoff. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants, to be implemented should any BMPs fail; and a sediment monitoring plan if the site discharges directly to a water body listed on the CWA Section 303(d) list for sediment. Examples of typical construction BMPs include scheduling or limiting certain activities to dry periods, installing sediment barriers such as a silt fence and fiber rolls, and maintaining equipment and vehicles used for construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations and vehicle and equipment washing and fueling. The Construction General Permit also sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from the site after construction).

In the Project area, the Construction General Permit is implemented and enforced by the San Francisco Bay Regional Water Quality Control Board, which administers the stormwater permitting program. Dischargers are to notify the San Francisco Bay Regional Water Quality

Control Board of violations or incidents of noncompliance and submit annual reports that identify deficiencies in the BMPs and explain how the deficiencies were corrected. The risk assessment and SWPPP must be prepared by a State Qualified SWPPP Developer and implementation of the SWPPP must be overseen by a State Qualified SWPPP Practitioner.

California Environmental Quality Act

CEQA requires that public agencies and private interests identify the potential environmental consequences of their projects on any object or site of significance to the scientific annals of California (Public Resources Code Division I, Section 5020.1[b]). Appendix G of the CEQA Guidelines provides an Environmental Checklist of questions that includes the following: "Would the project directly or indirectly destroy a unique paleontological resource or site?"

CEQA does not define a "unique paleontological resource or site." However, the Society of Vertebrate Paleontology has provided guidance specifically designed to support state and federal environmental review. The Society of Vertebrate Paleontology broadly defines *significant paleontological resources* as follows (SVP 2010):

> *[F]ossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).*

Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, or diagnostically important, or are common but have the potential to provide valuable scientific information for evaluating evolutionary patterns and processes, or which could improve researchers' understanding of paleochronology, paleoecology, or depositional histories. New or unique specimens can provide new insights into evolutionary history; however, additional specimens of even well-represented lineages can be equally important for studying evolutionary pattern and process, and evolutionary rates. Even unidentifiable material can provide useful data for dating geologic units if radiocarbon dating is possible. As such, common fossils (especially vertebrates) may be scientifically important, and therefore considered significant.

California Public Resources Code Section 5097.5

Public Resources Code Section 5097.5 states the following:

> *No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological, or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.*

As used in Section 5097.5, *public lands* are defined as lands owned by, or under the jurisdiction of, the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, public agencies are required to comply with Public Resources Code Section

5097.5 for their own activities, including construction and maintenance, and for permit actions (e.g., encroachment permits) undertaken by others.

3.7.2.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to geology, soils, and paleontological resources that would otherwise be relevant to the Project and alternatives are described below.

Envision San José 2040 General Plan

The Envision San José 2040 General Plan(City of San José 2024) includes the following policies related to geology, soils, and paleontological resources that are relevant to the Project:

> ***Policy ER-10.1*:** For proposed development sites that have been identified as archaeologically or paleontologically sensitive, require investigation during the planning process in order to determine whether potentially significant archeological or paleontological information may be affected by the project and then require, if needed, that appropriate mitigation measures be incorporated into the project design.
>
> ***Policy ER-10.3*:** Ensure that City, State, and Federal historic preservation laws, regulations, and codes are enforced, including laws related to archaeological and paleontological resources, to ensure the adequate protection of historic and pre-historic resources.
>
> ***Policy EC-4.2*:** Approve development in areas subject to soils and geologic hazards, including unengineered fill and weak soils and landslide-prone areas, only when the severity of hazards has been evaluated and if shown to be required, appropriate mitigation measures provided. New development proposed within areas of geologic hazards shall not be endangered by, nor contribute to, the hazardous conditions on the site or on adjoining properties. The City of San José Geologist will review and approve geotechnical and geological investigation reports for projects within these areas as part of the project approval process.
>
> ***Policy EC-4.3*:** Locate new public improvements and utilities outside of areas with identified soils and/or geologic hazards (e.g., deep-seated landslides in the Special Geologic Hazard Study Area and former landfills) to avoid extraordinary maintenance and operating expenses. Where the location of public improvements and utilities in such areas cannot be avoided, effective mitigation measures will be implemented.

Santa Clara County General Plan

The Santa Clara County General Plan (Santa Clara County 1994) includes the following policies related to geology, soils, and paleontological resources that are relevant to the Project:

> ***Policy R-GD 28*:** Due to the prevalence of steeply sloping land, geologic, seismic, and other natural hazards, soil characteristics, and other development issues, including the need for adequate access and on- site wastewater treatment, the County discourages development on slopes of 30% or greater and shall thoroughly evaluate development proposals on such steep slopes to secure the public health, safety, and welfare.

***Policy R-GD 29*:** Single building site approval on slopes of 30% or greater shall be evaluated and approved, conditionally approved, or denied by the Zoning Administrator or designated decision-making body. A public hearing shall be required, and notice provided to owners of all property within 300 feet of the subject property.

***Policy R-GD 30*:** In considering Building Site Approval applications for development on slopes of 30% or greater, the decision-maker shall base decisions on the following criteria and findings:

a) demonstrated conformance with all applicable standards and conditions of reviewing or responsible agencies;

b) successful integration of design solutions satisfying the requirements of responsible agencies and reviewers;

c) consideration and determination that the proposed use, structures, and related improvements cannot be located on portions of the lot with less average slope and/or generally better development suitability;

d) an overall site design, including but not limited to access road, retaining walls, architectural quality, landscaping, grading and erosion control, that is in harmony with the natural landscape, vegetation, and topography, and reasonably mitigates visual impacts of development.

***Policy R-RC 42*:** County government shall through its regulations and the design of public projects achieve soil conservation and minimize erosion.

***Policy R-RC 43*:** Large scale grading and clearing of land should not be allowed if it will significantly degrade valuable habitat or impair surface water quality.

***Policy R-RC 45*:** Use of off-road vehicles in areas of fragile soil and during the rainy season shall be discouraged.

***Policy R-HS 6*:** Inventories and mapping of natural hazards shall be adequately maintained for use in planning and decision-making, including:

a) Relative Seismic Stability Map;
b) Composite Geologic Hazards Map;
c) Soil Creep;
d) Saturated, Unstable Soils;
e) Slope Maps;
f) Flood Hazards maps;
g) Relative Fire Hazard Rating;
h) Dam Failure Inundation Areas maps;
i) Airport Safety Zones; and
j) closed Solid Waste Disposal Sites.

Flood Hazards mapping includes those required by AB 162 as developed from required sources, including FEMA flood maps, California Department of Water Resources (DWR), and the Santa Clara Valley Water District (SCVWD).

***Policy R-HS 16*:** No new building site shall be approved on a hazardous fault trace, active landslide, or other geologic or seismic hazard area that poses a significant risk.

***Policy R-HS 17*:** Subdivisions shall be designed to minimize placement of road and other improvements on unstable lands and shall demonstrate suitable, stable building sites approved by the County Geologist.

***Policy R-HS 18*:** Clustered development projects shall concentrate home sites on lands not subject to geologic or seismic hazards.

***Policy R-HS 19*:** In areas of high potential for activation of landslides, there shall be no avoidable alteration of the land or hydrology which is likely to increase the hazard potential, including: a. saturation due to drainage or septic systems; b. removal of vegetative cover; and c. steepening of slopes or undercutting the base of a slope.

***Policy R-HS 20*:** Lands where soils are in a continually saturated condition should not be used for structural purposes or filled with heavy earth fills due to their inherently weak and unstable nature. Uses requiring septic systems in such areas should not be allowed.

***Policy R-HS 21*:** Proposals involving potential geologic or seismic hazards shall be referred to the County Geologist for review and recommendations.

3.7.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility will be responsible for implementing its measures only to that part of the Project for which it will own or be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Chapter 2, Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.7.3.1 Applicant-Proposed Measures

LSPGC has developed Applicant-proposed measures (APMs) that are incorporated into LSPGC's components of the Project to reduce potential effects on geology, soils, and paleontological

resources. The following impact analysis assumes that LSPGC would implement the following APMs as part of its portion of work for the Project.

- **APM GEO-1: Geotechnical Studies and Geologic Hazard Reduction Measures.** The following measures shall be implemented during construction to minimize impacts from geological hazards and disturbance to soils:
  - Keep vehicle and construction equipment within the limits of the Project and in approved construction work areas to reduce disturbance to topsoil;
  - Geotechnical studies shall be completed to evaluate the risk of geologic hazards associated with the Proposed Project. The geotechnical studies shall provide geotechnical engineering recommendations relative to subsurface soil and rock conditions, groundwater conditions, lateral earth pressures, and seismic classifications of the Project area. Recommendations from the geotechnical studies shall be considered in the final design.
  - Avoid construction in areas with saturated soils, whenever practical, to reduce impacts to soil structure and allow safe access. Similarly, avoid topsoil salvage in saturated soils to maintain soil structure;
  - Keep topsoil material on-site in the immediate vicinity of the temporary disturbance or at a nearby approved work area to be used in restoration of temporary disturbed areas. Temporary disturbance areas shall be re-contoured following construction to match pre-construction grades. Areas shall be allowed to revegetate naturally or be reseeded with a native seed mix from a local source if necessary. On-site material storage shall be sited and managed in accordance with all required permits and approvals; and
  - Keep vegetation removal and soil disturbance to a minimum and limited to only the areas needed for construction. Removed vegetation shall be disposed of off-site to an appropriate licensed facility or can be chipped on-site to be used as mulch during restoration.
- **APM PALEO-1: Paleontological Mitigation Monitoring Plan (PRMMP).** Prior to the issuance of grading permits, a qualified paleontologist shall be retained to prepare and oversee the PRMMP for the Project. The PRMMP shall contain monitoring procedures, define areas and types of earthwork to be monitored, and provide methods for determining the significance of fossil discoveries. The PRMMP shall direct that a qualified paleontological monitor (working under the supervision of the qualified paleontologist) shall monitor all excavations or grading at depths exceeding seven feet below ground surface where potentially fossil-bearing alluvial deposits of Pleistocene age may be present. The duration and timing of paleontological monitoring shall be determined by the qualified paleontologist based on the grading plans and construction schedule and may be modified based on the initial results of monitoring. The PRMMP shall state that any fossils that are collected shall be prepared to the point of curation, identified to the lowest reasonable taxonomic level, and curated into a recognized professional repository (e.g., San Diego Natural History Museum, University of California Museum of Paleontology), along with associated field notes, photographs, and compiled fossil locality data. The repository shall be contracted prior to the start of earthwork to curate and store any discovered and recovered fossils. Such an institution shall be a recognized paleontological specimen repository with a permanent curator, such as a museum or university. Donation of the fossils shall be accompanied by financial support for initial specimen curation and storage.

  Following the completion of the above tasks, the qualified paleontologist shall prepare a final mitigation report that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and

significance of recovered fossils. The report shall be submitted to appropriate agencies, as well as to the designated repository.

- **APM PALEO-2: Paleontological Resources Findings.** If paleontological resources are encountered during ground-disturbing activities when the qualified paleontologist or paleontological monitor is not on-site (an inadvertent discovery), earthwork within the vicinity of the discovery shall immediately halt, and the qualified paleontologist shall evaluate the significance of the fossil discovery. If the fossil discovery is deemed significant, the fossil shall be recovered using appropriate recovery techniques based on the type, size, and mode of preservation of the unearthed fossil. Earthwork may resume in the area of the fossil discovery once the fossil has been recovered and the qualified paleontologist deems the discovery site has been mitigated to the extent necessary.

3.7.3.2 PG&E Best Management Practices and Field Protocols

PG&E has developed BMPs and field protocols (FPs) that are incorporated into PG&E components of the proposed Project. The following impact analysis assumes that PG&E would implement the following BMPs as part of its portion of work for the Project.

- **PG&E BMP PALEO-1: Unanticipated Paleontological Discoveries.** If significant paleontological resources are discovered during construction activities, work will stop within 50 feet and the PG&E cultural resources specialist (CRS) will be contacted immediately. The CRS will work with the qualified paleontologist to evaluate the discovery. If the discovery is determined to be significant, PG&E will implement measures to protect and document the paleontological resource. Work may not resume within 50 feet of the find until approval by the CRS in coordination with the paleontologist. In the event that significant paleontological resources are encountered during the project, protection and recovery (if feasible and safe) of those resources may be required. Treatment and curation of fossils will be conducted in consultation with the landowner, PG&E, and CPUC. The paleontologist will be responsible for developing the recovery strategy and will lead the recovery effort, which will include establishing recovery standards, preparing specimens for identification and preservation, documentation and reporting, and securing a curation agreement from the approved facility.

3.7.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant geology and soils impact if it would do any of the following:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
   i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.
   ii) Strong seismic ground shaking.
   iii) Seismic-related ground failure, including liquefaction.
   iv) Landslides.
b) Result in substantial soil erosion or the loss of topsoil.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

d) Be located on expansive soil[1] creating substantial direct or indirect risks to life or property.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

3.7.5 Direct and Indirect Effects

3.7.5.1 Approach to Analysis

This environmental analysis of the potential impacts related to geology, soils, and paleontological resources is based on a review of literature and database research (e.g., geologic, seismic, and soils reports and maps). The Project would be regulated by the various laws, regulations, and policies summarized in Section 3.7.2, *Regulatory Setting*. This analysis assumes that the Project would comply with applicable local, state, and federal laws and regulations. This analysis also assumes that local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Compliance with many of the regulations is a condition of permit approval.

After considering the Project's construction, operation, and maintenance, as described in Chapter 2, and compliance with the required regulatory requirements, the following environmental analysis identifies whether the Project, as proposed, would exceed the defined significance thresholds and whether a significant impact would occur. For those impacts considered to be significant, mitigation measures are proposed to the extent feasible to reduce the identified impacts.

The Project's structural components would undergo appropriate design-level geotechnical evaluations before final design and construction. The Project engineers and building officials are responsible for implementing the regulatory requirements in the CBC and APM GEO-1, helping to ensure that all buildings and structures are constructed in compliance with the law. The geotechnical engineer, as a registered professional with the State of California, is required to comply with the CBC and local codes while applying standard engineering practice and the appropriate standard of care for the particular region in California.[2] The California Professional Engineers Act (Building and Professions Code Sections 6700–6799) and the Codes of Professional Conduct, as administered by the California Board of Professional Engineers and Land Surveyors, provide the basis for regulating and enforcing engineering practices in California. Local building officials, typically with the local jurisdiction, are responsible for inspections and helping to ensure CBC compliance before approval of the building permit.

[1] The CBC no longer includes a Table 18-1-B. Instead, CBC Section 1803.5.3 describes the criteria for analyzing expansive soils.

[2] A geotechnical engineer specializes in the structural behavior of soil and rocks. Geotechnical engineers conduct soil investigations, determine soil and rock characteristics, provide input to structural engineers, and provide recommendations to address problematic soils.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.7.5.2 Impact Assessment

Criterion a.i) Whether the Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.

Impact 3.7-1a: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (*Less than Significant*)

The Project is not located on a designated Alquist-Priolo Earthquake Fault Zone, on a known, active earthquake fault. The nearest Alquist-Priolo Earthquake Fault Zone is the Hayward fault zone, located approximately 2 miles east of the Project area. However, portions of the existing PG&E Metcalf Substation are located in a County-identified fault rupture hazard zone, and construction or operation of the Project could therefore be located in a known fault zone. Thus, there could be a potentially significant impact related to this criterion.

The Project would be subject to the design criteria of CPUC General Orders 95 and 128 and the CBC, which require that all improvements be constructed to withstand or mitigate risks associated with fault rupture from regional fault sources. All construction would adhere to the specifications, procedures, and site conditions contained in the final design plans, which would comply with the seismic recommendations of a California-registered, professional geotechnical engineer. LSPGC would ensure that the Project facilities, including the transmission lines, would be engineered to avoid, withstand, or mitigate the effects of predicted fault rupture and would consider the relevant seismic requirements included in the geotechnical studies, as required by **APM GEO-1: Geotechnical Studies and Geologic Hazard Reduction Measures**. Further, the Project would not include habitable structures.

With adherence to all applicable regulations and implementation of APM GEO-1, there would be minimal risk of loss, injury, or death involving rupture of a known earthquake fault, and therefore, this impact would be **less than significant**.

Mitigation: None required.

Criterion a.ii) Whether the Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.

Impact 3.7-1b: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. (*Less than Significant*)

The Project would be subject to moderate to severe seismic ground shaking given the relatively close proximity to multiple active fault zones, as indicated in Table 3.7-1. These fault zones include the Hayward fault zone, located approximately 2 miles east of the Project area. Ground shaking could result in damage to the Project through seismic shaking or seismically induced ground failure. Thus, there could be a potentially significant impact related to this criterion.

The Project would be subject to the seismic design criteria of CPUC General Orders 95 and 128 and the CBC, which require that all improvements be constructed to withstand anticipated ground shaking from regional fault sources. All construction would adhere to the specifications, procedures, and site conditions contained in the final design plans, which would comply with the seismic recommendations of a California-registered, professional geotechnical engineer. All underground transmission lines, such as the proposed Grove to Skyline 320 kV Transmission Line and the proposed Metcalf to Grove 500 kV Transmission Line, would be designed and constructed in compliance with General Order 128, which governs the construction of underground transmission lines. The proposed Skyline to San Jose B 230 kV Transmission Tie Line would be constructed in accordance with CPUC General Order 95. LSPGC would ensure that the Project facilities, including the transmission lines, would be engineered to withstand predicted ground shaking and would consider the relevant seismic requirements included in the geotechnical studies, as required by APM GEO-1. Further, the Project would not include habitable structures.

With adherence to all applicable regulations and implementation of APM GEO-1, there would be minimal risk of loss, injury, or death involving strong seismic ground shaking. Therefore, the impacts would be **less than significant**.

Mitigation: None required.

Criterion a.iii) Whether the Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.

Impact 3.7-1c: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. (*Less than Significant*)

The Project area is located in a California Geologic Survey liquefaction zone, which is defined as an area where historical occurrence of liquefaction, or local geological, geotechnical, and ground

water conditions indicate a potential for ground displacements. Therefore, the Project area could be at risk for settlement, lateral spreading, and damage to structures.

As discussed in Impact 3.7-1a, the Project would be subject to the seismic design criteria of CPUC General Orders 95 and 128 and the CBC, which require that all improvements be constructed to withstand anticipated ground shaking from regional fault sources. All Project underground transmission lines would be designed and constructed in compliance with General Order 128, which governs the construction of underground transmission lines. LSPGC would ensure that all overhead transmission lines (e.g., Skyline to San Jose B 230 kV Transmission Tie Line) would be engineered to withstand predicted ground shaking and would consider the relevant seismic requirements included in the geotechnical studies, as required by APM GEO-1. Furthermore, under APM GEO-1, during Project construction, contractors would be required to avoid construction in areas with saturated soils, to reduce impacts on soil structure and allow safe access, and to avoid topsoil salvage in saturated soils to maintain soil structure.

With adherence to all the applicable seismic recommendations of a California-registered, professional geotechnical engineer and the implementation of APM GEO-1, the Project would have a **less-than-significant** impact on the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.

Mitigation: None required.

Criterion a.iv) Whether the Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

Impact 3.7-1d: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. (*Less than Significant*)

The majority of the Project area consists of gently sloping (0–2 percent) topography along the Santa Clara Valley floor and is not located directly near any significant slopes. However, areas prone to landslides can be found in the foothill and mountain areas, including areas of the Project located near the Coyote Creek Parkway, adjacent to U.S. Highway 101 (USGS 2025a). These areas prone to landslides include the existing PG&E Metcalf Substation, the proposed Grove HVDC Terminal, portions of the proposed Metcalf to Grove 500 kV Transmission Line, and the proposed Grove to Skyline 320 kV Transmission Line. Although portions of the Project area are susceptible to landslides, no instances of landslides have been documented in the Project area. During a seismic event, however, there would still be potential for Project components to be affected by landslides.

Before construction, LSPGC would be required to conduct a site-specific geotechnical investigation, as required by APM GEO-1. LSPGC would adhere to all applicable seismic recommendations outlined in the site-specific geotechnical investigation. Further, the Project would adhere to all state and federal regulations, including CPUC General Orders 95 and 128 and

the CBC. All excavations and trenching would be designed and constructed in accordance with U.S. Occupational Safety and Health Administration regulations.

Therefore, while portions of the Project would be located on areas with susceptibility to landslides, the Project would adhere to all applicable regulations and would implement APM GEO-1. For these reasons, there would be minimal risk of loss, injury, or death involving landslides and this impact would be **less than significant**.

Mitigation: None required.

Criterion b) Whether the Project would result in substantial soil erosion or the loss of topsoil.

The Project's operation and maintenance would not require any substantial earthwork. During post-construction, any disturbed areas would be restored to pre-construction conditions. Restoration could include recontouring, reseeding, and planting replacement vegetation, as appropriate. Erosion control measures may be required and would also be implemented in accordance with the Project's SWPPP and APMs. Therefore, there would be no impact on soil erosion or topsoil loss during Project operation and maintenance. (*No Impact*)

Impact 3.7-2: Project construction would not result in substantial soil erosion or the loss of topsoil. (*Less than Significant*)

Construction

As discussed in Section 3.7.1, *Environmental Setting*, soils in the Project area have a low-to-moderate susceptibility to erosion. During construction, activities such as trenching, vegetation removal, grading, and the use of heavy equipment could exacerbate existing risks of soil erosion. Project activities that would expose soil include trenching to install the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV Transmission Line, proposed modifications to the PG&E Metcalf Substation and the PG&E San Jose B Substation, construction of the proposed Skyline and Grove HVDC Terminals, and drilling/excavating for the installation of poles. For example, the Project would use horizontal bore (jack-and-bore or micro-tunnel) or horizontal directional drilling (HDD) construction techniques to install conduit ducts where open-cut trenching is not feasible. Earthwork associated with the Project would require cut and fill, and excess material after completion of grading and excavation would be approximately 143,000 cubic yards. During trenching excavations, minimal excavated material would be used to backfill, with most of the excavated material not being reused. Thus, Project construction could result in substantial soil erosion or the loss of topsoil.

Soils in the Project area have various levels of susceptibility to erosion or the loss of topsoil, which could result in substantial soil erosion of loss of topsoil. However, because construction would occur in an area exceeding one acre, the Project would be required to comply with the Construction General Permit, described under *National Pollutant Discharge Elimination System Construction General Permit* within Section 3.7.2.2, *State*. Compliance with the Construction General Permit would help ensure that the Project would manage stormwater to protect water quality and would include both erosion control measures for construction sites and post-

construction requirements. The Construction General Permit requires a project proponent to prepare and implement a SWPPP that identifies BMPs to control stormwater from construction work sites and to prevent sediment and other pollutants from moving off-site. The SWPPP BMPs may include but are not limited to the following measures:

- Physical barriers to prevent erosion and sedimentation.
- Construction of sedimentation basins.
- Limitations on work periods during storm events.
- Use of infiltration swales.
- Protection of stockpiled materials.
- Other measures identified by a State Qualified SWPPP Developer that would substantially reduce or prevent erosion from occurring during construction.

Additionally, LSPGC would implement APM GEO-1 to minimize disturbed areas, restricting them to only those needed for construction. APM GEO-1 would also require a site-specific geotechnical investigation, which would include site-specific measures to reduce geologic hazards such as erosion. Furthermore, the Project design would include various erosion protection measures, including storm drain protection and the installation of wattles/silt fences during horizontal bore or HDD construction activities. With the implementation of a SWPPP, APM GEO-1, and integrated erosion control design measures, the Project would have a **less-than-significant** impact on soil erosion or the loss of topsoil.

Mitigation: None required.

Criterion c) Whether the Project would 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 3.7-3: The Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. (*Less than Significant*)

Portions of the Project are proposed in areas of known landslide risk. However, as discussed in Impact 3.7-1d, the Project would have a less-than-significant impact related to landslide risk with the implementation of APM GEO-1 and adherence to all state and federal regulations, including CPUC General Orders 95 and 128 and the CBC.

As discussed in Section 3.7.1, the Project would be in an area of known subsidence. Shallow groundwater is present on-site, and the Project may require dewatering if groundwater is encountered during Project construction. The Project is also located in an area with soils that are at a high risk of liquefaction, lateral spreading, and collapse. Therefore, Project implementation may result in a potentially significant impact associated with on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

LSPGC would implement APM GEO-1, which would require site-specific geotechnical investigations. These geotechnical studies would detail specific locations of unstable geologic units and would propose design, avoidance, or minimization recommendations to reduce the risk of geologic instability. Project construction would also adhere to applicable codes and regulations, such as CPUC General Orders 95 and 128, the CBC, and California Division of Occupational Safety and Health (Cal/OSHA) requirements for excavation, trenching, and earthwork.

Implementing the recommendations in the geotechnical reports and adhering to the excavation safety requirements specified in CPUC General Orders 95 and 128, the CBC, and Cal/OSHA Construction Safety Orders, in addition to implementing APM GEO-1, would help ensure that any unstable soils or geologic units would be addressed. Therefore, although the Project could be located on a geologic unit or soil that is unstable, the impact related to subsidence, liquefaction, lateral spreading, and collapse would be **less than significant**.

Mitigation: None required.

Criterion d) Whether the Project would be located on expansive soil creating substantial direct or indirect risks to life or property.

Impact 3.7-4: The Project would not be located on expansive soil creating substantial direct or indirect risks to life or property. (*Less than Significant*)

Construction

As described in Section 3.7.1, soil underlying the Project area is potentially expansive or highly expansive. Expansive soils are prone to large volume changes (shrinking and swelling) directly related to changing moisture conditions, and such soils could potentially risk life or property.

Before construction, LSPGC would be required to implement APM GEO-1, which would require a site-specific geotechnical investigation. These geotechnical studies would detail specific locations of expansive soils and would propose design, avoidance, or minimization recommendations to reduce the risks of expansive soils. Recommendations could include removal or treatment (e.g., lime treatment). Furthermore, the Project would be subject to all applicable state and federal codes, such as CPUC General Orders 95 and 128, the CBC, and Cal/OSHA Construction Safety Orders. Additionally, the Project would not reuse most of the excavated soil during construction, which would reduce impacts related to the use of expansive soil on-site.

Although the Project would be located on expansive soil, the implementation of LSPGC APM GEO-1 and adherence to applicable regulations and design standards would help ensure that impacts associated with expansive soil would be **less than significant**.

Mitigation: None required.

Criterion e) Whether the Project would 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.

The Project would not 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 Project would not require the construction or use of wastewater disposal systems. During construction, portable toilets would be used. Operation and maintenance would also not require the construction of any septic tanks or alternative wastewater disposal systems, given that operation and maintenance would be conducted either remotely or on an as-needed basis. Therefore, there would be no impact associated with septic tanks or alternative wastewater disposal systems.

Criterion f) Whether the Project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

Project operation and maintenance would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature. Project operation and maintenance would not include routine activities that would require excavation. Therefore, there would be no risk of disrupting any previously undisturbed paleontological resources, and there would be no impact during operation and maintenance of the Project. (*No Impact*)

Impact 3.7-5: Project construction would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*Less than Significant)*

Excavations within artificial fill and within the Coast Range Ophiolite complex have no potential to encounter paleontological resources and would not impact paleontological resources. The Holocene-age sedimentary deposits present at the surface of the Project area are assigned a low paleontological potential but are likely to transition to Pleistocene-age alluvial deposits as shallow as seven feet below ground surface, which have a high paleontological potential. Although there are geologic units with high paleontological potential mapped within 1 mile of the Project, the Project limits of construction would be entirely within surface geologic units with no or low paleontological potential. However, although the Project is located in an area of low paleontological potential, grading or excavation for Project components could directly or indirectly destroy paleontological resources, if present.

To reduce/avoid construction-related impacts associated with a unique paleontological resource or site or unique geologic feature, LSPGC would implement **APM PALEO-1: Paleontological Mitigation Monitoring Plan (PRMMP)** and **APM PALEO-2: Paleontological Resources Findings**. As required by APM PALEO-1, a qualified paleontologist would be required to outline a Paleontological Mitigation Monitoring Plan, including monitoring procedures during earthwork and all excavations or grading at depths exceeding seven feet below ground surface. APM

PALEO-2 stipulates procedures to implement if paleontological resources are encountered during ground-disturbing activities.

During construction of the PG&E substations modifications, PG&E would implement **PG&E BMP PALEO-1: Unanticipated Paleontological Discoveries**. PG&E BMP PALEO-1 would require that specific protocol be implemented if there is an unanticipated paleontological discovery during Project construction.

With the incorporation of LSPGC APM PALEO-1, LSPGC APM PALEO-2, and PG&E BMP PALEO-1, impacts related to paleontological resources would be reduced as the combination of measures would ensure proper implementation procedures during construction, notably measures to follow if paleontological resources are encountered during Project construction. For these reasons, impacts related to this criterion would be **less than significant**.

Mitigation: None required.

3.7.6 Cumulative Effects Analysis

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to geology, soils, and paleontological resources could occur if the incremental impacts of the Project would combine with the incremental impacts of one or more cumulative projects.

The geographic area affected by the Project and its potential to contribute to cumulative impacts vary based on the environmental resource under consideration. The geographic scope of the analysis for cumulative geology, soils, and paleontology impacts encompasses and is limited to the Project area and the immediately adjacent areas. This is because impacts related to geology, soils, and paleontology are generally site-specific and depend on the nature and extent of the geologic hazard or resource, and on existing and future soil and groundwater conditions. For example, the effect of erosion would tend to be limited to the localized area of a project and could have a cumulative effect only if erosion would occur as the result of two or more adjacent projects that overlap spatially.

The time frame during which the Project could contribute to cumulative geology and soils effects is during its construction and operational phases. For the Project, the operational phase is considered permanent. Therefore, similar to the geographic limitations discussed above, it should be noted that impacts related to geology, soils, and paleontology are generally time-specific. The effects could be cumulative only if two or more projects would occur at the same time and overlap at the same location.

Table 3.0-1 in Section 3.0 lists past, present, and reasonably foreseeable future projects in the vicinity of the Project. As identified in Table 3.0-1 and shown in Figure 3.0-1a and 3.0-1b, there are several cumulative projects adjacent to the Project, therefore, the effects of this cumulative project could occur in the same vicinity and at the same time as the effects of the Project.

3.7.6.1 Criterion a.i)

Impact C.3.7-1a: The Project, in combination with the cumulative projects, would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (*Less than Significant*)

As discussed above, the Project is not located on a designated Alquist-Priolo Earthquake Fault Zone, on a known, active earthquake fault. However, portions of the existing PG&E Metcalf Substation are located in a County-identified fault rupture hazard zone, as well as two of cumulative projects including the Vasona – Metcalf 230 kV Line Limiting Elements Removal project (cumulative project number 76) and the California High Speed Rail (CHSR) – San José to Merced Section project (cumulative project number 77). While the Project is anticipated to have a less-than-significant impact to this criterion, in the event involving rupture of a known earthquake fault, the Project, in combination with the cumulative projects, could produce a cumulatively considerable significant impact.

However, like the Project, the cumulative projects would be subject to applicable design criteria, for example, the CBC, which require that all improvements be constructed to withstand or mitigate risks associated with fault rupture from regional fault sources. As it pertains to each projects' type of development and associated design and safety criteria, all construction would adhere to the specifications, procedures, and site conditions contained in the final design plans, which would comply with the seismic recommendations of a California-registered, professional geotechnical engineer. LSPGC would implement APM GEO-1, which would ensure that the Project facilities, including the proposed transmission lines, would be engineered to avoid, withstand, or mitigate the effects of predicted fault rupture and would consider the relevant seismic requirements included in the geotechnical studies. As these projects are likely to undergo environmental review, construction of the Vasona – Metcalf 230 kV Line Limiting Elements Removal project and the California High Speed Rail (CHSR) – San José to Merced Section project are expected to also have standard construction measures to minimize substantial adverse effects.

Therefore, with adherence to all applicable regulations and design standards, and LSPGC's implementation of APM GEO-1, the incremental impacts of the Project combined with cumulative project impacts, would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. Therefore, this cumulative impact would be **less than significant**.

3.7.6.2 Criterion a.ii)

Impact C.3.7-1b: The Project, in combination with the cumulative projects, would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. (*Less than Significant*)

As discussed in Impact 3.7-1b, the Project and the cumulative projects are in the vicinity of multiple active fault zones, such as the Hayward fault zone, and could experience damage through seismic

shaking or seismically induced ground failure; therefore, impacts could be potentially significant. As such, the Project could have a cumulatively considerable impact related to this criterion.

However, the Project and cumulative projects would be subject to applicable seismic design criteria and are anticipated to be engineered to withstand strong seismic ground shaking. For example, the Project and cumulative projects would be required to comply with the applicable provisions of the CBC and local jurisdictions' codes. As explained in Section 3.7.2, the purpose of the CPUC General Orders 95 and 128, the CBC, and local codes is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures. All projects would be required to undergo a geotechnical investigation to identify and provide recommendations to address any seismic risks. Further, LSPGC would implement APM GEO-1, which would minimize impacts from geological hazards and disturbance to soils, as outlined in Section 3.7.3.1.

Based on compliance with applicable regulatory requirements and APM GEO-1, the incremental impacts of the Project combined with cumulative project impacts, would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death related to strong seismic ground shaking. Therefore, this cumulative impact would be **less than significant.**

Mitigation: None required.

3.7.6.3 Criterion a.iii)

Impact C.3.7-1c: The Project, in combination with the cumulative projects, would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. (*Less than Significant*)

As discussed in Impact 3.7-1b, the Project is proposed in a California Geological Survey liquefaction zone, where groundwater is very shallow; therefore, the cumulative projects would also be located in the same zone. Thus, there could be cumulatively considerably risk for settlement, lateral spreading, and damage to structures due to seismic-related ground failure.

However, as noted Impact C.3.7-1b, the Project and cumulative projects would be required to comply with applicable seismic design criteria and are anticipated to be engineered to withstand potential liquefaction events. Electrical power projects, including the Project, would also be required to comply with CPUC General Order 95 and 128. Compliance with these requirements would reduce the potential for impacts. As explained in Section 3.7.2, the purpose of CPUC General Order 95 and 128, the CBC, and local building codes are to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures. By design, compliance with these regulations is intended to reduce the cumulative risk from buildings and structures. All projects would be required to undergo a geotechnical investigation to identify and provide recommendations to address any seismic-related risks, including liquefaction. Further, LSPGC would implement APM GEO-1, which would minimize impacts from geological hazards and disturbance to soils, as outlined in Section 3.7.3.1.

Based on compliance with these requirements, the incremental impacts of the Project combined with cumulative project impacts, would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death related to liquefaction. Therefore, this cumulative impact would be **less than significant**.

Mitigation: None required.

3.7.6.4 Criterion a.iv)

Impact C.3.7-1d: The Project, in combination with the cumulative projects, would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. (*Less than Significant*)

The Project and cumulative projects are located in a region consisting of gently sloping (0-2 percent) topography along the Santa Clara Valley floor, and not located directly near any significant slopes. The Project and cumulative projects would not be located in an area of high landslide susceptibility or adjacent to any historical landslides, as indicated by the U.S. Landslide Inventory and Susceptibility Database. Thus, landslides are not expected to occur in the immediate vicinity of the cumulative projects.

LSPGC would implement APM GEO-1 and would comply with all applicable federal and state regulations, including General Order 95 and 128, and the CBC. All Project components would be designed and constructed in accordance with Cal/OSHA regulations. Based on compliance with these requirements, the incremental impacts of the Project combined with cumulative projects impacts would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death related to landslides. Therefore, this cumulative impact would be **less than significant**.

Mitigation: None required.

3.7.6.5 Criterion b)

As discussed above, Project operations would not require any substantial earthwork, and any areas disturbed during Project construction would be restored to pre-construction conditions. Therefore, Project operations would not contribute to cumulative effects related to this criterion and are not discussed further in a cumulative context. (*No Impact*)

Impact C.3.7-2: Project construction, in combination with the cumulative projects, would not result in substantial soil erosion or the loss of topsoil. (*Less than Significant*)

As discussed above, the soils along the Project have a low-to-moderate susceptibility to erosion. During Project construction, activities such as trenching, vegetation removal, grading, and the use of heavy equipment could exacerbate existing risks of soil erosion. Therefore, cumulative projects that would also require similar construction activities and equipment may potentially result in substantial soil erosion or loss of topsoil in the event that a considerable number of construction activities/schedules overlap in the same geographic area and timeframes.

However, Project construction would be required to comply with the Construction General Permit, which would help ensure that the Project would manage stormwater to protect water quality and would include both erosion control measures for construction sites and post-construction requirements, including preparation of a SWPPP, as described above. Those cumulative projects exceeding one acre in surface would be also required to comply with their respective Construction General Permits. In addition, LSPGC would implement APM GEO-1, which would minimize disturbed areas to only those needed for construction and would require a site-specific geotechnical investigation, including site-specific measures to reduce geologic hazards such as erosion. The combination of compliance with the requirements of the Construction General Permit and implementation of APM GEO-1 would reduce the Project's impact to less than cumulatively considerable. Therefore, this cumulative impact would be **less than significant**.

Mitigation: None required.

3.7.6.6 Criterion c)

Impact C.3.7-3: The Project, in combination with the cumulative projects, would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the projects, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. (*Less than Significant*)

As noted in Impact 3.7-3, portions of the Project are located in areas of known landslide risk. Further, portions of the Project would be located areas with soils at a risk of liquefaction, lateral spreading, and collapse. Since there are cumulative projects that are also located in these areas, the Project and the cumulative projects would have potential to result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, which could be cumulatively significant as it relates to this criterion. For example, shallow groundwater is present on-site, and the Project may require dewatering if groundwater is encountered during Project construction. Similarly, the cumulative projects may also require dewatering if groundwater is encountered during construction.

As provided above, the Project and cumulative projects would be expected to adhere to applicable codes and regulations such as CPUC General Orders 95 and 128, the CBC, and the Cal/OSHA requirements for excavation, trenching, and earthwork. LSPGC would also implement APM GEO-1, which would require site-specific geotechnical investigations. These geotechnical studies would detail specific locations of unstable geologic units and would propose design, avoidance, or minimization recommendations to reduce risk of geologic instability.

Implementing the recommendation of the geotechnical report and excavation safety requirements specific in CPUC General Orders 95 and 128, the CBC, and Cal/OSHA shoring requirements would ensure that any unstable soils or geologic units would be addressed. Therefore, although, the Project would be located on a geologic unit or soil that is unstable, this cumulative impact would be **less than significant**.

Mitigation: None required.

3.7.6.7 Criterion d)

Impact C.3.7-4: The Project, in combination with the cumulative projects, would not be located on expansive soil creating cumulatively substantial direct or indirect risks to life or property. (*Less than Significant*)

The soil underlying the Project area is potentially expansive, or highly expansive. It is likely the cumulative projects would also have underlying soil that is potentially or highly expansive. As discussed above, the Project and cumulative projects would be subject, as applicable, to state and federal codes, such as CPUC General Orders 95 and 128, the CBC, and Cal/OSHA Construction Safety Orders. Further, LSPGC would implement APM GEO-1, which would detail the specific locations of expansive soils and would include design, avoidance, or minimization recommendations to reduce the risks of expansive soils. Because the Project would comply with the regulatory requirements outlined under Section 3.7.2, the Project's impact would not be cumulative considerable, and this cumulative impact would be **less than significant**.

Mitigation: None required.

3.7.6.8 Criterion e)

The Project would not be constructed in 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. Therefore, the Project would not contribute to cumulative effects related to this criterion and are not discussed further in a cumulative context. (*No Impact*)

3.7.6.9 Criterion f)

Project operations would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Also, Project operations would not include routine activities that would require excavation. Therefore, Project operations would not contribute to cumulative effects related to this criterion and are not discussed further in a cumulative context. (*No Impact*)

Impact C.3.7-5: Project construction, in combination with the cumulative projects, would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*Less than Significant*)

As discussed in Impact 3.7-5, there are geologic units with high paleontological 1 mile of the Project, thus, adjacent cumulative projects may also be in the vicinity of high paleontological potential. However, as also stated above, the Project's limits of construction would be entirely within surface geologic units with no or low paleontological potential. Although the Project would be in an area of low paleontological potential, grading or excavation for the Project, in combination with similar and overlapping construction activities for the cumulative projects, could directly or indirectly cumulatively destroy paleontological resources, if present.

With the Project's compliance with regulatory requirements combined with LSPGC's implementation of APM PALEO-1 and APM PALEO-2, construction of the Project would not cause a significant impact related to paleontological resources. Additionally, cumulative projects would be required to implement similar requirements and/or measures under the Paleontological

Resources Preservation Act of 2009 to reduce impacts on paleontological resources. Thus, the incremental impact of the construction of the Project would not be cumulatively considerable. For these reasons, construction of the Project, in combination with the cumulative projects, would not directly or indirectly destroy unique paleontological resources or site or unique geologic feature and there would be a **less-than-significant** cumulative impact.

Mitigation: None required.

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3.8 Greenhouse Gas Emissions

This section evaluates the potential for construction, operation, and maintenance of the Project to result in impacts related to greenhouse gas (GHG) emissions. For purposes of the evaluation of potential GHG emissions impacts, the *study area* is defined as the footprint of all Project components, including all areas of temporary and/or permanent ground disturbance in California within which the Project would be constructed and operated, as described in this section. The information and analysis presented are based in part on the GHG emissions calculations estimated on behalf of LSPGC for the Project, presented in **Appendix B**, *Air Quality, Greenhouse Gas, and Energy Calculation and Modeling Files*. The GHG emissions calculations were reviewed by Environmental Science Associates and were found to be adequate to include in this analysis.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to GHG emissions.

3.8.1 Environmental Setting

As indicated in Chapter 2, *Project Description*, the Project would include construction and operation of two new high-voltage direct current (HVDC) terminals, two new underground transmission lines, and one overhead transmission tie line; modifications of the existing PG&E Metcalf Substation; and expansion and modifications of the existing PG&E San Jose B Substation. Specifically, the Project includes the following primary components:

- Skyline HVDC Terminal
- Grove HVDC Terminal
- Grove to Skyline 320-kilovolt (kV) direct current transmission line (Grove to Skyline 320 kV Transmission Line)
- Metcalf to Grove 500 kV alternating current (AC) transmission line (Metcalf to Grove 500 kV Transmission Line)
- Skyline to San Jose B 230 kV AC transmission tie line (Skyline to San Jose B Transmission Tie Line)
- Modifications to the existing PG&E Metcalf Substation
- Expansion and modifications of the existing PG&E San Jose B Substation

3.8.1.1 Climate Science

The terms *global warming* and *climate change* are commonly used to describe the increase in the average temperature of the earth's near-surface air and oceans since the mid-20th century and related changes in global climate. Natural processes and human actions have been identified as affecting the climate. The Intergovernmental Panel on Climate Change has concluded that variations in natural phenomena, such as solar radiation and volcanoes, produced most of the

warming from pre-industrial times to 1950. However, increasing GHG concentrations in the atmosphere since the 19th century that have resulted from human activities, such as fossil fuel combustion, deforestation, and other activities, are believed to be a major factor in causing global climate change. GHGs in the atmosphere naturally trap heat by impeding the exit of solar radiation that is received by Earth and is reflected back into space—a phenomenon referred to as the *greenhouse effect*. Some GHGs occur naturally and are necessary for keeping Earth's atmosphere warm and its surface inhabitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have trapped solar radiation and reduced the amount of radiation that is reflected into space, which has intensified the natural greenhouse effect and resulted in an increase in global average temperature.

3.8.1.2 Greenhouse Gas Emissions

Carbon dioxide (CO_2), methane, nitrous oxide, sulfur hexafluoride, perfluorocarbons, and hydrofluorocarbons are the principal GHGs. When concentrations of these gases exceed historical concentrations in the atmosphere, the greenhouse effect is intensified. CO_2, methane, and nitrous oxide occur naturally and are also generated through human activity. CO_2 emissions are largely byproducts of fossil fuel combustion, whereas methane results from off-gassing, natural gas leaks from pipelines and industrial processes, and incomplete combustion associated with agricultural practices, landfills, energy providers, and other industrial facilities. Nitrous oxide emissions are also largely attributable to agricultural practices and soil management. Other human-generated GHGs include fluorinated gases, such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which have much higher heat absorption potential than CO_2 and are byproducts of certain industrial processes.

CO_2 is the reference gas for climate change, as it is the GHG emitted in the highest volume. The effect of each GHG on global warming is the product of the mass of its emissions and its global warming potential (GWP). GWP indicates the amount that a gas is predicted to contribute to global warming relative to the amount of warming predicted to be caused by the same mass of CO_2. For example, methane and nitrous oxide are substantially more potent GHGs than CO_2, with respective GWPs of 25 and 298 times those of CO_2, which has a GWP of 1 (CARB 2024a).

In emissions inventories, GHG emissions are typically reported as metric tons of CO_2 equivalent ($MTCO_2e$). CO_2e for a given GHG is calculated as the product of the mass emitted of a given GHG and its specific GWP. Methane and nitrous oxide have much higher GWPs than CO_2; however, CO_2 is emitted in higher quantities and accounts for the majority of GHG emissions in CO_2e, both from commercial developments and from human activities in general. The types of GHG emissions that are relevant to this analysis are described below.

Carbon Dioxide

Carbon dioxide is a naturally occurring gas that enters the atmosphere through both natural and anthropogenic (human) sources. Key anthropogenic sources include the burning of fossil fuels (e.g., oil, natural gas, and coal), solid waste, trees, wood products, and other biomass, as well as industrially relevant chemical reactions, such as those associated with manufacturing cement. CO_2 "sinks" include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution

and are two of the largest reservoirs of CO_2 sequestration. In other words, CO_2 is removed from the atmosphere when it is absorbed by plants and the ocean as part of the biological carbon cycle.

Methane

Methane, the main component of natural gas, is used for home heating and cooking and occurs naturally from decay of organic matter. Natural sources of methane include wetlands, permafrost, oceans, and wildfires. Anthropogenic sources include fossil fuel production, biomass burning, animal husbandry (fermentation during manure management), and landfills.

Nitrous Oxide

Nitrous oxide is a colorless gas produced by microbial processes in soil and water, including reactions that occur in nitrogen-rich fertilizers. In addition to agricultural sources, some industrial processes (i.e., nylon production, nitric acid production) emit nitrous oxide. Combustion processes emit primarily oxides of nitrogen (NO_X) composed of nitrogen dioxide and nitric oxide (i.e., NO). These are air quality pollutants but are not the same as nitrous oxide. Very small quantities of nitrous oxide may be formed during fuel combustion through the reaction of nitrogen and oxygen.

Sulfur Hexafluoride

Sulfur hexafluoride is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high-voltage equipment that transmits and distributes electricity. Sulfur hexafluoride emissions are long-lived and are more effective at trapping infrared radiation than an equivalent amount of CO_2.

3.8.1.3 Effects of Global Climate Change

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, uncertainties remain in scientific predictions of, for example, local effects of climate change; the occurrence, frequency, and magnitude of extreme-weather events; effects of aerosols; changes in clouds; shifts in the intensity and distribution of precipitation; and changes in oceanic circulation.

Because of the complexity involved and the inability to adequately model Earth's climate system in a sufficient resolution, the uncertainty surrounding climate change is dynamic and ever-changing with research. Nonetheless, the Intergovernmental Panel on Climate Change's Sixth Assessment Report states that the dominant cause of the warming observed since the mid-20th century is extremely likely to have been the anthropogenic increase in GHG concentrations mainly from the transportation and industrial sectors (IPCC 2022). The national academies of science from 80 countries have issued statements endorsing the consensus position that humans are the dominant cause of global warming that has occurred since the mid-20th century (Cook et al. 2016).

The *Fourth California Climate Change Assessment*, published in 2018, found that global climate change has had the following potential impact on California: loss of snowpack; sea level rise;

more extreme-heat days per year; more high-ozone days; more extreme forest fires; more severe droughts punctuated by extreme-precipitation events; increased erosion of California's coastlines and seawater intrusion into the Sacramento–San Joaquin Delta and associated levee systems; and increased pest infestation (OPR 2018; CNRA 2018). The report's findings are consistent with climate change studies published by the California Natural Resources Agency since 2009, starting with the *California Climate Adaptation Strategy* (CNRA 2009), published as a response to Governor's Executive Order S-13-2008. In 2014, the CNRA rebranded the first update of the 2009 adaptation strategy as the *Safeguarding California Plan* (CNRA 2014). The 2018 update to the *Safeguarding California Plan* identifies hundreds of ongoing actions and next steps that State agencies are taking to address climate impacts within a framework of 81 policy principles and recommendations (CNRA 2018).

In accordance with the 2009 *California Climate Adaptation Strategy*, the California Energy Commission was directed to develop a website on climate change scenarios and impacts that would be beneficial for local decision-makers. The website, known as Cal-Adapt, provides information on the projection of potential future climate scenarios, which consist of local average values for temperature, sea level rise, snowpack, and other data representative of a variety of models and scenarios, including potential social and economic factors. Below is a summary of some of the potential effects that could be experienced in California because of global warming and climate change.

Temperature Increase

The primary effect of the addition of GHGs to the atmosphere has been a rise in the average global temperature. The impact of human activities on global temperature is readily apparent in the observational record. In 2023, the contiguous U.S. observed an average annual temperature of 54.4 degrees Fahrenheit (°F), which is 2.4°F above the 20th century average (NOAA 2024). Of the 10 warmest years in the contiguous U.S., nine have occurred since 1998, with 2012 and 2016 being the two warmest years on record (USEPA 2024a). According to the Cal-Adapt website, Santa Clara County could experience an increase in annual-average maximum temperature of approximately 4.5°F to 7.4°F by 2070–2099, compared to the baseline period of 1961–1990 (Cal-Adapt 2025).

With climate change, extreme-heat conditions and heat waves are predicted to affect larger areas, last longer, and have higher temperatures. Heat waves, defined as 3 or more days with temperatures exceeding 90°F, are projected to occur more frequently by the end of the 21st century. Extreme-heat days and heat waves can negatively affect human health. A spectrum of illnesses can result from extreme heat, ranging from heat cramps to severe heat exhaustion and life-threatening heatstroke (RCCC 2019).

Wildfires

The hotter and drier conditions expected with climate change will make forests more susceptible to extreme wildfires. The *Fourth California Climate Change Assessment* found that if GHG emissions continue to rise, the frequency of extreme wildfires burning over approximately 25,000 acres would increase by nearly 50 percent by the year 2100, with the average area burned

statewide each year increasing by 77 percent. In the areas that have the highest fire risk, the cost of wildfire insurance is projected to rise by 18 percent by 2055 and the fraction of property insured would decrease (Westerling 2018).

Air Quality Degradation

Higher temperatures, conducive to the formation of air pollution, could worsen air quality in California and make it more difficult to achieve air quality standards. Climate change may increase the concentration of ground-level ozone, which can cause breathing problems, aggravate lung diseases such as asthma, emphysema, and chronic bronchitis, and cause chronic obstructive pulmonary disease; however, the magnitude of the effect—and therefore, its indirect effects—are uncertain. Emissions from wildfires can lead to excessive levels of particulate matter, ozone, and volatile organic compounds (NOAA 2022). Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (RCCC 2019).

Precipitation and Water Supply

The overall impact of global climate change on future water supplies in California is highly uncertain. Studies predicting the precise impacts of climate change on California's hydrology and water resources have shown considerable variability. Increasing uncertainty about the timing and intensity of precipitation will challenge the operational flexibility of California's water management systems, leading to difficulty in managing the state's water resources and to more frequent and severe droughts or floods. Warmer and wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff would occur at a time when some basins either are being recharged at their maximum capacity or are already full. Conversely, reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge (CNRA 2018).

Hydrology and Sea Level Rise

Climate change has the potential to affect the amount of snowfall, rainfall, and snowpack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high-tide and high-runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for saltwater intrusion. Sea level rise can be a product of global warming that occurs through two main processes: expansion of seawater as the oceans warm and the melting of ice over land. A rise in sea levels could cause coastal flooding and erosion and could jeopardize California's water supply.

Sea level has risen 8–9 inches since 1880. In 2023, global sea level set a new record high of 3.99 inches above 1993 levels. The rate of sea level rise is accelerating; it has more than doubled, from 0.06 inch (1.4 millimeters) per year throughout most of the 20th century to 0.14 inch (3.6 millimeters) per year from 2006 to 2015. In many locations along the U.S. coastline, high-tide flooding is now 300 percent to more than 900 percent more frequent than it was 50 years ago. Sea level could rise as much as 2 feet above 2000 levels by 2100 (Lindsey 2023). Rising seas could affect transportation infrastructure, utilities, and regional industries.

Ecosystems and Wildlife

Increases in global temperatures and the potential for resulting changes in weather patterns could have ecological effects on a global and local scale. Increased concentrations of GHGs are likely to accelerate the rate of climate change. As stated in the *Safeguarding California Plan* (CNRA 2018):

> *[S]pecies and ecosystems in California are valued both for their intrinsic worth and for the services they provide to society. Air purification, water filtration, flood attenuation, food provision, recreational opportunities such as fishing, hunting, wildlife viewing, and more are all services provided by ecosystems. These services can only be maintained if ecosystems are healthy and robust and continue to function properly under the impacts of climate change.*
>
> *A recent study examined the vulnerability of all vegetation communities statewide in California and found that 16 of 29 were highly or nearly highly vulnerable to climate change, including Western North American freshwater marsh, Rocky Mountain subalpine and high montane conifer forest, North American Pacific coastal salt marsh, and more.*

Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. With climate change, ecosystems and wildlife will be challenged by the spread of invasive species, barriers to species migration or movement in response to changing climatic conditions, direct impacts on species health, and mismatches in timing between seasonal life-cycle events such as species migration and food availability (CNRA 2018).

Public Health

Global climate change is also likely to result in more extreme-heat events. These extreme-heat events would increase the risk of death from dehydration, heart attack, stroke, and respiratory distress, especially with people who are ill, children, the elderly, and the poor, who may lack access to air conditioning and medical assistance. A warming planet is expected to bring more severe-weather events, worsening wildfires and droughts, a decline in air quality, rising sea levels, and increases in allergens and vector-borne diseases, all of which present significant health and well-being risks for California populations (CNRA 2018).

Although 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 may be high. All of these impacts will have either direct or indirect negative effects for residents and businesses.

3.8.1.4 Greenhouse Gas Emissions Inventories

U.S. Greenhouse Gas Emissions

In 2022, the U.S. emitted about 6,343 million $MTCO_2e$ of GHGs, 75 percent of which came from fossil fuel combustion for electricity, heat, and transportation. Emissions increased by 1.3 percent from 2021 to 2022 (after accounting for sequestration from the land use sector). The increase was driven largely by an increase in CO_2 emissions from fossil fuel combustion, which increased by

1 percent relative to 2021. This increase in fossil fuel consumption emissions was due primarily to the economic activity rebound after the height of the COVID-19 pandemic. Of the nation's major sectors, transportation accounts for the highest volume of GHG emissions (approximately 28 percent), followed by electricity (25 percent), industry (23 percent), commercial and residential (13 percent), and agriculture (11 percent). Total U.S. GHG emissions decreased by 3 percent between 1990 and 2022, reaching a peak in 2007 before generally decreasing (USEPA 2024b).

California Greenhouse Gas Emissions

The California Air Resources Board (CARB) compiles GHG inventories for the State. Based on the GHG inventory data from 2022 (the most recent year for which data are available), emissions from GHG-emitting activities statewide were 371 million MTCO2e. From 2000 to 2022, the carbon intensity of California's economy decreased by 54.8 percent while the gross domestic product increased by 77.5 percent (CARB 2024b). The decline in total emissions is likely attributable to the State of California's GHG emissions reduction goals, and in part to the post–COVID-19 pandemic, most notably from reduced vehicle activity (reductions in travel by heavy- and light-duty vehicles).

Of California's major sectors, transportation accounts for the highest volume of GHG emissions (approximately 39 percent), followed by the industrial sector (22 percent), the electricity sector (16 percent), residential and commercial (14 percent), and agriculture (8 percent) (CARB 2024b).

3.8.2 Regulatory Setting

3.8.2.1 Federal

Clean Air Act

The U.S. Supreme Court has held that the U.S. Environmental Protection Agency (USEPA) must consider regulation of GHG emissions by motor vehicles. In *Massachusetts v. Environmental Protection Agency* et al. (127 S. Ct. 1438 [2007]), 12 states and cities, including California, together with several environmental organizations, sued USEPA to require that GHGs be regulated as pollutants under the Clean Air Act. The Supreme Court ruled that GHGs fit within the Clean Air Act's definition of a pollutant and that USEPA has the authority to regulate GHGs.

On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- **Endangerment Finding:** Current and projected concentrations of the six key GHGs—CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

These findings did not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

Use of Electric Transmission and Distribution Equipment

Pursuant to federal regulations (Code of Federal Regulations Title 40, Part 98, Subpart DD), operators of certain electrical facilities, such as sulfur hexafluoride–containing gas-insulated switchgear and circuit breakers, are required to report sulfur hexafluoride emissions to USEPA (USEPA 2024c). Gas-insulated switchgear and circuit breakers and any other equipment associated with the Project that contain sulfur hexafluoride would be subject to reporting under this regulation.

3.8.2.2 State

A variety of statewide rules and regulations mandate quantifying GHG emissions and reducing such emissions if they exceed established thresholds. CEQA requires lead agencies to evaluate project-related GHG emissions and the potential for projects to contribute to climate change. Appropriate mitigation must be provided if the lead agency determines that a project would result in a significant addition of GHGs to the atmosphere. Other state programs, regulations, plans, and goals designed to reduce GHG emissions are discussed below.

California Renewable Energy Programs

In 2002, California established its initial Renewables Portfolio Standard (RPS), with the goal of increasing the percentage of renewable energy in the State's electricity mix to 20 percent by 2017. State energy agencies recommended accelerating that goal, and the RPS goal has since been increased several times:

- *2008*: Executive Order S-14-08 (November 2008) required California utilities to reach the 33 percent renewable electricity goal by 2020, consistent with Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (see below).
- *2011*: In April 2011, Senate Bill (SB) 2 of the First Extraordinary Session (SB X1-2) was signed into law. SB X1-2 expressly applied the new 33 percent RPS by December 31, 2020, to all retail sellers of electricity and established renewable energy standards for interim years before 2020.
- *2018*: SB 100, the California Clean Energy Act of 2017, was signed into law. This bill established a target to supply the state with 100 percent renewable and zero-carbon energy resources by 2045.
- *2022*: SB 1020, signed on September 16, 2022, revised SB 100 to require that renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to end-use customers by December 31, 2035; 95 percent of all retail sales to end users by December 31, 2040; 100 percent of electricity procured to serve all state agencies by December 31, 2035; and 100 percent of all retail sales to end users by December 31, 2045.

Assembly Bill 32 and the Climate Change Scoping Plan

AB 32, the California Global Warming Solutions Act of 2006, required CARB to establish a statewide GHG emissions cap for 2020 based on 1990 emissions levels. AB 32 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; CARB is authorized to enforce compliance with the program. Under AB 32, CARB was also required to adopt a statewide GHG emissions limit

equivalent to the statewide GHG emissions levels in 1990, which had to be achieved by 2020. CARB established this limit in December 2007 at 427 million $MTCO_2e$ (CARB 2008).

In December 2008, CARB approved the Climate Change Scoping Plan, also known as the AB 32 Scoping Plan, which outlined the State of California's strategy to achieve the 2020 GHG emissions limit by reducing 174 million $MTCO_2e$ (about 191 million tons) of emissions across various sectors. The plan proposed to reduce GHG emissions, improve the environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs, and enhance public health. The Scoping Plan was to be updated every 5 years to evaluate the mix of AB 32 policies and remain on track to achieve reduction goals. It included 39 recommended measures. CARB released updates to the Scoping Plan in 2014, 2017, and 2022 (CARB 2014, 2017, 2022).

Executive Order B-30-15 and SB 32

In April 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. Reaching this emission reduction target will make it possible for California to reach its ultimate goal of reducing emissions 80 percent under 1990 levels by 2050, as identified in Executive Order S-3-05. Executive Order B-30-15 also specifically addresses the need for climate adaptation and directs State government to take the following steps (Office of the Governor 2015):

- Incorporate climate change impacts into the State's 5-Year Infrastructure Plan.
- Update the *Safeguarding California Plan*, the State climate adaptation strategy, to identify how climate change will affect California infrastructure and industry and what actions the state can take to reduce the risks posed by climate change.
- Factor climate change into State agencies' planning and investment decisions.
- Implement measures under existing agency and departmental authority to reduce GHG emissions.

Executive Order B-30-15 required CARB to update the AB 32 Climate Change Scoping Plan to incorporate the 2030 target. On September 8, 2016, Governor Brown signed SB 32, which codified the 2030 reduction target (i.e., 40 percent below 1990 levels) called for in Executive Order B-30-15. CARB's 2017 *Climate Change Scoping Plan Update* (2017 Scoping Plan Update) (discussed below) addresses the 2030 target.

2017 Climate Change Scoping Plan Update

CARB approved the 2017 Scoping Plan Update in December 2017. The 2017 Scoping Plan Update proposes a framework of action for reducing GHG emissions by 40 percent by 2030 relative to 1990 levels (CARB 2017). Through a combination of data synthesis and modeling, CARB determined that the target statewide 2030 emissions limit is 260 million $MTCO_2e$, and that further commitments will need to be made to achieve an additional reduction of 50 million $MTCO_2e$ beyond current policies and programs. The cornerstone of the 2017 Scoping Plan Update is an expansion of the cap-and-trade program to meet the aggressive 2030 GHG emissions goal and ensure achievement of the 2030 limit and 2050 goal set forth by Executive Order B-30-15.

Assembly Bill 1279 (California Climate Crisis Act)

Signed into law in September 2022, AB 1279 requires California to achieve two objectives by 2045 or sooner: (1) net zero GHG emissions and (2) a reduction in statewide anthropogenic GHG emissions of 85 percent below 1990 levels. AB 1279 requires CARB to ensure that the 2022 *Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan), described further below, identifies and recommends measures to achieve carbon neutrality, and to identify and implement policies and strategies for CO_2 removal and carbon capture, utilization, and storage technologies.

2022 Scoping Plan for Achieving Carbon Neutrality

The 2022 Scoping Plan, adopted by CARB in December 2022, expands on prior scoping plans and responds to AB 1279 by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the State's climate target of reducing anthropogenic emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or earlier (CARB 2022). Implementation of the plan will achieve significant reductions in fossil fuel combustion through the deployment of clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 Scoping Plan identifies an action applicable to the construction equipment sector that requires that 25 percent of construction energy demand be electrified by 2030 and 75 percent by 2045 (CARB 2022). Because construction of the Project would be completed before 2030, this construction equipment sector action is not directly applicable to the Project.

Advanced Clean Cars Program

In January 2012, pursuant to Recommended Measures T-1 and T-4 of the 2008 Scoping Plan, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model years 2017–2025. In response to a midterm review of the standards in March 2017, CARB directed staff to begin working on post-2025 model year vehicle regulations (Advanced Clean Cars II) to research additional measures to reduce air pollution from light-duty and medium-duty vehicles.

Additionally, in September 2020, Governor Gavin Newsom signed Executive Order N-79-20, which established a goal for 100 percent of California sales of new passenger car and trucks to be zero-emission by 2035 and directed CARB to develop and propose regulations toward this goal. The primary mechanism for achieving these targets for passenger cars and light trucks is the Advanced Clean Cars II Program. CARB adopted the Advanced Clean Cars II regulations on August 25, 2022.

Advanced Clean Trucks Regulation

The Advanced Clean Trucks Regulation is part of a holistic approach to accelerate a large-scale transition of zero-emission medium-and heavy-duty vehicles.

Starting with the 2024 model year, the Advanced Clean Trucks Regulation requires manufacturers to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. Additionally, large employers, such as retailers, manufacturers, and brokers, are required

to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, are required to report about their existing fleet operations.

The goal of this regulation is to reduce emissions of NOx and GHGs through advanced clean technology, and to increase the penetration of the first wave of zero-emission heavy-duty technology into applications that are well suited to its use.

Advanced Clean Fleets Regulation

The Advanced Clean Fleets Regulation requires fleets that are well suited for electrification to transition to zero-emission vehicles. The regulation requires that the use of zero-emission vehicles be phased in for targeted fleets and that manufacturers manufacture only zero-emission trucks starting in the 2036 model year.

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, CARB adopted the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling to reduce public exposure to emissions of diesel particulate matter (California Code of Regulations Title 13, Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure prohibits diesel-fueled commercial vehicles from idling for more than 5 minutes at any given location. Although the primary goal of this measure is to reduce public health impacts from diesel emissions, compliance with the regulation also results in GHG emissions reductions and energy savings in the form of reduced fuel consumption from unnecessary idling.

Regulation for Reducing Sulfur Hexafluoride Emissions from Gas-Insulated Switchgear

The purpose of this regulation (California Code of Regulations Title 17, Section 95350 et seq.) is to achieve GHG emissions reductions by reducing leaked sulfur hexafluoride emissions from gas-insulated switchgear and circuit breakers. Owners of such switchgear must not exceed maximum allowable annual emissions of 1.0 percent of the total sulfur hexafluoride 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 sulfur hexafluoride emissions from all active gas-insulated switchgear equipment, divided by the average annual sulfur hexafluoride nameplate capacity of all active gas-insulated switchgear equipment. Owners must regularly inventory gas-insulated switchgear equipment, measure quantities of sulfur hexafluoride, and maintain the associated records for at least 3 years. Additionally, by June 1 of each year, owners must submit an annual report to CARB's Executive Officer for emissions that occurred during the previous calendar year (CARB 2011).

3.8.2.3 Regional and Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities

subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to greenhouse gas emissions that would otherwise be relevant to the Project and alternatives are described below.

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) CEQA Air Quality Guidelines were prepared to assist in the evaluation of air quality impacts of projects and plans proposed in the Bay Area. The guidelines also include recommended assessment methods for air toxics, odors, and GHG emissions.

In April 2022, in response to SB 32 and 2017 Scoping Plan Update targets for 2030 and AB 1279 targets for achieving carbon neutrality no later than 2045, BAAQMD adopted updated CEQA significance thresholds for GHGs and included them in the 2023 update to the BAAQMD 2022 CEQA Guidelines (BAAQMD 2022, 2023). The guidelines do not include quantitative GHG thresholds for construction. For the evaluation of operational impacts of land use projects such as residential and commercial developments, BAAQMD recommends four qualitative significance thresholds for the evaluation of GHG emissions that target electrification of buildings and transportation, efficient use of electricity, and reduction in vehicle miles traveled (BAAQMD 2023). A project can show compliance with a qualified GHG reduction strategy that meets the criteria under CEQA Guidelines Section 15183.5(b). Alternatively, if GHG emissions for a stationary-source[1] project are greater than 10,000 $MTCO_2e$ per year, the project would result in a significant impact related to GHG emissions. Because the Project would include stationary sources of fugitive sulfur hexafluoride emissions, it is considered a stationary-source project, and the stationary-source significance threshold is used in this analysis.

City of San José General Plan

The City of San José General Plan addresses climate change directly (City of San José 2024). The General Plan sets guiding policies for minimizing impacts on resources and ensuring that San José is able to maintain the infrastructure and services necessary to sustain its economy and quality of life. The General Plan does not contain any policies that are directly applicable to the Project.

Envision San José 2040 General Plan and Greenhouse Gas Reduction Strategy

As part of its General Plan update, the City of San José adopted a GHG Reduction Strategy in accordance with the BAAQMD CEQA Guidelines and CEQA Guidelines Section 15183.5. The City of San José prepared a Supplemental Program EIR to supplement the information included in the 2040 General Plan Program EIR regarding GHG emissions and global climate change. The Supplemental Program EIR reevaluated the significance of projected GHG emissions associated with existing and planned land uses in San José and the consistency of the General Plan and GHG Reduction Strategy with the California Climate Change Scoping Plan and other plans.

[1] A *stationary source* consists of an emission source with an identified emission point, such as a stack at a facility. Emissions quantified for stationary sources should include mobile sources that are associated with the stationary source such as trucks, ships, and rail (BAAQMD 2023).

In response to SB 32's 2030 goal, the City of San José updated its GHG Reduction Strategy (City of San José 2020) in alignment with SB 32, which established an interim statewide GHG reduction goal for 2030 to meet the long-term target of achieving carbon neutrality by 2045 (Executive Order B-55-18). The 2030 GHG Reduction Strategy, adopted on November 11, 2020, serves as a comprehensive update to the City's original GHG Reduction Strategy and reflects the plans, policies, and codes as approved by the City Council. The 2030 GHG Reduction Strategy identifies seven strategies to reduce GHG emissions to achieve the 2030 target. These strategies include GHG reductions in energy, building, land use and transportation, water, and waste sectors.

The 2030 GHG Reduction Strategy also serves as a Qualified Climate Action Plan for tiering and streamlining in accordance with the BAAQMD CEQA Guidelines and CEQA Guidelines Section 15183.5. The City of San José has developed a Compliance Checklist that serves to apply the relevant General Plan and 2030 GHG Reduction Strategy policies through a streamlined review process for proposed new development projects that are subject to discretionary review and that trigger environmental review under CEQA. The 2030 GHG Reduction Strategy does not contain any policies that are directly applicable to the Project.

Santa Clara County General Plan

The Santa Clara County General Plan addresses air quality and climate change in Section G of the Health Element (Santa Clara County 2015). The following GHG-related policies are applicable to the Project:

> ***Policy HE-G.1: Air quality environmental review.*** Continue to utilize and comply with the Air District's project- and plan-level thresholds of significance for air pollutants and greenhouse gas emissions.
>
> ***Policy HE-G.2: Coordination with regional agencies.*** Coordinate with the Air District to promote and implement stationary and area source emission measures.
>
> ***Policy HE-G.4: Off-road sources.*** Encourage mobile source emission reduction from off-road equipment such as construction, farming, lawn and garden, and recreational vehicles by retrofitting, retiring and replacing equipment and by using alternate fuel vehicles.
>
> ***Policy HE-G.5: GHG reduction.*** Support efforts to reduce GHG emissions from mobile sources, such as reducing vehicle trips, vehicle use, vehicle miles traveled (VMT), vehicle idling, and traffic congestion. These efforts may include improved transit service, better roadway system efficiency, state-of-the-art signal timing and Intelligent Transportation Systems (ITS), transportation demand management, parking and roadway pricing strategies, and growth management measures.

3.8.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility will be responsible for implementing its measures only to that part of the Project for which it will own or be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing PG&E Metcalf

Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Chapter 2, Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.8.3.1 Applicant-Proposed Measures

No Applicant-proposed measures (APMs) have been proposed by LSPGC to specifically reduce potential effects associated with greenhouse gas emissions.

3.8.3.2 PG&E Best Management Practices and Field Protocols

No best management practices (BMPs) or field protocols (FPs) have been proposed by PG&E to specifically reduce potential effects associated with greenhouse gas emissions.

3.8.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant impact related to GHG emissions if it would do any of the following:

a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

3.8.5 Direct and Indirect Effects

3.8.5.1 Approach to Analysis

Neither CEQA Guidelines Section 15064.4 nor any other law requires or endorses a specific analytical methodology or any quantitative criterion for determining the significance of GHG emissions.[2] Instead, lead agencies are to make a "good-faith effort" to "describe, calculate, or

[2] See *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal.4th 204, which identifies three "potential options" for lead agencies evaluating the cumulative significance of a proposed land use development's GHG emissions and explicitly stating that none of the three options came with a "guarantee" that it would be sufficient if later challenged.

estimate" GHG emissions, and to consider the extent to which the project would either 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."

Impacts from Project-related GHG emissions were assessed by comparing the likely emissions from the Project's construction and operation and maintenance phases to applicable emissions thresholds for operational stationary sources established by the local air district with jurisdiction in the Project area (i.e., BAAQMD). The Project's estimated GHG emissions were determined using assumptions about construction and operation equipment and vehicle use provided by LSPGC and the methods established in the California Emissions Estimator Model Version 2022.1.1.20. See **Appendix B** for the detailed emission estimate calculations.

The Project's long-term operational emissions would be primarily stationary-source emissions of fugitive sulfur hexafluoride from new gas-insulated switchgear at the PG&E San Jose B Substation. Therefore, this analysis uses BAAQMD stationary-source operation thresholds of 10,000 $MTCO_2e$ per year to gauge the significance of the Project's GHG emissions. The threshold represents the level of GHG emissions that, if exceeded, are considered by BAAQMD to result in a significant impact.

BAAQMD does not have recommended GHG emissions significance thresholds for short-term construction emissions. However, various agencies, including the South Coast Air Quality Management District (SCAQMD), have suggested that amortizing short-term construction emissions over the expected life of a project (e.g., 30 years) and adding those emissions to the long-term operation emissions is appropriate in the evaluation of project-level emissions impacts (SCAQMD 2008). Amortizing construction emissions over 30 years represents the estimated useful life of the Project, a methodology consistent with preliminary guidance developed by the SCAQMD and widely used as an industry standard. This approach is consistent with the *CEQA and Climate Change Advisory Discussion Draft* published by the California Governor's Office of Planning and Research (subsequently renamed the Governor's Office of Land Use and Climate Innovation). As stated therein, "when possible, lead agencies should quantify the project's construction and operational greenhouse gas emissions, using available data and tools, to determine the amount, types, and sources of greenhouse gas emissions resulting from the project" (OPR 2018).

Therefore, the Project's total construction emissions were amortized over 30 years and combined with operational Project emissions before being compared to the annual thresholds established by BAAQMD's stationary-source threshold of 10,000 $MTCO_2e$.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.8.5.2 Impact Assessment

Criterion a) Whether the Project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact 3.8-1: The Project would generate greenhouse gas emissions. (*Less than Significant*)

Construction

As discussed in Chapter 2, Section 2.9.4, *Construction Schedule*, Project construction would emit GHGs over a period of approximately 27 months. The main components of Project construction would consist of two new HVDC terminals, new underground and overhead transmission lines, modifications to PG&E's Metcalf Substation, and expansion and modification of PG&E's San Jose B Substation. GHG emissions would be generated by off-road heavy-duty construction equipment, and by on-road vehicle trips by workers, vendors, and haul trucks. **Table 3.8-1**, *Project Greenhouse Gas Emissions by Construction Year and Component,* summarizes the GHG emissions by construction activity based on the full equipment usage and workforce assumptions provided in Table 2-7, *Construction Equipment And Workforce*, in Chapter 2. The emissions presented in Table 3.8-1 represent emissions from expected work activity. Construction activities would include the operation of various types of off-road heavy-duty construction equipment, such as forklifts, loaders, graders, cranes, and excavators. Likewise, on-road vehicle trips from workers, vendors, and heavy-duty haul trucks would occur during each of these activities.

TABLE 3.8-1
PROJECT GREENHOUSE GAS EMISSIONS BY CONSTRUCTION YEAR AND COMPONENT

Construction Activity	Total GHG Emissions ($MTCO_2e$)
Skyline HVDC Terminal and PG&E San Jose B Substation 2026	1,773
Skyline HVDC Terminal and PG&E San Jose B Substation 2027	1,142
PG&E San Jose B Substation 2028*	645
PG&E San Jose B Substation 2029*	643
PG&E San Jose B Substation 2030*	130
Grove HVDC Terminal and PG&E Metcalf Substation 2026	1,478
Grove HVDC Terminal and PG&E Metcalf Substation 2027	816
Transmission Lines 2026	1,917
Transmission Lines 2027	2,232
Transmission Lines 2028	214
Total Emissions	**10,990**
Amortized Emissions	**366**

NOTES: CalEEMod = California Emissions Estimator Model; GHG = greenhouse gas; MTCO2e = carbon dioxide equivalent; PG&E = Pacific Gas and Electric Company

* The emission estimates for the PG&E San Jose B Substation Expansion include emissions for PG&E activities that are not part of the Project. The emissions associated with the PG&E activities that would not be part of the Project would occur in 2028 through 2030. Therefore, the emission estimates presented in this table are slightly conservative for the purposes of evaluated the Project's emissions.

SOURCE: Data compiled by Environmental Science Associates in 2025 (see Appendix B), CalEEMod output.

As identified in Table 3.8-1, the Project would generate approximately 10,990 $MTCO_2e$ over an estimated 27-month construction period. Amortized over an assumed 30-year Project lifetime, construction emissions would be approximately 366 $MTCO_2e$ per year.

Operation and Maintenance

Project operation and maintenance would result in long-term GHG emissions. The existing PG&E San Jose B Substation would result in operational GHG emissions from fugitive sulfur hexafluoride emissions that would leak from the proposed gas-insulated switchgear. Estimated annual GHG emissions from switchgear leaks is 1,551 $MTCO_2e$ per year.[3] Day-to-day operations of the proposed Grove and Skyline HVDC Terminals would include the consumption of electricity on-site from HVDC cooling equipment and heating, ventilation, and air conditioning units. Additional emissions during Project operation would occur from vehicle trips for periodic maintenance activities. The Project's operation and maintenance and inspection activities associated with the proposed Grove and Skyline HVDC Terminals would each generate an estimated 167 $MTCO_2e$ per year. Therefore, total operation and maintenance emissions for the Project would be 1,885 $MTCO_2e$ per year.

Impact Conclusion

Table 3.8-2, *Annual Greenhouse Gas Emissions*, summarizes the amortized construction emissions combined with the emissions that would be associated with long-term Project operation and maintenance activities.

TABLE 3.8-2
ANNUAL GREENHOUSE GAS EMISSIONS

Emission Source	Project GHG Emissions ($MTCO_2e$ per Year)
Skyline HVDC Terminal Operation and Maintenance	167
Grove HVDC Terminal Operations and Maintenance	167
Sulfur Hexafluoride Emissions	1,551
Construction (amortized over 30 years)	366
Combined Annual GHG Emissions	**2,251**
BAAQMD Significance Threshold	10,000
Exceeds Threshold?	**No**

NOTES: BAAQMD = Bay Area Air Quality Management District; GHG = greenhouse gas; $MTCO_2e$ = carbon dioxide equivalent
SOURCE: Data compiled by Environmental Science Associates in 2025 (see Appendix B)

The combined annual GHG emissions estimated for the Project are 2,251 $MTCO_2e$ per year, which is well below the BAAQMD significance threshold of 10,000 $MTCO_2e$ per year.

[3] Per Data Request 3 from LSPGC, the proposed quantity of sulfur hexafluoride gas for the switchgears at the PG&E San Jose B Substation totals approximately 15,000 pounds. At an annual leak rate of 1 percent, annual sulfur hexafluoride emissions would be 150 pounds. Using a GWP of 22,800 for sulfur hexafluoride, this corresponds to approximately 1,551 $MTCO_2e$ per year. Emissions were calculated by converting the leaked sulfur hexafluoride to metric tons and applying the applicable GWP.

Therefore, the Project would not generate, either directly or indirectly, GHG emissions that would have a significant impact on the environment, and the impact would be **less than significant**.

Mitigation: None required.

Criterion b) Whether the Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Impact 3.8-2: The Project could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (*Less than Significant*)

Construction

The 2022 Scoping Plan identifies a construction equipment sector action for the Scoping Plan Scenario that commits to electrification of 25 percent of energy demand by 2030 and 75 percent by 2045. A similar commitment is not proposed for Project-related construction equipment. However, Project construction would be completed before the 2030 compliance date associated with the construction equipment sector action; therefore, it would not be directly applicable to the Project.

Project construction would temporarily result in increased GHG emissions compared to baseline conditions; however, the emissions would not exceed regional or quantitative thresholds and would not conflict with applicable plans, policies, and regulations for reducing GHG emissions. The amortized construction emissions associated with the Project would not exceed the quantitative significance threshold adopted by BAAQMD, which has been adopted for the purpose of reducing GHG emissions. Therefore, Project construction would not conflict with any applicable plan, policies, or regulations, and this impact would be **less than significant** during construction.

Operation and Maintenance

As discussed in Impact 3.8-1, Project operation and maintenance would not generate GHG emissions, primarily due to leaking sulfur hexafluoride from gas-insulated switchgear equipment. Regarding the management of sulfur hexafluoride, LSPGC would be required to comply with both USEPA's sulfur hexafluoride emission reporting program and CARB's sulfur hexafluoride regulations. Inventories of sulfur hexafluoride associated with the Project would be documented and reported annually to USEPA and CARB.

Furthermore, the Project's electrical upgrades and improvements are designed to support current and long-term forecasted electrical demand in the area. LSPGC would provide this additional energy and be required to comply with the State's RPS, which requires that renewable energy resources and zero-carbon resources supply 90 percent of all retail electricity sales to end-use customers by December 31, 2035; 95 percent of all retail sales to end users by December 31, 2040; 100 percent of electricity procured to serve all State agencies by December 31, 2035; and 100 percent of all retail sales to end users by December 31, 2045. Additionally, the Project would provide additional electrical infrastructure that would support grid resiliency and modernization, aiming to achieve the 2022 Scoping Plan's carbon neutrality target by 2045.

Because LSPGC would comply with USEPA and CARB regulations and programs regarding the reporting of sulfur hexafluoride and the State's RPS, and because the Project would not conflict with the 2022 Scoping Plan, the Project would not conflict with applicable plans, policies, and regulations for reducing GHG emissions. Furthermore, the Project's estimated GHG emissions are below the BAAQMD threshold for stationary-source projects, and the Project would be consistent with the General Plans of the City of San José and Santa Clara County. Therefore, Project operation would not conflict with any applicable plan, policies, or regulations, and this impact would be **less than significant** during operation and maintenance.

Mitigation: None required.

3.8.6 Cumulative Effects Analysis

This section presents an analysis of the cumulative effects of the Project when considered in combination with other past, present, and reasonably foreseeable future projects that could result in cumulatively considerable impacts. Significant cumulative impacts related to GHG emissions could occur if the incremental impacts of the Project would combine with the incremental impacts of one or more cumulative projects. Section 3.0.3, *Approach to Cumulative Impacts Analysis,* includes Table 3.0-1, which lists past, present, and reasonably foreseeable future projects within a 2-mile radius of the Project site.

3.8.6.1 Criterion a)

Impact C.3.8-1: The Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a cumulatively significant impact on the environment. (*Less than Significant*)

Climate change is a cumulative effect of all natural and anthropogenic sources of GHGs accumulated globally. The GHG emissions from an individual project would not be sufficient to measurably influence global climate change, and thus, the assessment of GHG emissions impacts is inherently cumulative. Consideration of a project's climate change impact, therefore, is essentially an analysis of a project's contribution to a cumulatively significant global impact through its GHG emissions. Although it is possible to examine the quantity of GHGs that would be emitted from individual project sources, it is not currently possible to link these GHGs emitted from a specific source or location to particular global climate changes. Therefore, the significance presented in this impact is based on a determination of whether the Project's GHG emissions represent a cumulatively considerable contribution to climate change.

As presented in Section 3.8.5.2, *Impact Assessment*, Project construction and operation would result in GHG emissions from construction equipment and worker trips. Over the entire 27-month Project construction period, approximately 10,990 $MTCO_2e$ would be emitted, and over the long term, a net increase in operation and maintenance activity emissions would occur. When amortized over the Project's 30-year life, construction and operation emissions would be approximately 2,251 $MTCO_2e$ annually. These emissions would fall well below BAAQMD's quantitative threshold of significance for GHG emissions. Therefore, the Project would not generate, either

directly or indirectly, GHG emissions that would have a significant impact on the environment. As a result, the Project's contribution to any cumulative impacts would not be cumulatively considerable, and the cumulative impact would be **less than significant**.

Mitigation: None required.

3.8.6.2 Criterion b)

Impact C.3.8-2: The Project would not cumulatively conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (*Less than Significant*)

The amortized construction emissions associated with the Project do not exceed the quantitative significance threshold adopted by BAAQMD, which was adopted for the purpose of reducing GHG emissions. Additionally, Project construction would be consistent with the requirements and intentions of the applicable State plans, policies, and regulations identified in Section 3.8.2, *Regulatory Setting*. Additionally, LSPGC complies with and CARB regulations and programs regarding the handling, storage, and reporting of sulfur hexafluoride and the State's RPS and would not conflict with the 2022 Scoping Plan. Therefore, the Project construction and operation impact associated with any conflicts with any applicable plan, policies, or regulations would not be cumulatively considerable, and the cumulative impact would be **less than significant**.

Mitigation: None required.

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3.9 Hazards and Hazardous Materials

This section evaluates the impacts of the Project related to hazards and hazardous materials. It includes information about the physical and regulatory setting, and it identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. Impacts related to air quality and noise are analyzed in Section 3.3, *Air Quality,* and Section 3.13, *Noise,* respectively.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. The CPUC received comments related to flooding hazards and wildfire risk, which are summarized in Sections 3.10, *Hydrology and Water Quality* and 3.20, *Wildfire*, respectively. No additional scoping comments pertaining to hazards and hazardous materials were received.

3.9.1 Environmental Setting

The study area for the analysis of potential impacts related to hazards and hazardous materials, unexploded ordnance, and shock hazards is the Project boundary, which is defined as the footprint of the proposed High-Voltage Direct Current (HVDC) Terminals and transmission lines, including all areas of temporary or permanent ground disturbance. The study area also includes existing hazardous materials sites, wildland fires prevention zones, and haul routes used for the transport of hazardous materials and wastes associated with the Project within 0.125 mile from the Project boundary. The study area relative to schools is 0.25 mile and for airports, air traffic, and helicopter use within 2 miles of the Project boundary.

3.9.1.1 Definition of Hazardous Materials

A 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 (California Health and Safety Code Chapter 6.95, Section 25501[n]). The term *hazardous materials* refers to both hazardous substances and wastes. Under state and federal laws, any material, including wastes, may be considered hazardous if it is specifically listed by statute 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).

Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been spent, discarded, discharged, spilled, contaminated, or are being stored until they can be disposed of properly (California Code of Regulations [CCR] Title 22, Section 66261.10 [22 CCR Section 66261.10]). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific criteria established in 22 CCR Sections 66261.20–66261.24. Hazardous substances are regulated by multiple agencies, as described in Section 3.9.2, *Regulatory Setting*. Cleanup requirements for hazardous material releases are determined on a case-by-case basis by the applicable regulatory agency (e.g., California Department of Toxic Substances Control [DTSC] or San Francisco Bay Regional Water Quality Control Board [RWQCB]) with lead jurisdiction over a contaminated site.

3.9.1.2 Hazardous Materials Sites

In California, Government Code Section 65962.5 requires the State Water Resources Control Board and DTSC to maintain regulatory databases of hazardous materials sites, commonly known as the Cortese List.

The Cortese List identifies sites with suspected and confirmed releases of hazardous materials into subsurface soil or groundwater. The listed sites can be accessed through the State Water Resources Control Board's GeoTracker database, which includes leaking underground storage tanks, permitted underground storage tanks, U.S. Department of Defense sites, and Cleanup Program sites; the DTSC EnviroStor database for state and federal response sites; voluntary school and military cleanups and corrective actions; and permitted sites. The status and reporting of these hazardous materials sites change as identification, monitoring, and clean-up progress. Typically, a listed site is considered closed or subject to no further action once it has been demonstrated to the satisfaction of the regulatory agency with jurisdiction that existing site uses, combined with the levels of identified residual contamination present no significant risk to human health or the environment, and the overseeing agency closes the case. The databases are interconnected and can be viewed through either the GeoTracker or the EnviroStor websites.

The proposed Skyline HVDC Terminal site currently has a Covenant and Environmental Restriction on Property (Covenant) issued by Insight Rail Yard LLC in the city of San José and Santa Clara County (San Francisco Bay Regional Water Quality Control Board 2017). The site's soils were impacted by metals, petroleum hydrocarbons, and semi-volatile organic compounds as a result of past operation of a former railroad maintenance and fueling facility. To protect present and future human health and safety, the Covenant sets forth protection provisions, which are outlined in Section 2.8.11**,** *Waste Generation and Management*.

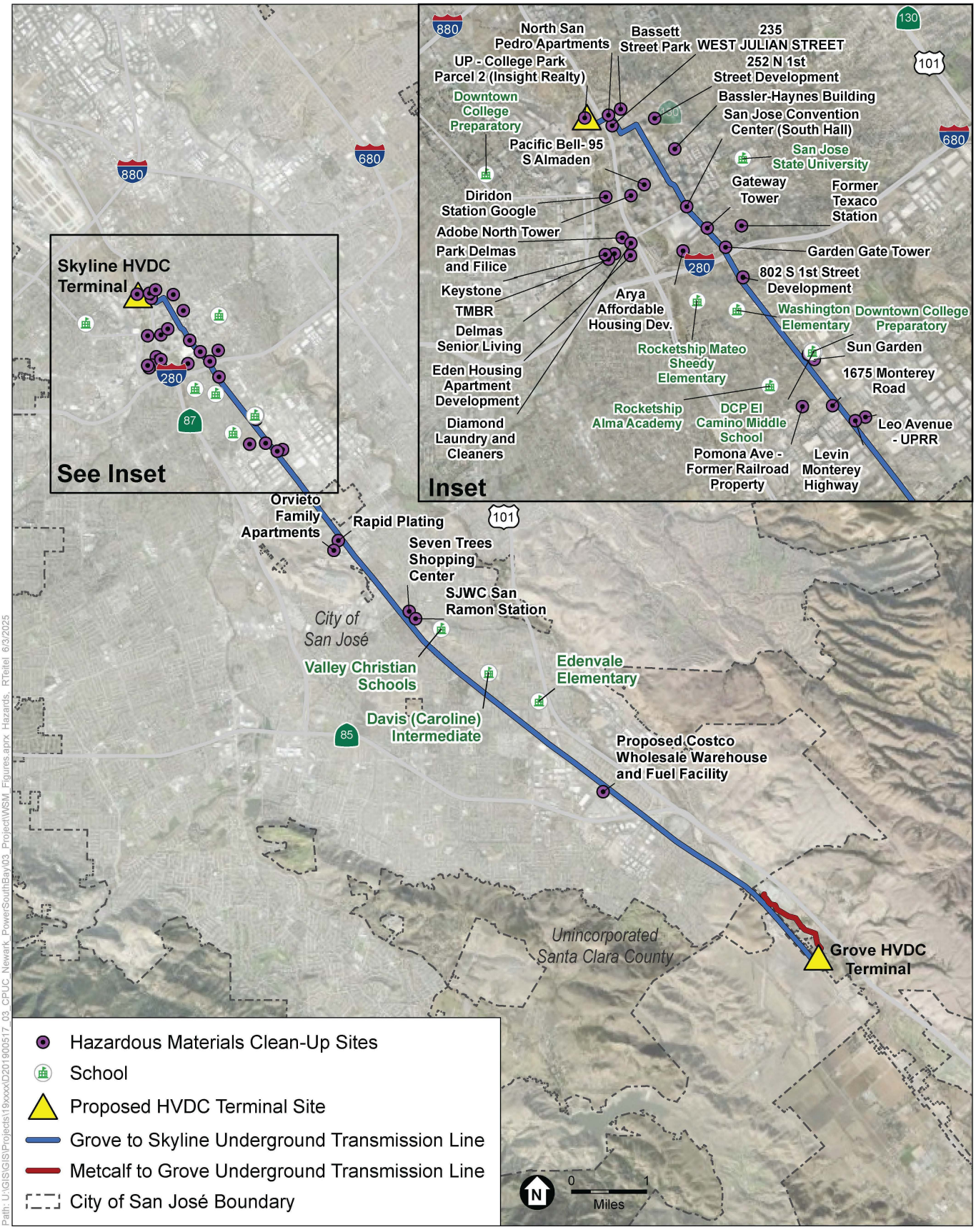
The search of the GeoTracker and EnviroStor databases identified nine hazardous materials release site cases within 0.125 mile of a Project boundary, as shown in **Figure 3.9-1**, *Open Hazardous Materials Clean-Up Sites in the Project Vicinity*, and in **Table 3.9-1**, *Open Hazardous Materials Clean-Up Sites in the Project Areas' Vicinity*.

3.9.1.3 Proximity to Schools

The Project would be located within 0.25 mile of nine schools. The distances of the schools to the Project are shown in **Table 3.9-2**, *Schools Within 2 Miles of the Project*.

3.9.1.4 Proximity to Airports

The Project would be within 2 miles of San José Mineta International Airport located about 1 mile to the north of the Project boundary. Approximately 2.5 miles of the proposed Grove to Skyline 320-kilovolt (kV) direct current (DC) Transmission Line (Grove to Skyline 320 kV Transmission Line) would be located within the Airport Influence Area for San José Mineta International Airport (City of San José 2024a). The Federal Aviation Regulations (FAR) Part 77 sets in place height restrictions near airports, and the Project area would have height limitations of approximately 162–612 feet aboveground.



Source: ESA, 2024; DTSC, 2024

Power Santa Clara Valley Project

Figure 3.9-1
Open Hazardous Materials Clean-Up Sites in the Project Vicinity

TABLE 3.9-1
OPEN HAZARDOUS MATERIALS CLEAN-UP SITES IN THE PROJECT AREAS' VICINITY

Name	Location	Contaminant(s) of Concern	Site Status
UP – College Park Parcel 2 (Insight Realty)	Guadalupe Parkway and Ryland Street, San José, CA 95110	Arsenic, insecticides/pesticides/fumigants/ herbicides, polychlorinated biphenyls, polynuclear aromatic hydrocarbons, trichloroethylene	Open – Inactive as of September 15, 2021
North San Pedro Apartments	201 Bassett St., San José, CA 95110	Arsenic, lead, nickel	Open – Verification monitoring as of January 23, 2019
Bassett Street Park	Northeast Corner of Bassett Street and San Pedro Street, San José, CA 95110	Lead	Open – Site assessment as of November 18, 2024
235 West Julian Street	235 West Julian Street, San José, CA 95110	Diesel, metals	Open – Verification monitoring as of August 9, 2021
Brandenberg, Staedler & Moore	153 West Julian, San José, CA 95110	Trichloroethane, dichloroethane, tetrachloroethylene, vinyl chloride,	Inactive – Needs evaluation as of July 1, 2021
San José AMSA - San José AMSA 12sUB	San José AMSA	None specified	Open – Inactive as of May 20, 2010
252 N 1st Street Development	252 N 1st Street, San José, CA 95113	Diesel, naphthalene	Open – Assessment and interim remedial action as of October 17, 2022
Bassler-Hayne Building	35 and 43 East Santa Clara Street, San José, CA 95113	Chlorinated solvents – PCE	Open – Remediation as of July 12, 2021
PACIFIC BELL - 95 S Almaden	95 S. Almaden Boulevard, San José, CA 95113	Diesel	Open – Verification monitoring as of October 5, 2018
Adobe North Tower	333 W San Fernando St., San José, CA 95110	Volatile organic compounds and petroleum hydrocarbons	Open – Long term management as of February 2, 2025
Diridon Station Google	W Santa Clara St. and Delmas Ave, San José, CA 95113	Benzene, dichloroethane, lead, naphthalene, nickel, total petroleum hydrocarbons	Open – Inactive as of October 21, 2019
Park Delmas and Filice	Park Ave and West San Carlos St., San José, CA 95110	Arsenic, lead	Open – Remediation as of December 19, 2016
Diamond Laundry and Cleaners	398 W San Carlos Street, San José, CA 95110	Tetrachloroethylene, trichloroethylene	Open – Remediation as of January 6, 2021
Keystone	495 W San Carlos Street, San José, CA 95110	Lead	Open – Assessment and interim remedial action as of April 25, 2022
Delmas Senior Living	470 W San Carlos Street, San José, CA 95110	None specified	Open – Assessment and interim remedial action as of April 16, 2021
TMBR	486-498 W San Carlos Street, San José, CA 95110	Lead, tetrachloroethylene	Open – Site assessment as of October 1, 2021
Eden Housing Apartment Development	425 Auzerais Ave, San José, CA 95126	Benzene, tetrachloroethylene	Open – Assessment and interim remedial action as of October 29, 2020
San José Convention Center (South Hall)	South Markey Street, San José, CA	Gasoline, lead, solvents	Open – Inactive as of August 12, 2019

TABLE 3.9-1
OPEN HAZARDOUS MATERIALS CLEAN-UP SITES IN THE PROJECT AREAS' VICINITY

Name	Location	Contaminant(s) of Concern	Site Status
Gateway Tower	470 South Market Street, San José, CA 95113	Benzene, ethylbenzene, naphthalene, tetrachloroethylene, toluene, total petroleum, hydrocarbons, trichloroethylene, xylene	Open – Site assessment as of January 6, 2023
Arya Affordable Housing Development	500 S Almaden Blvd, San José, CA 95110	None specified	Open – Assessment and interim remedial action as of October 28, 2020
Former Texaco Station	598 S. First Street, San José, CA 95113	Gasoline, other fuel oxygenates	Open – Site assessment as of February 21, 2011
Garden Gate Tower	600 S 1st Street, San José, CA, 95113	Benzene, other petroleum, total petroleum hydrocarbons	Open – Site assessment as of September 2, 2021
Martha Gardens Apartments (Formerly, 802 S 1st Street Development)	802 S 1st Street, San José, CA 95110	Lead	Open – Site assessment as of April 27, 2020
Downtown College Prep	1402 Monterey Rd. San José, CA 95110	Arsenic, naturally occurring asbestos, benzene, tetrachloroethylene, total petroleum hydrocarbons, trichloroethylene	Open – Inactive as of May 5, 2025
Sun Garden	1420–1600 Monterey Road, San José, CA 95112	Arsenic, diesel, lead, nickel, polychlorinated biphenyls	Open – Site assessment as of February 28, 2012
Pomona Ave - Former Railroad Property	Pomona San José, CA, 95110	Arsenic, lead	Open – Assessment and interim remedial action as of September 9, 2017
1675 Monterey Road	1675 Monterey Road, San José, CA 95112	Arsenic, lead	Open – Remediation as of July 27, 2023
Levin Monterey Highway	1800 Monterey Road, San José, CA 95112	Polychlorinated biphenyls	Open – Site assessment as of August 4, 2023
Leo Avenue - UPRR	300 Leo Avenue, San José, CA 95112	Polychlorinated biphenyls	Open – Assessment and interim remedial action as of May 1, 2018
Rapid Plating	201 Goble Lane, San José, CA 95124	Chromium, copper, other metal, per-and polyfluoroalkyl substances, zinc	Open – Inactive as of December 3, 2015
Orvieto Family Apartments	80 Montecito Vista Drive, San José, CA 95111	Lead, polychlorinated biphenyls, TPH motor oil, TPH-diesel, TPH-gas	Certified Operation and Maintenance as of May 8, 2012
Seven Trees Shopping Center	4102 Monterey Road, San José, CA 95111	Tetrachloroethylene, trichloroethylene	Open – Assessment and interim remedial action as of August 27, 2020
SJWC San Ramon Station	Senter Rd and San Ramon Dr., San José, CA 95111	Arsenic, chlordane, chromium, copper, DDT, endrin, lead, mercury, nickel, insecticides, pesticides, fumigants, herbicides, pentachlorophenol, toxaphene, zinc	Open – Remediation as of February 2, 2016
Costco Wholesale Warehouse and Fuel Facility at Great Oaks	6898 Raleigh Road San José, CA 95123	Metals, organochlorine pesticides	Certified Operation and Maintenance – Land use restrictions only as of May 11, 2017

NOTES:

Open – Remediation: An approved remedy or remedies has/have been selected for the impacted media at the site and the responsible party is implementing one or more remedy under an approved cleanup plan for the site.

Open – Site Assessment: Site characterization, investigation, risk evaluation, or site conceptual model development are occurring at the site.

Open – Verification Monitoring: Remediation phases are essentially complete, and a monitoring or sampling program is occurring to confirm successful completion of cleanup at the site.

DDT = dichloro-diphenyl-trichloroethane; DTSC = Department of Toxic Substances Control; PCE =Perchloroethylene; SWRCB = State Water Resources Control Board; TPH = Total petroleum hydrocarbons

SOURCE: DTSC 2025, SWRCB 2025

TABLE 3.9-2
SCHOOLS WITHIN 2 MILES OF THE PROJECT

Name	Location	Distance to the Project
Downtown College Preparatory	1402 Monterey Rd, San José, CA 95110	Adjacent
DCP El Camino Middle School	1402 Monterey Rd, San José, CA 95110	Adjacent
Washington Elementary School	100 Oak St, San José, CA 95110	0.15 mile west
Valley Christian Schools	100 Skyway Dr #130, San José, CA 95111	0.15 mile northeast
Rocketship Mateo Sheedy Elementary School	788 Locust St, San José, CA 95110	0.25 mile west
Rocketship Alma Academy	198 W Alma Ave, San José, CA 95110	0.25 mile west
San José State University	1 Washington Sq, San José, CA 95192	0.25 mile northeast
Davis (Caroline) Intermediate Middle School	5035 Edenview Dr, San José, CA 95111	0.25 mile northeast
Edenvale Elementary School	285 Azucar Ave, San José, CA 95111	0.25 mile northeast

SOURCE: Data compiled by Environmental Science Associates in 2025.

3.9.1.5 Wildland Fire Hazard

In California, fire hazard severity zones are designated by the California Department of Forestry and Fire Protection (CAL FIRE 2024). The California Department of Forestry and Fire Protection uses a five-tiered ranking system to assess the threat to people based on fuel hazard, wildland fire potential, and housing density. Section 3.20, *Wildfire*, provides additional information about the fire hazard severity zones and jurisdictions potentially crossed by the Project components. No portion of the Project is proposed within areas with a fire hazard risk. Additionally, the CPUC High Fire Threat District **(**HFTD) map indicates that the Project sites and transmission line are not within an HFTD (CPUC 2025).

3.9.1.6 Electric and Magnetic Fields

As discussed in Section 2.13, *Electric and Magnetic Fields*, electric and magnetic fields (EMFs) are associated with electromagnetic radiation, which is energy in the form of photons. Radiation energy spreads as it travels and has many natural and human-made sources. The electromagnetic spectrum, the scientific term for radiation energy, includes light, radio waves, and x-rays, among other energy forms. Electric and magnetic fields are common throughout nature and are produced by all living organisms. However, concern over EMF exposure generally pertains to human-made sources of electromagnetism and their potential adverse biological effects or interference with other electromagnetic systems. Common human-made sources of EMF are electrical systems, such as electronics and telecommunication devices, as well as electric motors and other electrically powered devices. Radiation from these sources is invisible, non-ionizing, and of low frequency. In most environments, the levels of such radiation combined with natural background sources are generally low. The Project would include electrical transmission lines and facilities that would emit EMFs.

3.9.1.7 Unexploded Ordnance

No existing or historical military bases are near the proposed transmission lines, and the majority of the Project would be located within developed urban areas. Therefore, no unexploded ordnance sites are at or near the Project.

3.9.2 Regulatory Setting

3.9.2.1 Federal

The primary federal agencies responsible for managing hazards and hazardous materials include the U.S. Environmental Protection Agency, U.S. Occupational Safety and Health Administration, and the U.S. Department of Transportation. Federal laws, regulations, and responsible agencies related to hazardous materials and hazards management are summarized in **Table 3.9-3**, *Relevant Federal Laws and Regulations Related to Hazards and Hazardous Materials*.

TABLE 3.9-3
RELEVANT FEDERAL LAWS AND REGULATIONS RELATED TO HAZARDS AND HAZARDOUS MATERIALS

Classification	Federal Law or Responsible Federal Agency	Description
Hazardous Waste Handling	Resource Conservation and Recovery Act of 1976 (RCRA)	Under RCRA, the USEPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste from "cradle to grave."
	Hazardous and Solid Waste Act	The amended RCRA in 1984 affirms and extends the "cradle to grave" system of regulating hazardous wastes. The amendments specifically prohibit the use of certain techniques for the disposal of some hazardous wastes.
	Toxic Substances Control Act	Code of Federal Regulation (CFR) Title 40 (40 CFR), Chapter 1, Subchapter R, Toxic Substances Control Act, Part 761, Polychlorinated Biphenyls (PCBs) covers the identification and sampling requirements for PCBs for disposal purposes.
Hazardous Materials Management	Community Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act)	Imposes requirements to help ensure that hazardous materials are properly handled, used, stored, and disposed of and to prevent or mitigate injury to human health or the environment in the event that such materials are accidentally released.
Hazardous Materials Transportation	U.S. Department of Transportation (DOT)	DOT has the regulatory responsibility for the safe transportation of hazardous materials. DOT regulations govern all means of transportation except packages shipped by mail (49 CFR).
	U.S. Postal Service (USPS)	USPS regulations govern the transportation of hazardous materials shipped by mail.
Occupational Safety	Occupational Safety and Health Act of 1970	OSHA sets standards for safe workplaces and work practices, including reporting accidents and occupational injuries (29 CFR).
Structural and Building Components (Hazardous Building Materials [asbestos-containing materials, lead-based paint, PCBs])	Toxic Substances Control Act	Regulates the use and management of hazardous building materials and sets forth detailed safeguards to be followed during the disposal of such items.
	USEPA	The USEPA monitors and regulates hazardous materials used in structural and building components and their effects on human health.
Federal Regulation 49 CFR Part 77, Objects Affecting Navigable Airspace	Federal Aviation Administration (FAA)	Proximity to airports triggers the application of Federal Aviation Regulation Part 77, Objects Affecting Navigable Airspace, which sets forth criteria and requirements for proposed structures to be filed with the FAA for airspace safety review. 14 CFR Part 77 states that FAA notification is necessary for construction projects greater than 200 feet in height or those located within 20,000 feet of a public use airport that exceed a 100:1 surface ratio from any point on an airport's longest runway measuring more than 3,200 feet. The FAA review determines whether the proposed structures would constitute an obstruction or hazard to aircraft.

TABLE 3.9-3
RELEVANT FEDERAL LAWS AND REGULATIONS RELATED TO HAZARDS AND HAZARDOUS MATERIALS

Classification	Federal Law or Responsible Federal Agency	Description
Instruction Memorandum Number 2022-036; Standard Stipulations for Fire Prevention and Control for Electric Transmission and Distribution Rights-of-Way	U.S. Bureau of Land Management (BLM)	BLM Instruction Memorandum Number 2022-036 provides guidance on the incorporation of appropriate fire prevention and control stipulations, as required by 43 CFR Section 2805.12(a)(4), for electric transmission and distribution right-of-way authorizations issued under Title V of the Federal Land Policy and Management Act.

NOTES:
BLM = U.S. Bureau of Land Management; CFR = Code of Federal Regulations; DOT = U.S. Department of Transportation; FAA = Federal Aviation Administration; OSHA = U.S. Occupational Safety and Health Administration; PCB = Polychlorinated Biphenyls; RCRA = Resource Conservation and Recovery Act of 1976; USEPA = U.S. Environmental Protection Agency; USPS = U.S. Postal Service
SOURCE: Data compiled by Environmental Science Associates in 2025.

3.9.2.2 State

The primary state agencies responsible for managing hazardous materials in the region include the DTSC, the San Francisco Bay RWQCB, California Occupational Safety and Health Administration, California Department of Public Health, California Highway Patrol, and the California Department of Transportation. State laws, regulations, and responsible agencies related to hazardous materials management are summarized in **Table 3.9-4**, *Relevant State Laws and Regulations Related to Hazards and Hazardous Materials*.

TABLE 3.9-4
RELEVANT STATE LAWS AND REGULATIONS RELATED TO HAZARDS AND HAZARDOUS MATERIALS

Classification	Law or Responsible State Agency	Description
Hazardous Materials Management	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program); Health and Safety Code Section 25404 et seq.	CalEPA adopted regulations in January 1996 that implemented the Unified Program at the local level. The agency responsible for implementing the Unified Program is called the Certified Unified Program Agency (CUPA). For the Project area, the Santa Clara County Department of Environmental Health is the designated CUPA.
	California Fire Code, Title 24, Chapter 9, California Code of Regulations, and California Building Code, Part 2	The California Fire Code regulates the storage and handling of hazardous materials, including the requirement for secondary containment, separation of incompatible materials, and preparation of spill response procedures.
Hazardous Waste Handling	California Hazardous Materials Release Response Plan and Inventory Law of 1985	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 Hazardous Materials Business Plan and submit it to the applicable local CUPA.
	California Hazardous Waste Control Act; California Health and Safety Code, Division 20, Chapter 6.5, Article 2, Section 25100 et seq.; Department of Toxic Substances Control (DTSC)	Under the California Hazardous Waste Control Act, DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills. DTSC is also the administering agency for the California Hazardous Substance Account Act. California Health and Safety Code, Division 20, Chapter 6.8, Section 25300 et seq., also known as the State Superfund law,

TABLE 3.9-4
RELEVANT STATE LAWS AND REGULATIONS RELATED TO HAZARDS AND HAZARDOUS MATERIALS

Classification	Law or Responsible State Agency	Description
		provides for the investigation and remediation of hazardous substances pursuant to state law. Additionally, Health and Safety Code Section 25180 authorizes the DTSC, the local CUPA, or the regional water quality control board (RWQCB) to require responsible parties to cleanup spills and releases.
Hazardous Materials Transportation	California Code of Regulations Titles 13, 22, and 26	Regulates the transportation of hazardous waste originating in and passing through the state, including requirements for shipping, containers, and labeling.
	California Highway Patrol and California Department of Transportation, California Vehicle Code, Chapter 5, Sections 31303–31309	These two state agencies are primarily responsible for enforcing state and federal regulations and responding to hazardous materials transportation emergencies.
Occupational Safety	California Occupational Safety and Health Administration (Cal/OSHA) regulations (California Code of Regulations Title 8)	Cal/OSHA has primary responsibility for developing and enforcing workplace safety regulations in California. Because California has a federally approved U.S. Occupational Safety and Health Administration program, it is required to adopt regulations that are at least as stringent as those found in Code of Federal Regulations Title 29. Cal/OSHA standards are generally more stringent than federal regulations. It requires employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.
Construction Stormwater General Permit (Construction General Permit; Order 2022-0057-DWQ, NPDES No. CAS000002)	San Francisco Bay RWQCB	Dischargers whose project disturbs 1 or more acres of soil or where projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit; Order 2022-0057-DWQ, NPDES No. CAS000002). Construction activity subject to this permit includes clearing, grading, grubbing, and other disturbances to the ground such as excavation and stockpiling but does not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility. The Construction General Permit requires the development and implementation of a stormwater pollution prevention plan that includes specific Best Management Practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving off-site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management, and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area.
Underground Infrastructure	California Code of Regulations Sections 4216–4216.9	Sections 4216–4216.9, Protection of Underground Infrastructure, requires an excavator to contact a regional notification center (e.g., Underground Services Alert or Dig Alert) at least 2 days before excavation of any subsurface installations. Any utility provider seeking to begin a project that could damage underground infrastructure can call Underground Service Alert, the regional notification center for Southern California. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are then notified and are required to mark the specific location of their facilities within the work area before the start of project activities.

NOTES:

BMP = best management practices; Business Plan Act = California Hazardous Materials Release Response Plan and Inventory Law of 1985; Cal/OSHA = California Occupational Safety and Health Administration; CalEPA = California Environmental Protection Agency; CUPA = Certified Unified Program Agency; DTSC = Department of Toxic Substances Control; NPDES = National Pollutant Discharge Elimination System; RWQCB = Regional Water Quality Control Board; Unified Program = Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

San Francisco Bay Regional Water Quality Control Board and California Department of Toxic Substances Control Cleanup Authorities

The primary agencies responsible for the cleanup of hazardous materials release sites include the San Francisco Bay RWQCB and the DTSC. The San Francisco Bay RWQCB's cleanup authority is derived from California Water Code Sections 13267 and 13304, and from State Water Resources Control Board Resolution No. 92-49, *Policies and Procedures for Investigation, Cleanup and Abatement of Discharges Under Water Code Section 13304*; Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*; and Resolution No. 88-63, *Sources of Drinking Water*. The DTSC cleanup authority is derived from 22 CCR 22, Social Security, Division 4.5, *Environmental Health Standards for the Management of Hazardous Waste*.

California Public Utilities Commission General Orders and Related Codes

General Order 95, Overhead Electric Line Construction

CPUC General Order 95 outlines rules and other requirements for the design, construction, and maintenance of overhead transmission lines. Proper application of these guidelines would help ensure adequate service and secure safety for individuals involved in the construction, maintenance, operation, or use of overhead transmission lines and to the public in general.

General Order 166, Standards for Operation, Reliability, and Safety During Emergencies and Disasters

CPUC General Order 166 aims to help ensure that jurisdictional electric utilities are prepared for emergencies and disasters to minimize damage and inconvenience to the public from electric system failures, major outages, or hazards posed by damage to electric distribution facilities. These standards require each publicly traded electric utility to prepare an emergency response plan and update the plan annually, conduct annual emergency training and exercises using the utilities emergency response plan, and coordinate emergency plans with local and state public safety agencies.

Fire Safety Rulemaking Background

In October 2007, devastating wildfires driven by strong Santa Ana winds burned hundreds of square miles in Southern California. Several of the worst wildfires were reportedly ignited by overhead utility power lines and aerial communication facilities in close proximity to power lines. In response to these wildfires, the CPUC initiated Rulemaking (R.) 08-11-005 to consider and adopt regulations to protect the public from potential fire hazards associated with overhead powerline facilities and nearby aerial communication facilities.

Beginning in 2009, the CPUC issued several decisions on R.08-11-005 that collectively adopted dozens of new fire-safety regulations. Most of these fire-safety regulations consisted of new or revised rules in General Order 95. Several of the adopted fire-safety regulations apply only to "high fire-threat areas," where there is an elevated risk for power line fires to ignite and spread rapidly. These high fire-threat areas are designated by several maps that were adopted on an interim basis. Each of the interim maps cover a different part of the state and uses its own methodology for identifying high fire-threat areas, presenting consistency and potential enforcement issues. To

address these issues, the CPUC also commenced the development of a single statewide fire-threat map to designate the areas where:

- There is an elevated risk for destructive power line fires.
- Stricter fire-safety regulations should apply.

In May 2015, the CPUC closed R.08-11-005 and initiated successor rulemaking R.15-05-006 to complete the outstanding tasks in R.08-11-005. The general scope of R.15-05-006 was to address the following matters carried over from R.08-11-005:

- Develop and adopt a statewide fire-threat map that delineates the boundaries of a new HFTD where the previously adopted regulations would apply.
- Determine the need for additional fire-safety regulations in the HFTD.
- Revise General Order 95 to include a definition and maps of the HFTD, as well as any new fire-safety regulations.

The scope and schedule for R.15-05-006 was divided into two of the following parallel tracks:

1) One track focused on the development and adoption of a statewide fire-threat map.
2) The second track focused on the identification, evaluation, and adoption of fire-safety regulations in the HFTD.

On December 21, 2017, the CPUC issued Decision 17-12-024 adopting regulations to enhance fire safety in the HFTD, effectively completing the second track of R.15-05-006. On January 19, 2018, the CPUC adopted the final CPUC Fire-Threat Map via the Safety and Enforcement Division's disposition of a Tier 1 Advice Letter. The adopted CPUC Fire-Threat Map, along with the map of Tier 1 High Hazard Zones on the U.S. Forest Service–California Department of Forestry and Fire Protection joint map of tree mortality High Hazard Zones, comprise the HFTD Map where stricter fire-safety regulations apply.

Public Resources Code

Sections 4201–4204

Public Resources Code Sections 4201–4202 require the following:

- The classification of lands within state responsibility areas in accordance with the severity of fire hazard present for the purpose of identifying measures to be taken to retard the rate of spreading and to reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life, or property.
- The classification of lands within state responsibility areas into fire hazard severity zones. Each zone shall embrace relatively homogeneous lands and shall be based on fuel loading, slope, fire weather, and other relevant factors present, including areas where winds have been identified by the department as a major cause of wildfire spread.
- The designation of fire hazard severity zones and assignation to each zone a rating reflecting the degree of severity of fire hazard that is expected to prevail in the zone.
- The periodic review of zones designated and rated pursuant to this article and, as necessary, the revision of zones or their ratings or repeal the designation of zones.

Sections 4292 and 4293

Public Resources Code Section 4292 requires a 10-foot clearance of any tree branches or ground vegetation around the base of power poles carrying more than 110 kV. The firebreak clearances required by Public Resources Code Section 4292 are applicable within an imaginary cylindrical space surrounding each pole or tower with an attached switch, fuse, transformer, or lightning arrester, as well as surrounding each dead end or corner pole. Section 4293 presents guidelines for line clearance, including a minimum of 10 feet of vegetation clearance from any conductor operating at 110 kV or higher.

3.9.2.3 Local

General Order 131-D

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its 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 Project and alternatives are described below.

Santa Clara County General Plan

The South County Joint Area Plan within the Santa Clara County General Plan (Santa Clara County 1994) includes the following policies related to hazards and hazardous materials that are relevant to the Project:

> ***SC 9.0*:** A program of regular inspections and monitoring to ensure compliance with local, state and federal regulations should be continued in order to reduce the risks associated with the use and handling of hazardous materials and wastes.
>
> ***SC 9.3*:** There should be regular inspections of those facilities which store hazardous waste on site for less than 90 days, a time period for which a hazardous materials storage permit is not required. This inspection could be enforceable via the Memorandum of Understanding between State Department of Health Services (DOHS) and County Health Department whereby the County Health Department would act as an agent of DOHS in enforcing this provision. In order to develop maximum efficiency in overall inspection programs, the Cities' Hazardous Materials Specialists and Pretreatment Inspectors may conduct inspections on behalf of the County Health Department.
>
> ***SC 9.5*:** In order to minimize potential hazards, generators of hazardous waste should be required to use on-site pretreatment prior to discharging treated waste effluent into the sewer system. The methods may include neutralization, precipitation and oxidation.
>
> ***SC 9.7*:** Vehicles and other equipment that may threaten the quality of water from leaking fuel tanks or oil spills should be removed from the site and/or repaired.
>
> ***SC 9.10*:** The transportation of hazardous materials and wastes should be monitored to reduce risks and ensure notification of South County Cities in the event of a leak or spill.

***SC 9.11*:** The South County jurisdictions should require that they receive reports from the Department of Transportation and the California Highway Patrol regarding spills or leaks on the highway.

***SC 9.12*:** If a spill occurs while transporting hazardous materials or waste in one of the Cities or the County, the other jurisdictions should be notified by that jurisdiction immediately.

***SC 9.13*:** The Cities and County should consider designating specific transportation routes for the conveyance of hazardous materials and waste, if the jurisdiction desires hazardous materials and waste to be transported on routes other than designated truck routes. Such controls should be consistent with the areawide emergency response plan prepared under AB 2185/2187.

***SC 9.15*:** To reduce the risk involved in transporting hazardous waste and to decrease the volume of waste that must be disposed of, generators of hazardous waste should be encouraged to use on-site pretreatment, such as: neutralization, precipitation and oxidation.

San José International Airport Comprehensive Land Use Plan

The proposed Skyline HVDC Terminal site is located approximately 1 mile southeast of San José Mineta International Airport and is partially located within the Airport Influence Area for the airport as delineated in the Airport Land Use Comprehensive Plan (ALUCP), adopted in 2024 (City of San José 2024a). As required by the California State Aeronautics Act (Public Utilities Code Section 21670 et seq.), the ALUCP was prepared by the Santa Clara County Airport Land Use Commission (ALUC) to provide for the orderly growth of the areas surrounding the airport and to help ensure that new land use does not affect the airport's continued operation. To support this goal, the ALUCP provides land use compatibility policies addressing aircraft noise exposure, the control of objects in navigable airspace, and the safety of persons on the ground and in aircrafts. These policies are applicable in specific areas identified using community noise equivalent level contours (noise restriction area), safety zones (safety restriction area), and imaginary airspace surfaces as defined in Code of Federal Regulations Part 77, Title 14 (FAR Part 77) (height restriction area). The FAR Part 77 height restrictions for the Project area would be 162–612 feet aboveground.

The Project is located in areas covered by the FAR Part 77 imaginary airspace surfaces for the airport, and portions of the Project are located within the community noise equivalent level contour. The proposed Skyline HVDC Terminal and the transmission lines north of East Santa Clara Street are located within the Outer Safety Zone identified in the ALUCP. Local agencies are required to help ensure that their land use plans are consistent with the FAR Part 77 regulations. Additionally, any proposed plan, project, or land use change within the Airport Influence Area must be submitted to the ALUC for review to determine whether it is consistent with the ALUCP. Applicable ALUCP noise policies are discussed further in Section 3.13, *Noise and Vibration*. Relevant ALUCP height restriction policies applicable to this analysis include the following:

***Policy H-1*:** Any structure or object that penetrates the Federal Aviation Regulations Part 77, Objects Affecting Navigable Airspace (FAR Part 77) surfaces, as illustrated in Figure 6, is presumed to be a hazard to air navigation and will be considered an incompatible land use, except in the following circumstance. If the structure or object is above the FAR Part 77 surface, the proponent may submit the project data to the FAA for

evaluation and air navigation hazard determination, in which case the FAA's determination shall prevail.

***Policy H-2*:** Any project that may exceed a FAR Part 77 surface must notify the Federal Aviation Administration (FAA) as required by FAR Part 77, Subpart B on FAA Form 7460-1, Notice of Proposed Construction or Alteration. (Notification to the FAA under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the FARs.)

***Policy T-1*:** The applicant for any proposed project anywhere in the County for construction or alteration of a structure (including antennas) higher than 200 feet above ground level shall submit to the FAA a completed copy of FAA Form 7460-1, Notice of Proposed Construction or Alteration. A copy of the submitted form shall be submitted to the Santa Clara County ALUC as well as a copy of the FAA's response to this form.

***Policy T-2*:** Any proposed project anywhere in the County for construction or alteration of a structure (including antennas) higher than 200 feet above ground level shall comply with FAR 77.13(a)(1) and shall be determined inconsistent if deemed to be a hazard by the FAA or if the ALUC determines that the project has any impact on normal aircraft operations or would increase the risk to aircraft operations.

Furthermore, since the Project is partially located within the Outer Safety Zone, the ALUCP outlines the following policies for acceptable uses and activities within these safety zones:

***Policy S-4*:** Storage of fuel or other hazardous materials shall be prohibited in the Runway Protection Zone. Above ground storage of fuel or other hazardous materials shall be prohibited in the Inner Safety Zone and Turning Safety Zone. In the Sideline Safety Zones and Outer Safety Zones, above ground storage of fuel or other hazardous materials not associated with aircraft use should be discouraged.

***Policy S-7*:** The following uses shall be prohibited in all Airport Safety Zones:

- Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.
- Any use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport.
- Any use which would generate smoke or water vapor, or which would attract large concentrations of birds, or which may otherwise negatively affect safe air navigation within the area.
- Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation, communication or navigation equipment.

ALUCP policies allow local agencies to overrule an ALUC's finding of inconsistency with an ALUCP land use plan. However, the agency must hold a public hearing, make specific findings

that the proposed action is consistent with the purposes of the ALUC statute, and approve the proposed action through a two-thirds vote of the local agency's governing body.

City of San José

Certified Unified Program Agency Program

The Certified Unified Program Agency was created by Senate Bill 1082 in 1993 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for several environmental and emergency management programs. The Certified Unified Program Agency is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The following six programs are administered locally under the state's Certified Unified Program Agency:

1) Hazardous Waste Generator Program and Hazardous Waste On-Site Treatment activities authorized under the permit-by-rule, conditionally authorized, and conditionally exempt tiers (Health and Safety Code Division 20, Chapter 6.5, and 22 CCR Division 4.5).
2) Aboveground Storage Tank Program Spill Prevention Control and Countermeasure Plan requirements (Health and Safety Code Section 25270.5[c]).
3) Underground Storage Tank Program (Health and Safety Code Division 20, Chapter 6.7 and 23 CCR Chapters 16 and 17).
4) Hazardous Materials Release Response Plans and Inventory Program (Health and Safety Code Division 20, Chapter 6.95, Article 1, and 19 CCR Sections 2620–2734).
5) California Accidental Release Prevention program (Health and Safety Code Division 20, Chapter 6.95, Article 2, and 19 CCR Sections 2735.1–2785.1).
6) Hazardous Materials Management Plans and Hazardous Materials Inventory Statement requirements (California Fire Code Sections 2701.5.1 and 2701.5.2).

The Santa Clara County Department of Environmental Health serves as the Certified Unified Program Agency for the city of San José. In addition to the Certified Unified Program Agency program, the San José Fire Department also administers a local Hazardous Materials Storage Ordinance (San José Municipal Code Chapter 17.68), which is discussed under *City of San José Municipal Code, Chapter 17.68, Hazardous Materials Storage Permit*.

City of San José Emergency Operations Plan

The Office of Emergency Management is the lead agency for the city of San José under the Standardized Emergency Management System (Municipal Code Section 8.08.030). Its purpose is to help ensure the city is prepared to respond efficiently and effectively to emergencies that threaten life, property, or the environment. The Office of Emergency Management administers and operates the Emergency Operations Center, which serves as the hub for centralized emergency management. In the event of an emergency, an on-call city Office of Emergency Services coordinator activates the Emergency Operations Center. Under such conditions, the Emergency Operations Center supports and coordinates emergency response and recovery operations; coordinates and works

with other appropriate local, state, and federal government agencies; and prepares and disseminates emergency public information, among other responsibilities (City of San José 2024b).

The city of San José adopted the current Emergency Operations Plan in 2019. The plan is an extension of the state's California Emergency Plan, and provides tasks, policies, and procedures for managing multi-agency and multi-jurisdictional emergency operations, public information functions, and resource management. The Emergency Operations Plan identifies a number of potential threats based on a hazard analysis, including earthquakes, wildland urban or interface fires, extreme weather, public health emergencies, technological and resource emergencies, hazardous material incidents, terrorism, floods, and landslides (City of San José 2024b).

The San José Fire Department's Hazardous Incident Team's emergency response unit responds to emergency calls related to hazardous materials in the city. The San José Police Department and San José Public Works Department also provide support. Along with the city's response capabilities, other responders or responsible agencies may include the California Highway Patrol, California Department of Transportation, the San Francisco Bay RWQCB, Valley Water, Bay Area Air Quality Management District, DTSC, and the California Department of Fish and Wildlife. The California Governor's Office of Emergency Services' California State Warning Center must also be notified of all significant releases or threatened releases of hazardous materials, including oil and radioactive materials (City of San José 2024b).

Envision San José 2040 General Plan

The city of San José *Envision San José 2040 General Plan* (City of San José 2024c) includes the following goals, policies, and actions related to hazards and hazardous materials that are relevant to the Project:

Hazardous Materials

Goal EC-6: Hazardous Materials. Protect the community from the risks inherent in the transport, distribution, use, storage, and disposal of hazardous materials.

***Policy EC-6.1*:** Require all users and producers of hazardous materials and wastes to clearly identify and inventory the hazardous materials that they store, use or transport in conformance with local, state and federal laws, regulations and guidelines.

***Policy EC-6.2*:** Require proper storage and use of hazardous materials and wastes to prevent leakage, potential explosions, fires, or the escape of harmful gases, and to prevent individually innocuous materials from combining to form hazardous substances, especially at the time of disposal by businesses and residences. Require proper disposal of hazardous materials and wastes at licensed facilities.

***Policy EC-6.4*:** Require all proposals for new or expanded facilities that handle hazardous materials that could impact sensitive uses off-site to include adequate mitigation to reduce identified hazardous materials impacts to less than significant levels.

***Policy EC-6.5*:** The City shall designate transportation routes to and from hazardous waste facilities as part of the permitting process in order to minimize adverse impacts on surrounding land uses and to minimize travel distances along residential and other non-industrial frontages.

***Policy EC-6.6*:** Address through environmental review all proposals for new residential, park and recreation, school, day care, hospital, church or other uses that would place a sensitive population in close proximity to sites on which hazardous materials are or are likely to be located, the likelihood of an accidental release, the risks posed to human health and for sensitive populations, and mitigation measures, if needed, to protect human health.

***Policy EC-6.7*:** Do not approve land uses and development that use hazardous materials that could impact existing residences, schools, day care facilities, community or recreation centers, senior residences, or other sensitive receptors if accidentally released without the incorporation of adequate mitigation or separation buffers between uses.

Action EC-6.8: The City will use information on file with the SCCDEH under the California Accidental Release Prevention (CalARP) Program as part of accepted Risk Management Plans to determine whether new residential, recreational, school, day care, church, hospital, seniors or medical facility developments could be exposed to substantial hazards from accidental release of airborne toxic materials from CalARP facilities.

Action EC-6.9: Adopt City guidelines for assessing possible land use compatibility and safety impacts associated with the location of sensitive uses near businesses or institutional facilities that use or store substantial quantities of hazardous materials by June 2011. The City will only approve new development with sensitive populations near sites containing hazardous materials such as toxic gases when feasible mitigation is included in the projects.

Action EC-6.12: Regulate new development on or in proximity to high pressure natural gas pipelines to promote public safety and reduce risks from land use incompatibility.

Environmental Contamination

Goal EC-7: Environmental Contamination. Protect the community and environment from exposure to hazardous soil, soil vapor, groundwater, and indoor air contamination and hazardous building materials in existing and proposed structures and developments and on public properties, such as parks and trails.

***Policy EC-7.1*:** For development and redevelopment projects, require evaluation of the proposed site's historical and present uses to determine if any potential environmental conditions exist that could adversely impact the community or environment.

***Policy EC-7.2*:** Identify existing soil, soil vapor, groundwater and indoor air contamination and mitigation for identified human health and environmental hazards to future users and provide as part of the environmental review process for all development and redevelopment projects. Mitigation measures for soil, soil vapor and groundwater contamination shall be designed to avoid adverse human health or environmental risk, in conformance with regional, state and federal laws, regulations, guidelines and standards.

***Policy EC-7.3*:** Where a property is located in proximity to known groundwater contamination with volatile organic compounds or within 1,000 feet of an active or inactive landfill, evaluate and mitigate the potential for indoor air intrusion of hazardous compounds to the satisfaction of the City's Environmental Compliance Officer and appropriate regional, state and federal agencies prior to approval of a development or redevelopment project.

***Policy EC-7.4*:** On redevelopment sites, determine the presence of hazardous building materials during the environmental review process or prior to project approval. Mitigation and remediation of hazardous building materials, such as lead paint and asbestos-containing materials, shall be implemented in accordance with state and federal laws and regulations.

***Policy EC-7.5*:** On development and redevelopment sites, require all sources of imported fill to have adequate documentation that it is clean and free of contamination and/or acceptable for the proposed land use considering appropriate environmental screening levels for contaminants. Disposal of groundwater from excavations on construction sites shall comply with local, regional, and state requirements.

Action EC-7.8: Where an environmental review process identifies the presence of hazardous materials on a proposed development site, the City will ensure that feasible mitigation measures that will satisfactorily reduce impacts to human health and safety and to the environment are required of or incorporated into the projects. This applies to hazardous materials found in the soil, groundwater, soil vapor, or in existing structures.

Action EC-7.9: Ensure coordination with the County of Santa Clara Department of Environmental Health, Regional Water Quality Control Board, Department of Toxic Substances Control or other applicable regulatory agencies, as appropriate, on projects with contaminated soil and/or groundwater or where historical or active regulatory oversight exists.

Action EC-7.10: Require review and approval of grading, erosion control and dust control plans prior to issuance of a grading permit by the Director of Public Works on sites with known soil contamination. Construction operations shall be conducted to limit the creation and dispersion of dust and sediment runoff.

Action EC-7.11: Require sampling for residual agricultural chemicals, based on the history of land use, on sites to be used for any new development or redevelopment to account for worker and community safety during construction. Mitigation to meet appropriate end use such as residential or commercial/industrial shall be provided.

Community Health, Safety, and Wellness

Goal CD-5: Community Health, Safety, and Wellness. Create great public places where the built environment creates attractive and vibrant spaces, provides a safe and healthful setting, fosters interaction among community members, and improves quality of life.

***Policy CD-5.8*:** Comply with applicable Federal Aviation Administration regulations identifying maximum heights for obstructions to promote air safety.

City of San José Municipal Code

Chapter 17.68, Hazardous Materials Storage Permit

Chapter 17.68, Hazardous Materials Storage Permit, describes the requirements for storing hazardous materials in the city of San José, which include obtaining a storage permit, developing and submitting a Hazardous Materials Management Plan, and complying with requirements for storage, transportation, monitoring, inspection, and secondary containment. The plan must contain information on responsible parties, a facility description, a facility storage map, a description of the name and quantity of all hazardous materials, and a description of separation and protection methods for stored hazardous materials, monitoring methods, and recordkeeping procedures.

Additionally, the Hazardous Materials Management Plan must include an emergency response plan that describes the availability, testing, and maintenance of emergency equipment.

3.9.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility will be responsible for implementing its measures only to that part of the Project for which it will own or be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Chapter 2, Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.9.3.1 Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measures (APMs) to reduce potential hazards, hazardous materials, and public safety impacts. The analysis assumes that the following APMs would be implemented as part of the Project.

- **APM HAZ-1: Site-Specific Spill Prevention, Control, and Countermeasure Plan.** A site-specific SPCCP shall be prepared prior to the initiation of storage of hazardous liquids on the Project site in excess of the appropriate regulatory thresholds. In the event of an accidental spill, the Project shall be equipped with secondary containment that meets SPCCP guidelines. The secondary containment shall be sufficiently sized to accommodate accidental spills. The plan shall be provided to the CPUC prior to construction for recordkeeping.
- **APM HAZ-2: Hazardous Materials Management Plan.** A HMMP shall be prepared and implemented for the Project. The plan shall be prepared in accordance with relevant state and federal guidelines and regulations (e.g., Cal/OSHA). The plan shall include the following information related to hazardous materials and waste, as applicable:
  - A list of hazardous materials present on-site during construction and operation and maintenance to be updated as needed, along with product Safety Data Sheets and other information regarding storage, application, transportation, and disposal requirements;

- A Hazardous Materials Communication (i.e., "HAZCOM") Plan;
- Assignments and responsibilities of Project health and safety roles;
- Standards for any secondary containment and countermeasures required for hazardous materials;
- Spill response procedures based on product and quantity. The procedures shall include materials to be used, location of such materials within the Project area, and disposal protocols; and
- Protocols for the management, testing, reporting, and disposal of potentially contaminated soils or groundwater observed or discovered during construction. This would include termination of work within the area of suspected contamination sampling by an OSHA-trained individual and testing at a certified laboratory.

The Project would also have lead-acid batteries to provide backup power for monitoring, alarm, protective relaying, instrumentation and control, and emergency lighting during power outages. Secondary containment shall be constructed around and under the battery racks, and the HMMP shall address containment from a battery leak.

The plan shall be provided to the CPUC prior to construction for recordkeeping. Plan updates shall be made and submitted as needed if construction activities change such that the existing plan does not adequately address the Project.

- **APM HAZ-3: Skyline Terminal Soil and Groundwater Contamination Management.** Construction activities at the Skyline Terminal (within the College Park Parcel 2 site) shall comply with the SMP[1] that was prepared as part of the Covenant for the Skyline Terminal property. This includes, but is not necessarily limited to:
  - Soil sampling before construction begins shall be conducted to identify the presence of contamination and specific contaminants.
  - Impacted soils, if encountered, shall be stockpiled on-site in approximate 100 to 250 CY volumes. The soil stockpiles shall be covered with 10-mil plastic sheeting and secured to prevent dust or runoff during storm events. All appropriate dust control and stormwater BMPs shall be implemented during the soil mitigation activities.
  - Upon completion of excavation work and confirmation sampling, the excavation shall be backfilled with the excavated soil or clean import fill. Import fill shall be tested in general accordance with DTSC requirements, prior to acceptance. Imported soil shall be placed in accordance with the Project's geotechnical engineer's recommendations.

  In addition to adherence to the SMP[1], LSPGC shall implement measures to address potentially contaminated groundwater, if encountered. If groundwater is encountered during construction at the proposed Skyline terminal site, it shall be sampled prior to disposal. If dewatering must occur, groundwater shall be pumped directly to baker tanks (or similar) portable storage tanks. The groundwater shall not be transported or disposed of until it has been tested for possible contamination. All groundwater extracted from the Skyline terminal site shall be handled, transported, and disposed according to applicable laws and regulations.

- **APM HAZ-4**: **Soil Management Plan (SMP).** A Soil Management Plan shall be prepared prior to construction that identifies specific steps necessary to properly identify, handle, treat, and dispose of potentially contaminated soils throughout the Project area where known

[1] SMP = Soil Management Plan

contamination occurs in close proximity to Project-related ground disturbance. The Soil Management Plan shall include, but not be limited to, the following requirements:

- Prior to commencement of construction activities within the 12 contaminated sites discussed above, the soil along the path of the underground alignment shall be sampled to identify any potential contaminants. The soil sampling shall include testing for specific contaminants identified in agency records.
- If sampling identifies soil contaminated above hazardous waste levels, the soil shall be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil shall require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.

In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil shall be tested, and if contaminated above hazardous waste levels, shall be contained and disposed of at a licensed waste facility.

- **APM HAZ-5: Final Induction Study and Utility Coordination**. Design and construction of the proposed transmission lines shall be coordinated with existing utility owners (as applicable) to ensure that operation of the new transmission lines shall not cause unsafe electromagnetic induction effects on any existing metallic utilities located in close proximity to the proposed transmission lines. LSPGC shall conduct a detailed induction study for all existing metallic utilities in close proximity to proposed transmission line. Where potential adverse effects are identified by the Final Induction Study, LSPGC shall coordinate with the applicable utility owner to develop appropriate mitigation measures. Final designs and mitigation strategies, if required, shall be submitted to the CPUC prior to commencement of construction of the transmission lines.

- **APM NOI-1: Vibration Monitoring for High-Vibratory Equipment Contingency Plan**. Once the final design and alignment are determined for the proposed Grove to Skyline 320 kV DC transmission line, a site survey would be conducted along segments of the proposed transmission line where construction may occur within 25 feet of existing structures to determine if any vibration-sensitive structures are located within 25 feet of vibration-inducing construction activities. Vibration-sensitive structures are those structures at least 50 years old, or generally constructed before approximately 1974. If construction with high vibratory equipment occurs within 25 feet of such structures, a Vibration Monitoring for High-vibratory Equipment Contingency Plan would be implemented. The Vibration Monitoring for High-vibratory Equipment Contingency Plan would be implemented to include the following, as necessary, to prevent vibration damage to vibration-sensitive structures:
  - Identification of vibration-sensitive structures within 25 feet of the final transmission line where high vibratory equipment is planned to be used.
  - Where such structures are identified, LSPGC would attempt to use the following measures as necessary to avoid construction vibration impacts:
  - Place operating equipment on the construction site as far as feasible from vibration-sensitive receptors.
  - Use smaller equipment to minimize vibration levels below the limits.
  - Avoid using vibratory rollers and tampers near sensitive areas.
  - Select demolition methods not involving impact tools.

If the above reduction measures do not lower anticipated vibration levels below loaded truck levels or are not feasible, a technical vibration study would be prepared by a qualified professional who verifies that there would be virtually no risk of cosmetic or structural damage.

3.9.3.2 PG&E Best Management Practices and Field Protocols

PG&E would be responsible for implementing best management practices (BMPs) related to hazards, hazardous materials, and public safety resources. The analysis assumes that the following BMPs would be implemented as part of the Project.

- **PG&E BMP HAZ-1: Oil-Filled Electrical Equipment (OFEE).** The following measures shall be followed:
  - OFEE shall be managed in accordance with ENV-3000P-02-JA01 Job Aid: Handling In-Service Electrical Equipment from the Field.
  - If during the removal/replacement of OFEE, visible evidence of an oil leak is identified (e.g., seeping, weeping, staining, sheen), contact your local EFS immediately to determine cleanup actions and regulatory reporting requirements.
  - Work must cease on all leaking pre-July 1, 1979 equipment or equipment without a non-poly-chlorinated biphenyls (PCB) blue sticker or other non-PCB indicator on its nameplate until you've made contact with your local EFS.
  - All leaking equipment must be patched, pumped, or containerized in the field so that it shall not leak during transport; taken straight back to the Service Center (i.e., stops at staging areas are prohibited); and placed in the designated returned equipment area with a completed yellow condition tag.
  - Other equipment and bushings that cannot be tested and shall be assumed > 500 ppm PCB. Contact the EFS to coordinate generation of a purchase order and contract for disposal. This equipment shall be transported by a PG&E-approved hazardous waste contractor and taken to a disposal facility.
  - Note: Do NOT transport to a PG&E waste consolidation site.
- **PG&E BMP HAZ-2: Hazardous Materials Business Plan (HMBP).** The EFS[2] shall be notified 30 days prior to a threshold exceeding hazardous material/waste being placed on-site. Threshold limits are 200 cubic feet of compressed gases (1,000 cubic feet for simple asphyxiation or the release of pressure only; carbon dioxide), 500 lbs of solids, or 55 gallons of liquids for more than 30 non-consecutive days. If required, the local county or city shall be notified of any amount of hazardous material/waste:
  - Counties: Nevada, San Bernardino (waste only), San Francisco, Santa Clara (call for city specific details), Santa Cruz, Yuba (waste only).
  - Cities: Bakersfield (waste only), Berkeley, Healdsburg, Sebastopol, Petaluma, Santa Clara (call for city specific details).
  - PG&E shall develop an HMBP as necessary.

[2] EFS = Environmental Field Specialist

- **PG&E BMP HAZ-3: Hazardous Waste Management.** This Project may involve the storage of hazardous materials, and they must be managed according to regulations and the following BMPs.
  - All releases of hazardous materials must be immediately addressed. Maintain a spill kit on-site during the length of the Project. Contact the Project EFS for spills of hazardous materials/wastes to determine if agency notifications shall be required and/or if additional resources are needed.
  - Hazardous materials, greater than 440 lbs and less than 1,001 lbs can be transported on PG&E vehicles if the proper materials of trade (MOT) shipping paper/Material Safety Data Sheet (MSDS) accompanies the load. Contact the Project EFS for additional guidance in these areas.
  - All hazardous materials containers must be marked correctly.
  - All hazardous materials signs must be displayed as required.
  - Non-saturated oily rags (to be laundered) stored in non-combustible containers.
  - Emergency equipment such as fire extinguisher, eye wash, MSDS, etc. must be available on-site.
  - Hazardous material containers must be in good condition.
  - All hazardous materials must be compatible with containers.
  - Hazardous materials containers are kept closed.
  - If there is an unauthorized release of hazardous material, contact your EFS immediately. For after-hours releases contact the Environmental Emergency Hotline at 1-800-874-4043.

  Immediately contact the local PG&E EFS and stop work if any of the following conditions occur. After hours or if the local EFS is unavailable, please call the Environmental Hotline at 800-874-4043.
  - Discharge or spill of hazardous substance.
  - If an Environmental Regulator visits the site.
  - Visually cloudy/muddy water is observed leaving the work area;
  - An underground storage tank is discovered.
  - A subsurface component related to site remediation activities (e.g., monitoring well, recovery well, injection well) is discovered. No subsurface components may be impacted.
  - If during excavation unanticipated evidence of contamination is identified (e.g., staining, odors), work must cease and when safe to do so, cover the trench with steel plates. In order to minimize impacts to public safety and the environment, place contaminated soil on a polyethylene sheet (four milliliters) and cover or place the contaminated soil in lined covered containers. Then contact your local/support EFS to determine the next steps.
  - If any subsurface components related to site remediation activities (e.g., monitoring well, recovery well, injection well) are discovered in the path of excavation, work must cease in that location and your EFS must be notified to determine the next steps. No subsurface components may be impacted.
- **PG&E BMP HAZ-4: Lead Acid Batteries.** This Project shall be generating lead-acid battery universal waste. The construction contractor or PG&E technicians shall properly manage and

dispose of universal waste and follow Lead Acid Battery Procedure ENV 4000P-05-JA05 and/or ENV 4000P-05-JA06. Contact the Project EFS for additional guidance in these areas.

Management of Undamaged (Intact) Batteries – Universal Waste

- If batteries are undamaged (i.e., intact and not leaking), they can be managed as universal waste at the nearest PG&E waste consolidation site. Remote sites shall have batteries transported and disposed of from site if quantities warrant. A PG&E-approved hazardous waste contractor transports intact batteries from a waste consolidation site to an approved universal waste handler using a non-hazardous waste manifest.
- Note: It is recommended that large station backup batteries are better shipped directly from the substation to a disposal facility rather then taken to a PG&E waste consolidation site. Coordinate with the local EFS for disposal.
- Reference ENV 4000P-05-JA05 for general information, proper labeling, transportation, storage, and accumulation time limit.

Management of Damaged or Leaking Batteries – Hazardous Waste

- Ship damaged or leaking batteries from a waste consolidation site to an approved treatment, storage, and disposal facility (TSDF) for disposal using a PG&E-approved hazardous waste contractor and a uniform hazardous waste manifest (see ENV-4000P-02-JA01 Uniform Hazardous Waste Manifest).
- Batteries must be placed in non-reactive, structurally sound, closed containers (such as plastic drum) that are adequate to prevent breakage or further damage and contain vermiculite, which can be attained at a PG&E waste consolidation site.
- Reference ENV 4000P-05-JA05 for general information, proper labeling, transportation, storage, and accumulation time limit. Transportation – Reference ENV 4000P-05-JA05.
- Transporting > 10 lbs of non-spillable batteries per vehicle from a field location to a consolidation facility requires a shipping paper (see Utility Procedure: ENV-4000P-05, Hazardous Waste Shipping Paper). Contact EFS if there is a large quantity of batteries for waste to determine handling and whether to ship from site to recycler.
- Transporting = 10 lbs of intact batteries per vehicle does not require a shipping paper. However, document the shipment in the log maintained in the consolidation site's waste storage area. Disposal – Reference ENV 4000P-05-JA06.

- **PG&E BMP HAZ-5: Lead Paint Removal**. For any physical removal, sanding, scraping, needle gunning, blasting, or welding, contact the local Safety Specialist or Paintings and Coating Department. For PG&E Contractor lead paint removal, the Contractor shall adhere to the Contract for worker health and safety. If the Project team has safety concerns prior to or during the Project, immediately contact the Safety Program Consultant.

- **PG&E BMP HAZ-6: Sulfur Hexafluoride (SF_6) Gas Material/Waste Management**. Advanced Specialty Gas (ASG) provides sole-source service in supplying, replacing, removal and recycling of SF6 in all facilities. ASG provides 24-hour service in response to events involving SF6 as well as delivery and removal of all SF6 cylinders.

  - Contact information: https://www.advancedspecialtygases.com.

  Before accessing any equipment that may contain SF6 gas byproduct waste, contact the local EFS at least two weeks in advance for assistance in arranging cleanup, transportation, and disposal.

  - PSC shall retrieve, package, label, and transport SF6 byproduct waste (i.e., fluorides of sulfur, metallic fluorides, etc.). All SF6 byproduct waste that is removed must have proper shipping papers, which could include a remote waste shipping paper or a manifest (manifests require a permanent or temporary EPA identification number).
  - SF6 cylinder tracking and facility inventory shall be managed in accordance with Utility Procedure TD-3350P-001.

- **PG&E BMP HAZ-7: Spill Prevention, Control, and Countermeasure (SPCC) Plan.** The local/support EFS shall be notified 30 days prior to an SPCC-triggering event occurs. Events that trigger an SPCCP include:
  - New storage of oil at a facility causing the total oil storage to exceed 1,320 gallons.
  - Modification to existing oil storage at a facility that contains >1,320 gallons of oil by addition or removal of oil containers >55 gallons.

  If the oil volume is contained in anything greater than 55 gallons, the SPCC Plan must be certified by a licensed engineer. SPCC containment must be installed prior to moving on-site of oil quantities requiring containment. The PM number must remain open until the local/support EFS notifies the team that the plan is certified by an engineer, and any necessary modifications are complete.

- **PG&E BMP HAZ-8: Underground Electric Cable**. Underground electric cable might require special handling and disposal as the cable may potentially be wrapped in lead or asbestos containing material, contain asbestos insulation, and/or oil for insulation. Furthermore, insulating oil used in underground cable may contain PCBs. If evidence of these hazardous materials is identified during the cable replacement, such as weeping oil from the cut end of the cable, the local EFS shall be contacted immediately to arrange for sampling, and to determine transportation and disposal requirements. A PG&E authorized hazardous waste hauler may be required to transport the cable. Arc-proofing wrap that is both friable (brittle, crisp or fragile) and non-friable must be removed by a certified abatement vendor or trained PG&E personnel (PG&E Insulation & Coatings, PSC, Bohm, ACS).

- **PG&E BMP HAZ-9: Vault Dewatering**. Vault dewatering may be required. All vault dewatering must take place in accordance with the Vault Dewatering form.

- **PG&E BMP HAZ-10: Stormwater BMP Installation**. This Project shall require an SWPPP. If the construction crew shall not be installing stormwater BMPs, it is the responsibility of the Project manager to contact the Stormwater Quality Subject Matter Expert (SME) and Environmental Lead prior to construction to request BMP support with as much lead time as possible. Thirty days is preferred. The regional Stormwater SME shall hire a contractor to install, maintain, and remove stormwater BMPs.

- **PG&E BMP HAZ-11: Construction Dewatering**. If dewatering of trenches or excavations is required, the Environmental Lead/Project EFS shall be notified at least 30 days in advance to ensure the appropriate dewatering methods are used, proper notifications are made, and, if necessary, applicable authorizations/permits are obtained. All dewatering activities must be coordinated through the Environmental Lead/Project EFS throughout the duration of the Project.

- **PG&E BMP HAZ-12: Skyline Terminal Site SMP.** PG&E construction activities that occur on the proposed Skyline Terminal property will comply with the Site Management Plan (SMP) that was prepared as part of the Covenant for the property.

3.9.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant hazards and hazardous materials impact if it would do any of the following:

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, whether the Project would 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, whether the Project would result in a safety hazard or excessive noise for people residing or working in the Project area.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

The CPUC has identified additional CEQA impact criteria that are specific to the types of projects it evaluated, which should be considered in addition to the criteria identified in the CEQA Guidelines Appendix G (CPUC 2019). The Project would also result in a significant impact related to hazards and hazardous materials if it would do any of the following:

h) Create a significant hazard to air traffic from the installation of new power lines and structures.

i) Create a significant hazard to the public or environment through the transport of heavy materials using helicopters.

j) Expose people to a significant risk of injury or death involving unexploded ordnances.

k) Expose workers or the public to excessive shock hazards.

3.9.5 Direct and Indirect Effects

3.9.5.1 Approach to Analysis

This environmental analysis evaluates the potential impacts related to hazards and hazardous materials from the construction, operation, and maintenance of the Project. It is based on site-specific investigation results, literature and database research, and the city of San José and Santa Clara County general plans. Additionally, it considers proposed construction details and potential uses and operations at the Project HVDC Terminal sites and transmission lines, as described in Chapter 2, *Project Description*.

The Project would be regulated by the laws, regulations, plans, and policies summarized in Section 3.9.2, *Regulatory Setting*. This analysis assumes that the Project would comply with applicable local, state, and federal laws and regulations. This analysis also assumes that local and state agencies would continue to enforce applicable requirements as they currently do.

After considering the Project's implementation as described in Chapter 2, *Project Description*, and compliance with the required regulatory requirements, the environmental analysis below identifies whether the defined significance thresholds would be exceeded and whether a significant impact would occur. For those impacts considered to be significant, mitigation measures are proposed to reduce these impacts.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.9.5.2 Impact Assessment

Criterion a) Whether the Project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Criterion b) Whether the Project would 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 3.9-1: The Project would involve the routine transport, use, and disposal of hazardous materials that could result in an accidental release of hazardous materials into the environment. (*Less than Significant*)

Construction

During Project construction, various construction equipment and materials, including fuels, lubricants, cleaning solvents, and chemicals, all of which are commonly used in construction, would be used. The use of fuels, oil and lubricants, solvents and cleaning solutions, cements and adhesives, paints and thinners, degreasers, cement and concrete, and asphalt mixtures, which are all commonly used in construction, would be limited. It is not likely that herbicides or pesticides would be used during construction.

The Project use of hazardous materials during construction could result in an accidental spill or leak that could cause an inadvertent release of hazardous materials, which could adversely affect construction workers, the public, and the environment. As discussed in Section 3.10.5, *Direct and Indirect Effects*, contractors would be required to prepare a stormwater pollution prevention plan for construction activities in compliance with the State Construction General Permit. The stormwater pollution prevention plan would include measures to prevent and minimize erosion and the off-site transport of sediment and other pollutants from construction activities. It would also include BMPs to help stabilize disturbed areas and reduce erosion, sedimentation, and pollutant

transport during construction. The stormwater pollution prevention plan would designate specific BMPs based upon site conditions and may include, but would not be limited to, silt fencing, straw wattles, erosion control blankets, and riprap. Additionally, the transport of hazardous materials would be regulated by the U.S. Department of Transportation, California Department of Transportation, and the California Highway Patrol. Together, state and federal agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the risk of an accidental release of hazardous materials during routine use and transportation.

All hazardous waste generated by the Project would be stored, handled, and used in accordance with the applicable regulations described in Section 3.9.2, *Regulatory Setting*. This would help ensure that hazardous materials would be transported, used, stored, and disposed of in a safe manner to protect worker safety, and to reduce the potential for a release of construction-related fuels and other hazardous materials into the environment, including stormwater and downstream receiving water bodies. Contractors would be required to prepare and implement hazardous materials business plans as mandated by the Business Plan Act. These plans would require that hazardous materials used during construction would be used properly and stored in appropriate containers with secondary containment to prevent a potential release. The California Fire Code also requires measures for the safe storage and handling of hazardous materials.

Safety Data Sheets would be made available to all crew members at the construction sites. LSPGC crews or LSPGC's construction contractor would implement proper hazardous waste management activities, which would include the preparation and implementation of a Project-specific hazardous materials business plan as specified in APM HAZ-2: Hazardous Materials Business Plan (HMBP) (see Section 3.9.3, *Applicant-proposed Measures and Best Management Practices*) and required by the Business Plan Act. The plan would include safety information regarding transport, use, and disposal of hazardous waste. All transport, use, and disposal of hazardous waste would occur in compliance with applicable local, state, and federal laws, rules, and regulations. Additionally, APM HAZ-1: Site Specific Spill Prevention, Control, and Counter Measure Plan, APM HAZ-2: Hazardous Materials Management Plan, PG&E BMP HAZ-3: Hazardous Waste Management, and PG&E BMP HAZ-7: Spill Prevention, Control, and Countermeasure (SPCC) Plan, would be implemented to prevent or reduce the discharge of hazardous materials into stormwater and drainage systems.

In the event of an accidental spill that could release hazardous materials at a Project site, local, state, and federal agencies would provide a coordinated response and assess the situation as needed. Responding agencies could include the San José Fire Department's Hazardous Incident Team, San José Police Department, San José Public Works Department, California Highway Patrol, California Department of Transportation, San Francisco Bay RWQCB, Bay Area Air Quality Management District, DTSC, California Department of Fish and Wildlife, Santa Clara County Fire Marshal's Office, and the Santa Clara County Hazardous Materials Compliance Division of the Department of Environmental Health, depending on the nature of the release.

Compliance with the laws and regulations governing the transportation, use, handling, and disposal of hazardous materials and the implementation of LSPGC's APMs and PG&E BMPs

would limit the potential for the Project to create hazardous conditions from the routine use or accidental release of hazardous materials. Therefore, with implementation of LSPGC's APMs and PG&E BMPs listed in Section 3.9.3, *Applicant-proposed Measures and Best Management Practices,* the impacts would be **less than significant** during Project construction.

Operation and Maintenance

As described in Section 2.11.2, *System Controls and Operation Staff*, LSPGC would remotely monitor the transmission lines from their control center in Austin, Texas, and by California Independent System Operator's control center in Folsom, California. Equipment malfunctions would be investigated by operation and maintenance personnel to take corrective action. LSPGC would hire one technician located in close proximity to the Project to perform routine inspections, monitoring, and repairs. LSPGC would also have two other technicians located in California for other LSPGC's projects who would assist with operation and maintenance of the Project facilities, as needed. Day-to-day management of the Project would be provided by LSPGC's asset management team from remote control centers.

As described in Section 2.11.4, *Operation and Maintenance Programs*, the Project facilities would not be occupied on a daily basis. LSPGC would hire a California-based technician to perform operation and maintenance of the Project, including transmission line repairs, overseeing outside contractors for Project maintenance, and inspecting transmission lines. A crew of two or more technicians and equipment vendor experts would visually and electrically inspect underground vaults, while technicians would periodically perform visual inspections overhead transmission lines from the ground.

Operation and maintenance would involve the use of fuels, oil and lubricants, and solvents and cleaning solutions, all of which are commonly used in maintenance activities. All hazardous waste would be stored, handled, and used in accordance with applicable regulations. Safety Data Sheets would be available to all crew members at the construction sites. LSPGC crews or LSPGC's construction contractor would implement proper hazardous waste management activities, which would include the preparation and implementation of a Project-specific hazardous materials business plan as specified in APM HAZ-2 (see Section 3.9.3, *Applicant-proposed Measures and Best Management Practices*). The plan would include safety requirement information regarding the transport, use, and disposal of hazardous waste. Additionally, all transport, use, and disposal of hazardous waste would occur in compliance with applicable laws, rules, and regulations.

Compliance with the numerous laws and regulations govern the transportation, use, handling, and disposal of hazardous materials, and LSPGC's implementation of APM HAZ-2 would limit the potential for the Project to create hazardous conditions from the routine use or accidental release of hazardous materials. Therefore, assuming compliance with these regulatory requirements and LSPGC's implementation of APM HAZ-2, the impact would be **less than significant** during operation and maintenance.

Mitigation: None required.

Criterion c) Whether the Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

Impact 3.9-2: The Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. (*Less than Significant*)

The Project would be located within 0.25 mile of nine schools. The distances of the schools to the Project are shown in Table 3.9-2. The use and transportation of hazardous materials could result in exposure or inadvertent releases, which could adversely affect children and staff at these schools. As discussed in Impact 3.9-1, all hazardous materials associated with the Project would be subject to the regulations that govern the transportation, use, handling, and disposal of hazardous materials, which would limit the potential for the Project to create hazardous conditions from the routine use or accidental release of hazardous materials.

In addition to the routine use of hazardous materials, minor spills of miscellaneous hazardous substances, such as fuel and oil, hydraulic fluid, and cleaning solvents and chemicals, could occur during construction. If such spills were to occur within 0.25 mile of a school, they could result in a significant impact. However, with the implementation of spill prevention and containment measures, APM HAZ-1, APM HAZ-2, PG&E BMP HAZ-3, and PG&E BMP HAZ-7 such spills would be limited in volume and would not migrate off-site. After implementing LSPGC's APMs, PG&E BMPs, and associated regulations, the hazardous materials impact on the schools near the Project would be less than significant.

In addition to hazardous materials, hazardous emissions resulting from the construction of the Project would include the temporary and short-term generation of diesel particulate matter (DPM) emissions from construction equipment and heavy-duty trucks. Impact 3.3-3 in Section 3.3, *Air Quality*, discusses construction emissions of DPM that could expose sensitive receptors to harmful pollutant concentrations. Furthermore, the health risk impact (cancer) from the short-term DPM emissions in the vicinity of the proposed Grove to Skyline 320 kV Transmission Line would be less than significant, as discussed in **Section 3.3.5**, *Direct and Indirect Effects*. Therefore, the impacts from DPM emissions near the nine schools in proximity to the Project would be **less than significant**.

Mitigation: None required.

Criterion d) Whether the Project would 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.

Impact 3.9-3: The Project would 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. (*Less than Significant*)

As discussed in Section 3.9.1.2, *Hazardous Materials Sites*, the Project would be located on or within 0.125 mile of Project component sites listed under Government Code Section 65962.5, referred to as the Cortese List.

Construction

Construction activities associated with the Project, including site preparation, excavation, and construction would occur on or near the previously discussed hazardous materials sites. These activities could potentially encounter hazardous materials which would create a hazard risk to construction workers, the public, or the environment.

To prevent potential health hazards to construction workers, the public, and the environment from exposure to hazardous materials from previous land uses, the Project would adhere to multiple LSPGC APMs and PG&E BMPs, detailed in Section 3.9.3, *Applicant-proposed Measures and Best Management Practices*. APM HAZ-2 would require LSPGC to create standards for employee training, hazard recognition, and hazardous materials release containment and control procedures, among other hazardous materials standards. APM HAZ-3: Skyline Terminal Soil and Groundwater Contamination Management would require compliance with the site management plan that was prepared as part of the Covenant and Environmental Restriction on Property for the proposed Skyline HVDC Terminal property, which includes soil sampling prior to construction, stockpiling of encountered impacted soils, and backfill excavations with excavated soil or clean import fill upon completion of excavation work. APM HAZ-4: Soil Management Plan (SMP) would require the preparation of a soil management plan for contaminated soil. The soil management plan would also provide guidance for the proper handling, on-site management, and disposal of impacted soil that may be encountered during construction activities. PG&E BMP HAZ-3: Hazardous Waste Management would be implemented to reduce the discharge of pollutants into stormwater from contaminated soil and highly acidic or alkaline soils by creating a protocol for the discovery of contaminated soil and promptly remediating contaminated soil.

In the event that suspected contamination or previously unidentified underground storage tanks are discovered during construction activities, DTSC or the San Francisco Bay RWQCB would be notified by LSPGC and would assume regulatory oversight for characterizing the suspect materials per their regulatory authorities (see Section 3.9.2.2, *State*). Upon confirmation of contamination, a remediation plan pursuant to California Health and Safety Code Section 25180 and approved by the appropriate oversight agency or authority must be implemented at the site.

Adherence to existing state and federal regulations and the implementation of applicable LSPGC APMs and PG&E BPMs listed in Section 3.9.3, *Applicant-proposed Measures and Best*

Management Practices, would help ensure that the potential exposure of people and the environment to existing contaminated soils would be reduced. Construction activities associated with these Project components would not be anticipated to disturb contaminated soil that would create a significant hazard to the public or the environment. Therefore, the impact would be **less than significant**.

Operation and Maintenance

As discussed in Chapter 2, *Project Description*, LSPGC would hire one technician located in close proximity to the Project to perform routine inspections, monitoring, and repairs. LSPGC would also have two other technicians located in California for LSPGC's other projects who would assist in operation and maintenance of the Project facilities, as needed. As discussed above, these activities could potentially occur in proximity to hazardous materials sites and could create a significant hazard to the public or the environment. However, any ground-disturbing activities related to operation and maintenance would be subject to the LSPGC APMs and PG&E BPMs outlined in Section 3.9.3 *Applicant-proposed Measures and Best Management Practices*, as well as existing state and federal regulations outlined in Section 3.9.2, *Regulatory Setting*. Therefore, adherence to these measures would reduce any impacts to **less than significant**.

Mitigation: None required.

Criterion e) Whether the Project would result in a safety hazard or excessive noise for people residing or working in the Project area due to it being 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.

Impact 3.9-4: The Project would not result in a safety hazard or excessive noise for people residing or working in the Project area due to it being 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. (*Less than Significant*)

As discussed in Section 3.9.1.4, *Proximity to Airports*, the Project would be constructed approximately 1 mile south of the San José Mineta International Airport, and 2.5 miles of the proposed Grove to Skyline 320 kV Transmission Line would be located within the Airport Influence Area for the San José Mineta International Airport. Accordingly, the ALUCP noise compatibility and height compatibility policies would be applicable to the Project.

With regards to the potential for excessive noise for people living and working near the Project, the Project would not involve the development of noise sensitive land uses (see Section 3.13, *Noise*). Further, the construction personnel would be exposed to the average construction activity noise, which would be far greater than the short-term aircraft overflight noise associated with the nearby airport. Therefore, there would be a **less than significant** impact from excessive noise for people residing or working in the Project area.

The FAR Part 77 sets in place height restrictions for new structures or facilities near airports, and the Project area would have height limitations of 162–612 feet aboveground. The tallest structure for the Project would be 130 feet, which is lower than the minimum height limitation. Therefore, there would be a **less than significant** impact from safety hazards for people residing or working in the area.

Mitigation: None required.

Criterion f) Whether the Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Impact 3.9-5: The Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (*Less than Significant*)

Construction

As discussed in Section 3.17, *Transportation*, construction activities for the Project may require temporary road or lane closures on public roads in residential areas. The Project would involve the movement of oversized vehicles transporting construction materials that could affect emergency vehicle access along the Project transmission lines. As discussed in Chapter 2, *Project Description*, LSPGC would obtain encroachment permits from the local jurisdictions and the California Department of Transportation, as appropriate, for lane or roadway closures. Furthermore, the Applicant would submit an application to the Federal Aviation Administration for review and approval of the construction of overhead transmission line structures. This process would necessitate further communication with the Federal Aviation Administration regarding construction crane use. There are no established evacuation routes in the Project area; however, traffic in the area may be adversely affected, which could cause a significant impact associated with the physical interference of an adopted emergency response plan.

As discussed under Impact 3.17-3, in Section 3.17, *Transportation*, LSPGC would implement APM TRA-1: Traffic Control Plan to reduce the temporary effects on emergency service provider access because of construction-related lane closures. The traffic control plan would set procedures to guide traffic, safeguard workers, provide safe passage, and minimize traffic impacts. Implementation of APM TRA-1 would also reduce the impact of physical interference of an adopted emergency response plan to a **less than significant** impact during Project construction.

Operation and Maintenance

Project operation and maintenance would involve LSPGC hiring one technician to be located in close proximity to the Project to perform routine inspections, monitoring, and repairs. LSPGC would also have two other technicians located in California for LSPGC's other projects who would assist in operation and maintenance of the Project facilities, as needed. Operation of the modified/expanded San Jose B and Metcalf substations would be performed by PG&E. LSPGC would perform monthly visual inspections at the HVDC Terminals, and PG&E would continue regular operation and maintenance and inspections at its PG&E San Jose B and Metcalf Substations. These activities would be conducted within either substation properties, access roadways, or

structure pads. Compared to existing conditions, operation and maintenance activities would have a minimal impact on traffic conditions in the area. Therefore, Project operation and maintenance would have no impact on interference with an adopted emergency response plan or emergency evacuation plan.

Mitigation: None required.

Criterion g) Whether the Project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Impact 3.9-6: The Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. (*Less than Significant*)

As discussed in Section 3.20, *Wildfire,* the Project HVDC Terminal sites and transmission lines would not be located within or near a State Responsibility Area or on lands classified as moderate or very high Fire Hazard Severity Zone.

Despite the Project not being located within a State Responsibility Area or a Fire Hazard Severity Zone of moderate or very high fire severity, there are still considerations for other factors that may increase fire risk to people or structures such as slope and wind patterns. The Project's transmission lines would be on flat terrain, and the area is characterized by mild seasonal weather with consistent and mild wind patterns, which would not contribute to a heightened fire risk for people and structures. Therefore, fire risk to people and structures would not be increased by slope or prevailing winds.

The Project would conform to LSPGC's fire safety specifications and be consistent with the California Building Code and Fire Standards. Furthermore, the Project would not be in or near a CPUC-designated high fire-threat zone, and upon completion of construction, transmission lines and substation upgrades would be consistent with LSPGC's and PG&E's standard safety procedures.

The Project's location would not increase wildfire risk or contribute to the spread of wildfire. Additionally, LSPGC's fire safety procedures and compliance with the California Building Code would help ensure that Project facilities would not exacerbate wildfire risk during construction or operation. Therefore, potential impacts from wildfire would be **less than significant.**

Mitigation: None required.

Criterion h) Whether the Project would create a significant hazard to air traffic from the installation of new power lines and structures.

The Project would not create a significant hazard to air traffic from the installation of new power lines and structure. (*No Impact*)

Project construction could create a hazard to air traffic if it would violate the height restrictions for an Airport Influence Area. About 2.5 miles of the proposed Grove to Skyline 320 kV Transmission Line would be within the Airport Influence Area for the San José Mineta International Airport. FAR Part 77 enforces height restrictions near airports, and the Project area would have height limitations of 162–612 feet aboveground. The tallest structure for the Project would be 130 feet tall; therefore, the Project could not pose a significant hazard to air traffic because the tallest portion of the Project would be shorter than the lower end of the height restriction. Therefore, there would be no impact.

Criterion i) Whether the Project would create a significant hazard to the public or environment through the transport of heavy materials using helicopters.

The Project would not use a helicopter for either the construction or operation and maintenance phase of the Project. Therefore, there would be no impact on the public or the environment from the transport of heavy materials using a helicopter. (*No Impact*)

Criterion j) Whether the Project would expose people to a significant risk of injury or death involving unexploded ordnances.

No military bases are near the transmission line, and the majority of the Project would be located within developed urban areas. There are no unexploded ordnance sites at or near the Project. Therefore, there would be no impact from unexploded ordnances. (*No Impact*)

Mitigation: None required.

Criterion k) Whether the Project would expose workers or the public to excessive shock hazards.

Impact 3.9-7: The Project would not expose workers or the public to excessive shock hazards. (*Less than Significant*)

Electrical fields caused by electrical transmission equipment can induce voltages and currents on conductive objects, such as metal roofs or buildings, fences, construction equipment, and vehicles. Overhead transmission lines are designed to limit the short circuit current, from conductive items beneath the line, to a safe level (less than 5 milliampere). When a person or animal comes in contact with a conductive object, they may experience a perceptible current or small electric shock. These small electric shocks cause no physiological harm but can be a nuisance.

Project design would follow the applicable state and federal regulations and standards to reduce shock hazards. The design would be compliant with California Occupational Safety and Health Administration regulations on electrical safety. These regulations are contained in the California Code of Regulations, Title 8. Most of the applicable electrical health and safety regulations included in Chapter 4, Subchapter 5, Electrical Safety Orders, Sections 2700–2989 are relevant to high voltage work. LSPGC and PG&E would comply these safety regulations and other applicable state

and federal regulations. Compliance with safety standards and applicable regulations would help ensure a **less than significant** impact for exposing workers or the public to excessive shock hazards during the construction, operation, or maintenance of the Project.

Mitigation: None required.

3.9.6 Cumulative Effects Analysis

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to hazards and hazardous materials could occur if the incremental impacts of the Project combined with the incremental impacts of one or more of the cumulative projects. The cumulative projects considered in this EIR are summarized in Section 3.0.3, *Approach to Cumulative Impact Analysis*. There are nine cumulative commercial development projects located within 0.5 mile of the Project site, none of which are located adjacent to the Project boundary.

As previously discussed, the Project site is not located within or near a fire hazard severity zone. Accordingly, the Project would not contribute to cumulative impacts related to this topic and are not discussed further.

The geographic area affected by the Project and its potential to contribute to cumulative impacts varies based on the environmental resource under consideration. The geographic scope of analysis for cumulative hazards and hazardous materials impacts encompasses and is limited to the Project site and its immediately adjacent area. This is because impacts relative to hazards and hazardous materials are generally site-specific and depend on the nature and extent of the hazardous materials released, and existing and future soil and groundwater conditions. For example, hazardous materials incidents tend to be limited to a localized area surrounding the immediate spill location and extent of the release and could only be cumulative if two or more hazardous materials releases spatially overlapped.

The timeframe during which the Project could contribute to cumulative hazards and hazardous materials effects includes the construction and operation and maintenance phases. For the Project, the operation and maintenance phase is permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts relative to hazardous materials are generally time-specific. Hazardous materials events could only be cumulative if two or more hazardous materials releases occurred at the same time, in addition to overlapping at the same location.

3.9.6.1 Criteria a) and b)

Impact C.3.9-1: The Project would not create a cumulatively significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials. (*Less than Significant*)

As discussed in Impact 3.9-1, use and transportation of hazardous materials during Project construction and operation and maintenance could result in exposure during routine use or an accidental spill or leak that could cause an inadvertent release of hazardous materials. This could adversely affect construction workers, the public, and the environment. However, compliance with the laws and regulations governing the transportation, use, handling, and disposal of hazardous materials and implementation of LSPGC APMs and PG&E BMPs, as listed in Impact 3.9-1, would limit the potential for the Project to create hazardous conditions from the routine use or accidental release of hazardous materials. The portions of the Project located in the proximity of hazardous materials sites could create cumulative impact, but there are no additional projects on the sites that have hazardous materials present to create a cumulative impact.

Similar to the Project, other projects in the vicinity may involve the transportation, use, and disposal of hazardous materials during construction, operation, and maintenance. All of these projects would be subject to the same regulatory requirements that govern routine transport of hazardous materials, including placarding, load weight limits, and spill prevention and response requirements. In this context, the Project's incremental impact would not combine with the incremental impacts of other projects to be cumulatively considerable. With the implementation of LSPGC APMs and PG&E BMPs, this cumulative impact would be **less than significant**.

Mitigation: None required.

3.9.6.2 Criterion c)

Impact C.3.9-2: The Project would not cause a cumulatively considerable impact resulting from the handling of or emission of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. (*Less than Significant*)

As discussed in Impact 3.9-3, the Project would be located within 0.25 mile of nine schools, as shown in Table 3.9-2. The use and transportation of hazardous materials could result in exposure or inadvertent releases, which could adversely affect children and staff at these schools. All hazardous materials associated with the Project would be subject to the regulations that govern the transportation, use, handling, and disposal of hazardous materials, which, along with implementation of LSPGC APMs, would limit the potential for the Project to create hazardous conditions from the routine use or accidental release of hazardous materials, and any spills would be limited in volume and would not migrate off-site.

Though other projects in the vicinity may incrementally contribute to the risk of exposure of sensitive receptors to hazardous materials, substances, or waste, the Project's compliance with applicable regulations and its implementation of LSPGC APMs would limit its incremental

contribution to exposure of students and staff at nearby schools. This cumulative impact would be **less than significant**.

Mitigation: None required.

3.9.6.3 Criterion d)

Impact C.3.9-3: The Project would not create a cumulatively considerable hazard to the public or the environment due to its location on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. (*Less than Significant*)

As discussed in Section 3.9.1.2, *Hazardous Materials Sites*, the Project would be located on or within 0.125 mile of Project component sites listed under Government Code Section 65962.5, referred to as the Cortese List. As discussed in Impact 3.9-3, Project construction, including site preparation and excavation, would occur on or near the previously discussed hazardous materials sites. These activities could potentially encounter hazardous materials, which would create a hazard risk to construction workers, the public, or the environment. Adherence to all existing state and federal regulations, and the implementation of LSPGC APMs and PG&E BPMs would reduce pollutant discharge to stormwater from contaminated soil and highly acidic or alkaline soils by creating a protocol for discovering and promptly remediating contaminated soil and would help ensure that potential exposure of people and the environment to existing contaminated soils would be reduced. Impact 3.9-3 could have a cumulative impact, but there are no additional cumulative projects on the hazardous materials sites to create a cumulative impact. The Project's impact would not be cumulatively considerable, and the cumulative impact would be **less than significant**.

Mitigation: None required.

3.9.6.4 Criteria e) and h)

Impact C.3.9-4: The Project would not result in a cumulatively considerable safety hazard or excessive noise for people residing or working in the Project area due to its being located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would not create a significant hazard to air traffic from the installation of new power lines and structures. (*Less than Significant*)

As discussed in Section 3.9.1.4, *Proximity to Airports*, the Project would be constructed approximately 1 mile south of the San José Mineta International Airport, and 2.5 miles of the proposed Grove to Skyline 320 kV Transmission Line would be located within the Airport Influence Area for the San José Mineta International Airport. Accordingly, the ALUCP noise compatibility and height compatibility policies would be applicable to the Project.

In regard to the potential for excessive noise for people living and working near the Project, the Project would not involve the development of noise sensitive land uses (see Section 3.13, *Noise*). Further, the construction personnel would be exposed to the average construction activity noise, which would be far greater than the short-term aircraft overflight noise associated with the nearby

airport. As discussed in Section 3.13, *Noise and Vibration*, temporary daytime and nighttime noise increases would occur from construction of the proposed Grove to Skyline 320 kV Transmission Line, partially located within the Airport Influence Area. Temporary daytime construction noise would not represent a substantial temporary increase in ambient noise. However, potential nighttime construction activities for the Project near residential sensitive receptors could result in substantial temporary in ambient noise levels. The contribution of the Project's nighttime construction noise could be cumulatively considerable for people residing in the Project area and result in a significant cumulative impact. The implementation of **LSPGC Mitigation Measure 3.13-1a: Nighttime Construction Noise Plan** would help reduce the Project's contribution to the significant cumulative impact to a less-than-significant level. With the implementation of LSPGC Mitigation Measure 3.13-a, any cumulative impacts to people residing or working in the Project area will be mitigated to **less than significant**.

The FAR Part 77 sets in place height restrictions near airports, and the Project area would have height limitations of 162–612 feet aboveground. The tallest structure for the Project would be 130 feet, which is lower than the minimum height limitation. Therefore, there would be no impact to air traffic from the installation of new power lines and structures.

Mitigation: LSPGC Mitigation Measure 3.13-a.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.13-1a would reduce the Project's contribution to the cumulative impact to **less than significant**.

3.9.6.5 Criterion f)

Impact C.3.9-5: The Project's cumulative impacts, when combined with impacts of other projects, would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (*Less than Significant*)

As discussed above, Project operation and maintenance would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Project construction activities may require temporary lane closures on public roads in residential areas. The Project would involve the movement of slow-moving oversized vehicles transporting construction materials, which could affect emergency vehicle access along the Project's transmission line. As discussed above under Impact 3.9-6 and under Impact 3.17-3, in Section 3.17, *Transportation*, LSPGC would implement APM TRA-1: Traffic Control Plan to reduce the temporary effects on emergency service provider access because of construction-related lane closures. The traffic control plan would guide traffic, safeguard workers, provide safe passage, and minimize traffic impacts. Implementation of APM TRA-1 would also reduce the impact of physical interference of an adopted emergency response.

In the event that construction of other projects in the vicinity of the Project overlaps with the Project construction activities involving road restrictions or closures for delivery of oversized loads, impacts on roadways may be cumulatively considerable. With implementation of APM TRA-1, the Project, in combination with cumulative projects, would not impair implementation

of or physically interfere with an adopted emergency response plan or emergency evacuation plan; therefore, this cumulative impact would be **less than significant**.

Mitigation: None required.

3.9.6.6 Criterion g)

Impact C.3.9-6: The Project would not contribute to a cumulatively considerable risk of exposure of people or structures, either directly or indirectly, or to a significant risk of loss, injury, or death involving wildland fires. (*Less than Significant*)

As discussed above, the Project would not increase wildfire risk or contribute to the spread of wildfire. Additionally, LSPGC's fire safety procedures would help ensure that Project facilities would not exacerbate wildfire risk during construction or operation. As the Project would not increase or contribute to risks involving wildfire, the Project's impact would not be cumulatively considerable, and the cumulative impact would be **less than significant**.

Mitigation: None required.

3.9.6.7 Criterion i)

The Project would not use a helicopter for either the construction or operation and maintenance phase of the Project. Therefore, there would be no impact on the public or the environment from the transport of heavy materials using a helicopter. As there would be no impact from the Project, it could not, in combination with other projects in the vicinity, contribute to cumulatively considerable hazards to the public or environment through the transport of heavy materials using helicopters. (*No Impact*)

3.9.6.8 Criterion j)

The Project would not expose people to a cumulatively considerable risk of injury or death involving unexploded ordnances. (*No Impact*)

No military bases are near the transmission line, and the entire Project would be located within developed urban areas. There are no unexploded ordnance sites at or near the Project. Therefore, there would be no impact from unexploded ordnances. As there would be no impact from the Project, it could not, in combination with other projects in the vicinity, contribute to a cumulatively considerable risk of injury or death involving unexploded ordnances.

3.9.6.9 Criterion k)

Impact C.3.9-7: The Project would not expose workers or the public to cumulatively considerable shock hazards. (*Less than Significant*)

As discussed above, the Project's design would follow the applicable state and federal regulations and standards associated with reducing shock hazards. The design would be compliant with California Occupational Safety and Health Administration regulations on electrical safety. These regulations are contained in California Code of Regulations, Title 8. Most of the applicable

electrical health and safety regulations can be found in Chapter 4, Subchapter 5, Electrical Safety Orders, Sections 2700–2989, which are relevant to high voltage work. Following these safety regulations and other applicable state and federal regulations would help ensure a less-than-significant impact for exposing workers or the public to excessive shock hazards during the construction, operation, or maintenance of the Project. Other projects in the vicinity would also be required to follow these state and federal regulations and standards. In the event the Project combines with other projects to contribute to shock hazards to the public, compliance with all safety regulations would reduce any risk of exposure to the public or workers to a **less-than-significant** level.

Mitigation: None required.

3.9.7 References

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3.10 Hydrology and Water Quality

This section evaluates the potential impacts of the Project on hydrology and water quality. It includes information about the physical and regulatory setting, identifies the criteria used to evaluate the significance of potential impacts and the methods used in evaluating these impacts, and the results of the impact assessment. The information and analysis presented are based in part on the hydrology and water quality section of the Proponent's Environmental Assessment (LSPGC 2025).

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions for the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. Comments pertaining to hydrology and water quality were received from individuals residing in the Project area. Specific concerns were raised about flooding in portions of the Project area near Coyote Ranch from Bailey Avenue to Coyote Ranch Road. Santa Clara Valley Water District (Valley Water) also submitted comments during the scoping period.

In its comment letter, Valley Water noted that encroachment permits would be required for work that affects Valley Water facilities, fee title property, or easements in accordance with its Water Resources Protection Ordinance. Valley Water noted that that the Project's proposed transmission lines would cross special flood hazard areas and suggested that the EIR should discuss impacts related to flooding from proposed grading or installation of aboveground infrastructure, including consistency with the city of San José's and Santa Clara County's (County's) floodplain ordinances. Valley Water is considered a responsible agency for the CEQA environmental review of the Project.

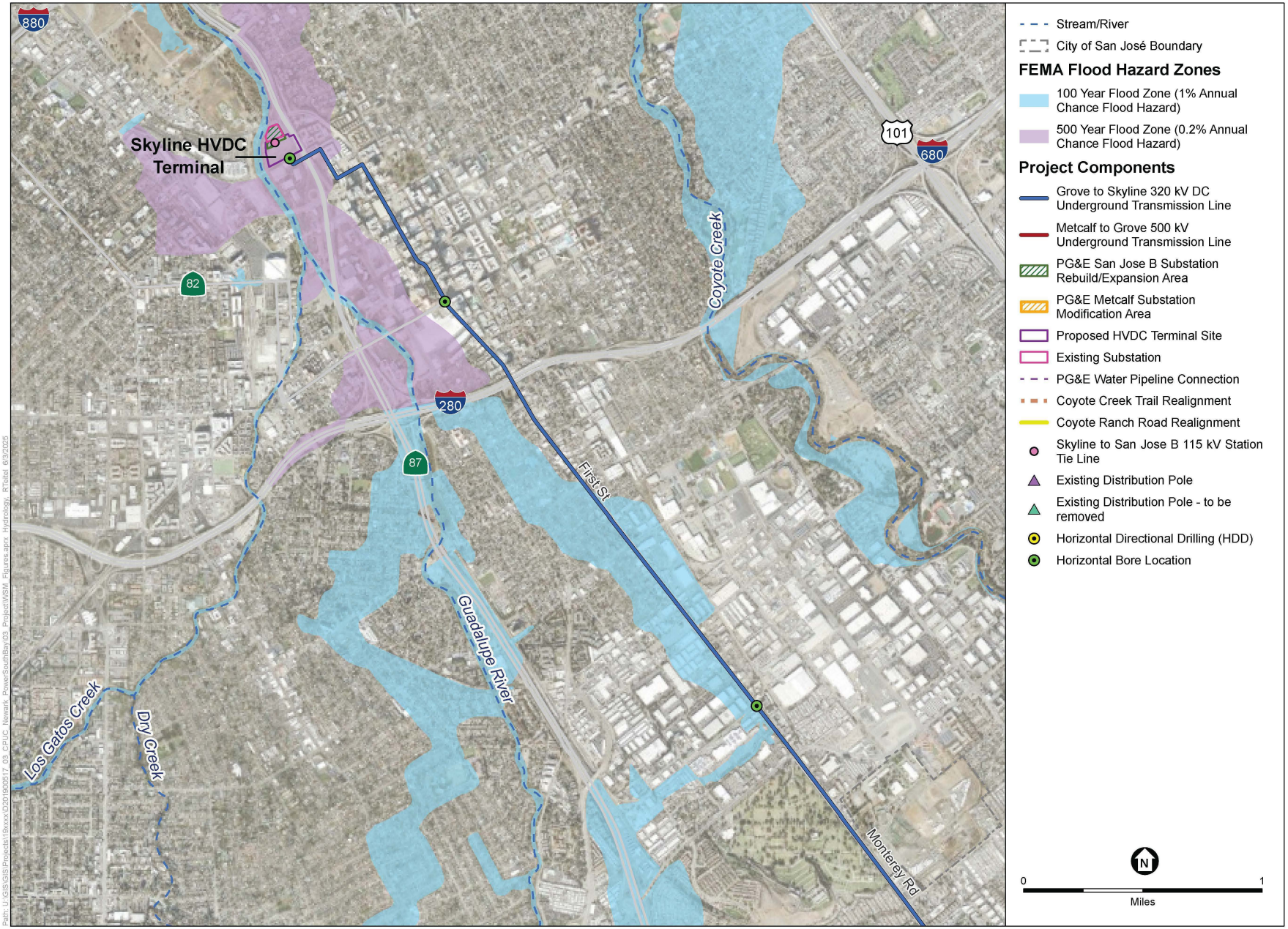
3.10.1 Environmental Setting

3.10.1.1 Regional Setting

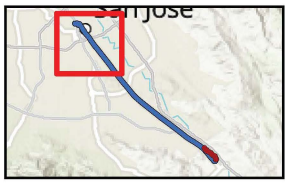
The study area for hydrology and water quality is within the Coyote Creek watershed and in the south San Francisco Bay Hydrologic Region. Surface water and groundwater quality in the region is regulated by the San Francisco Bay Regional Water Quality Control Board (RWQCB). Topography ranges from approximately 73 feet above mean sea level at the northern terminus (near where the Skyline HVDC Terminal is proposed) to 268 feet above mean sea level near the proposed Grove HVDC Terminal site.

Surface Waters

Surface waters in the Project vicinity include the Guadalupe River, Los Gatos Creek, the Coyote Alamitos Canal, Fisher Creek, the Coyote Canal, and Coyote Creek. Guadalupe River Park (trail and river) are immediately west of the existing PG&E San Jose B Substation and proposed Skyline HVDC terminal. **Figures 3.10-1a** through **3.10-1c**, *Surface Waters and Flood Zones in the Vicinity of the Project Area*, show surface waters and flood zones in the Project vicinity.



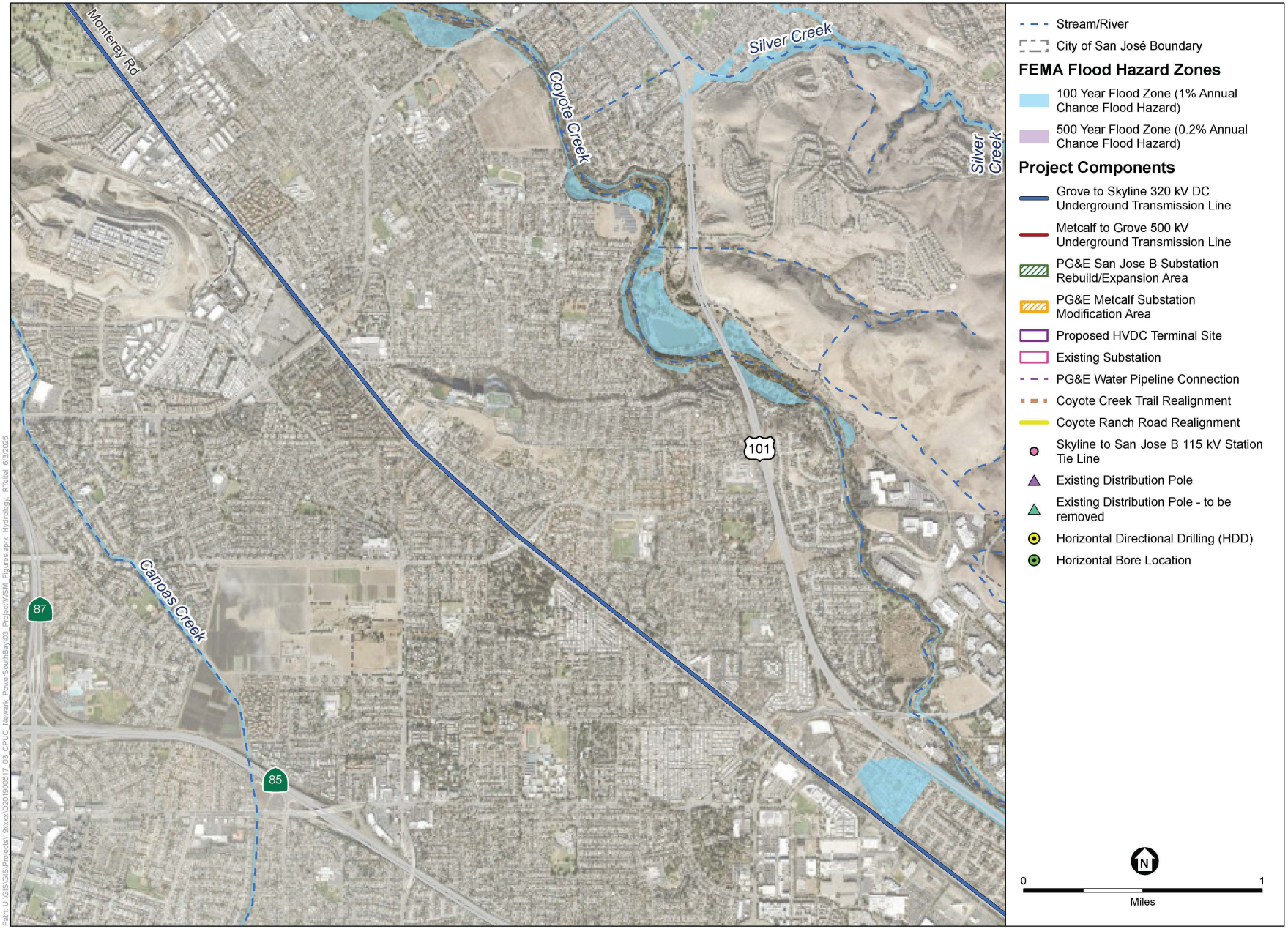
SOURCE: NHD, 2024; FEMA, 2024



Power Santa Clara Valley Project

Figure 3.10-1a
Surface Waters and Flood Zones in the Vicinity of the Project Area

ESA



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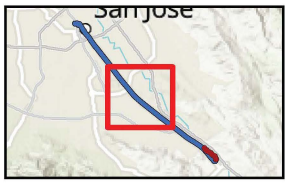
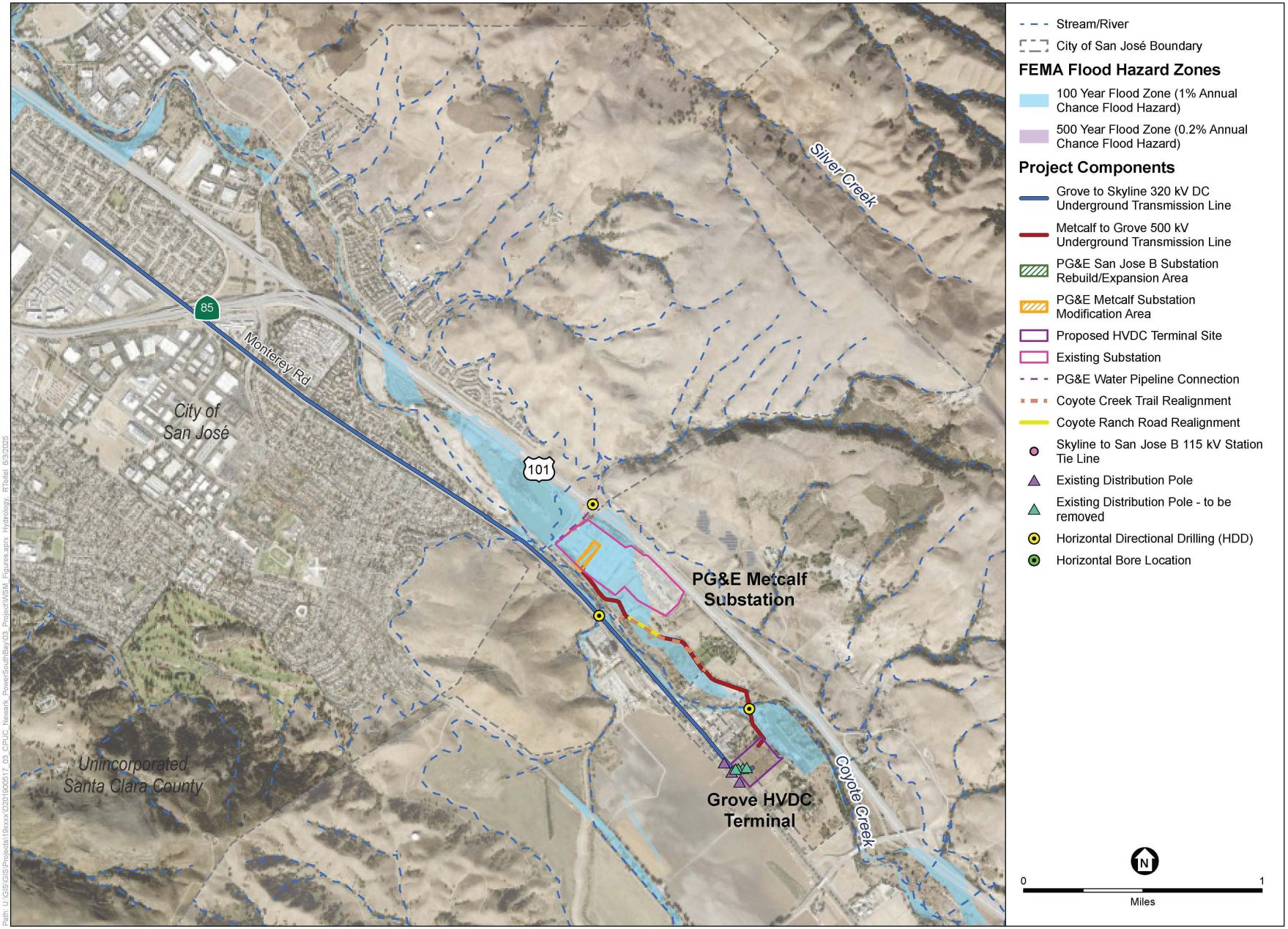


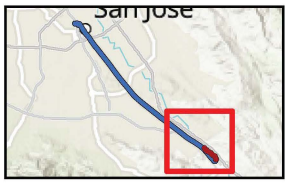
Power Santa Clara Valley Project

Figure 3.10-1b
Surface Waters and Flood Zones in the Vicinity of the Project Area

ESA



SOURCE: NHD, 2024; FEMA, 2024



Power Santa Clara Valley Project

Figure 3.10-1c
Surface Waters and Flood Zones in the Vicinity of the Project Area

ESA

The Guadalupe River watershed has a drainage area of approximately 171 square miles. The headwaters of this river originate in the eastern Santa Cruz Mountains near the summit of Loma Prieta. The main stem of the Guadalupe River begins in the Santa Clara Valley and flows northward approximately 14 miles through Los Gatos, Campbell, Santa Clara, and urban San José before discharging to South San Francisco Bay via Alviso Slough.

The Project would cross four mapped surface water features: the Coyote Alamitos Canal, Fisher Creek, the Coyote Canal, and Coyote Creek. The Coyote Alamitos Canal crosses Monterey Road just north of Metcalf Road; Fisher Creek is a tributary of Coyote Creek that crosses Monterey Road just south of the existing PG&E Metcalf Energy facility; and the Coyote Canal crosses Coyote Ranch Road (approximately 0.2 mile north-northwest of the proposed Grove HVDC Terminal's fence line) and Coyote Creek. The site of the proposed Grove HVDC Terminal is located in the Coyote Valley, a 7,400-acre alluvial plain between the Santa Cruz Mountains and the Diablo Range in southern Santa Clara County. The boundaries of the Coyote Valley are defined by the base of the Santa Cruz Mountains to the west, the base of the Diablo Range to the east, Metcalf Road in San José to the north, and the city of Morgan Hill to the south.

Technically a river, Coyote Creek has the largest watershed in Santa Clara County, draining a surface area of approximately 320 square miles. The headwaters of Coyote Creek originate on Mt. Sizer in Henry W. Coe State Park. The waterway extends more than 64 miles through Gilroy, Morgan Hill, and downtown San José before discharging into lower South San Francisco Bay. Coyote Creek is impounded by dams at Coyote Reservoir and Anderson Lake. From Anderson Lake, Coyote Creek continues northward from Morgan Hill through the Coyote Valley, the narrowest point between the Diablo Range and the Santa Cruz Mountains, receiving the tributary waters of Fisher Creek before entering San José. Also enhanced by the tributary waters of Los Gatos Creek, Coyote Creek forms the eastern boundary of downtown San José.

Table 3.10-1, *Beneficial Uses and Impairment Status of Water Bodies in the Study Area,* lists the study area's water bodies, their beneficial uses as designated in the *San Francisco Bay Basin Water Quality Control Plan* (Basin Plan), and the associated impairment status and pollutants, if any. The Guadalupe River, Coyote Creek, and Los Gatos Creek are listed as impaired water bodies for a variety of pollutants.

Groundwater

The Project would be implemented in the Santa Clara Valley Groundwater Basin, Santa Clara subbasin. The Santa Clara subbasin occupies a structural trough parallel to the northwest-trending Coast Ranges bounded by the Diablo Range and the Santa Cruz Mountains. The subbasin has a surface area of 240 square miles and extends from the groundwater divide near the city of Morgan Hill to Coyote Creek at the northern border of Santa Clara County. The substrate consists of Quaternary alluvium deposits of unconsolidated gravel, sand, silt, and clay eroded from adjacent mountains into the Santa Clara Valley. Groundwater quality in the Santa Clara subbasin has good to excellent mineral composition, and the groundwater is suitable for most beneficial uses (see Table 3.10-1).

TABLE 3.10-1
BENEFICIAL USES AND IMPAIRMENT STATUS OF WATER BODIES IN THE STUDY AREA

Water Body	Beneficial Use(s)	Impairment Status	Pollutants
Guadalupe River	Groundwater Recharge (GWR), Cold Freshwater Habitat (COLD), Migratory (MIGR), Fish Spawning (SPWN), Wildlife Habitat (WILD), Preservation of Rare and Endangered Species (RARE), Water Contact Recreation (REC-1), Noncontact Water Recreation (REC-2)	*Listed/Category 4a:* At least one beneficial use is not supported; a TMDL has been developed, and the approved implementation plan is expected to result in full attainment.	Diazinon, mercury, and trash (sources unknown) Chlordane/pesticides (source unknown) Toxicity (source: other urban runoff) Pyrethroids (source: other urban runoff/surface runoff) Bifenthrin (source: urban runoff/surface runoff)
Coyote Creek	Groundwater Recharge (GWR), Commercial and Sport Fishing (COMM), Cold Freshwater Habitat (COLD), Migratory (MIGR), Fish Spawning (SPWN), Wildlife Habitat (WILD), Preservation of Rare and Endangered Species (RARE), Water Contact Recreation (REC-1), Noncontact Water Recreation (REC-2)	*Listed/Category 5:* At least one beneficial use is not supported; a USEPA-approved TMDL has been developed 2016 (diazinon); TMDL required, expected completion date: 2029 (toxicity); impairment for trash being addressed by an action other than a TMDL.	Diazinon (source unknown) Toxicity (source unknown) Trash (source unknown) Dissolved oxygen/nutrients (source unknown) Pyrethroids (source: other urban runoff; surface runoff) Bifenthrin (source: other urban runoff; surface runoff) Cypermethrin (source unknown) Mercury (source: inactive mining, mine tailings)
Coyote Alamitos Canal	Freshwater Replenishment (FRSH), Groundwater Recharge (GWR), Cold Freshwater Habitat (COLD), Migratory (MIGR), Fish Spawning (SPWN), Wildlife Habitat (WILD), Preservation of Rare and Endangered Species (RARE), Water Contact Recreation (REC-1), Noncontact Water Recreation (REC-2)	*Listed/Category 5* (being addressed by a USEPA-approved TMDL)	Mercury (sources: inactive mining, mine tailings)
Los Gatos Creek	Municipal and Domestic Supply (MUN), Freshwater Replenishment (FRSH), Groundwater Recharge (GWR), Commercial and Sport Fishing (COMM), Cold Freshwater Habitat (COLD), Migratory (MIGR), Fish Spawning (SPWN), Warmwater Habitat (WARM), Wildlife Habitat (WILD), Preservation of Rare and Endangered Species (RARE), Water Contact Recreation (REC-1), Noncontact Water Recreation (REC-2)	*Listed/Category 5:* At least one beneficial use is not supported (TMDL-required list)	Diazinon (source unknown) Temperature, water (source unknown)
Fisher Creek (tributary to Coyote Creek)	Wildlife Habitat (WILD), Water Contact Recreation (REC-1), Noncontact Water Recreation (REC-2)	Not listed on 2024 California Integrated Report Section 303(d) list.	Not applicable.
Laguna Creek (tributary to Coyote Creek)	Warm Freshwater Habitat (WARM); Wildlife Habitat (WILD), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2)	*Listed/ Category 5*: at least one beneficial use is not supported. (TMDL required list)	Ammonia (source unknown)
Santa Clara Valley (Santa Clara or Coyote Valley) Groundwater Subbasin	Municipal and Domestic Water Supply (MUN), Industrial Process Water Supply (PROC), Industrial Water Service Supply (IND), Agricultural Water Supply (AGR)	Not applicable	Not applicable

NOTES: TMDL = total maximum daily load; USEPA = U.S. Environmental Protection Agency

SOURCES: San Francisco Bay RWQCB 2024; State Water Board 2024.

Depth to groundwater is shallow in most of the study area, ranging from 0 feet below ground surface (bgs), or at ground surface level, to approximately 100 feet bgs. Relative to Project components more specifically, depth to groundwater is 5–10 feet at the site of the proposed Skyline HVDC Terminal and the PG&E San Jose B Substation; 0–5 feet bgs at the proposed Grove HVDC Terminal site and along the alignment of the proposed Metcalf to Grove 500-kilovolt (kV) alternating current underground transmission line (Metcalf to Grove 500 kV Transmission Line); and 0–20 feet bgs at the existing PG&E Metcalf Substation. Depth to groundwater along the Project's proposed Grove to Skyline 320 kV direct current underground Transmission Line (Grove to Skyline 320 kV Transmission Line) ranges from 0 to 100 feet bgs, depending on seasonal conditions.

Groundwater Wells, Springs, and Jurisdictional Aquatic Features

Two active groundwater monitoring wells, both 30 feet deep, were identified within the proposed Skyline HVDC Terminal site. Upon confirmation of their locations, these wells would be capped consistent with regulatory requirements. An active groundwater well, used for agricultural purposes, is present on the site proposed for the Project's Grove HVDC Terminal. Water use from this well under existing conditions totals approximately 10 acre-feet (3,258,514 gallons) per year for irrigation. The well would be retained and used for construction and operational water supply. Approximately 47 active wells and many destroyed wells lie within 150 feet of the Project's proposed transmission lines (LSPGC 2025; Valley Water 2025).

Flooding

Flooding is a temporary overflow of water to land that is normally dry. Flooding can result from rain events, snowmelt, storm surge, water system breaks, and dam overflow or failures. Flooding can develop slowly, or it can begin quickly, such as through flash floods that can occur without warning. Portions of the study area are within the 100-year and 500-year flood hazard zones, as depicted in Figures 3.10-1a through 3.10-1c. The *100-year and 500-year flood zones* are defined respectively as having a 1 and 2 percent annual chance of flooding.

Tsunamis

Tsunamis are ocean waves generated by vertical movement of the sea floor, normally associated with earthquakes or volcanic eruptions. Any disturbance in the ocean that causes the displacement of large amounts of water could generate a tsunami. Tectonic plate movement displaces water on the ocean floor vertically, resulting in a wave that extends horizontally through and across the ocean (Cal OES 2025). Although areas to the north (closer to southern San Francisco Bay) could become inundated in a tsunami event, the entire Project area is not located in a tsunami risk zone (CGS 2022).

Seiches

Seiches are oscillations of enclosed or semi-enclosed bodies of water that result from seismic events, wind stress, volcanic eruptions, underwater landslides, and local basin reflections of tsunamis. Southern San Francisco Bay is a semi-enclosed body of water near the San Andreas and Hayward faults, but given its location at 5 miles from the Project area, it is too far from the Project to present a risk from a seiche event. Similarly, Anderson Lake is located approximately

6.5 miles southeast of the southernmost Project component (the proposed Grove HVDC Terminal site) and is likewise too far away to present a risk from a seiche event.

3.10.2 Regulatory Setting

3.10.2.1 Federal

Clean Water Act

The federal Clean Water Act (CWA) (United States Code Title 33, Section 1251 et seq.) expanded its predecessor legislation, the Federal Pollution Control Act, to establish the basic structure for regulating discharges of pollutants into the waters of the United States. The CWA aims to prevent, reduce, and eliminate pollution in the nation's water to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters," as described in CWA Section 101(a) (USEPA 2024a).

Clean Water Act Section 303

Section 303(d) of the CWA authorizes the U.S. Environmental Protection Agency to assist states, territories, and authorized tribes in listing impaired waters and developing total maximum daily loads (TMDLs) for impaired water bodies. A TMDL establishes the maximum amount of a given pollutant allowed in the water body and serves as the basis or planning tool for restoring its water quality (USEPA 2024b). Table 3.10-1 provides the identified beneficial uses and impairment status for water bodies in the study area.

Clean Water Act Section 401

Section 401 of the CWA requires that applicants for federal permits or licenses for activities that would result in a discharge to a water body obtain a water quality certification assuring that the proposed activity would comply with the applicable water quality standards. In California, the CWA Section 401 water quality certification permit program is managed by the applicable RWQCB to ensure that the proposed activity would not violate federal or state water quality standards. The Project would be in the jurisdiction of the San Francisco Bay RWQCB. Project activities with the potential to affect wetlands and waters of the United States would require a Section 401 water quality certification from this agency.

Clean Water Act Section 402

Section 402 of the CWA regulates point-source discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program. In California, the State Water Resources Control Board (State Water Board) oversees the NPDES program, which is administered by the RWQCBs. The program covers municipalities, industrial activities, and construction activities and provides for both general permits (which cover discharges for similar or related activities) and individual permits. The NPDES includes an industrial stormwater permitting component that covers 10 categories of industrial activity that require authorization under an NPDES industrial stormwater permit for stormwater discharges. Construction activities, also administered by the State Water Board as part of the NPDES Program, are discussed further below in the description of state regulations.

Section 402(p) of the federal CWA, as amended by the Water Quality Act of 1987, requires NPDES permits for stormwater discharges from municipal separate storm sewer systems; from stormwater discharges associated with industrial activity (including construction activities); and from designated stormwater discharges, which are considered significant contributors of pollutants to waters of the United States.

Clean Water Act Section 404

Section 404 established a permit program, administered by the U.S. Army Corps of Engineers (USACE) to regulate the discharge of dredge and fill materials into waters of the United States, including wetlands. Activities in waters of the United States that are regulated under this program include fills for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and conversion of wetlands to uplands. CWA Section 404 permits are issued by USACE.

Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act, administered by USACE, requires permits for all structures and activities in navigable waters of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work would affect the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States.

Section 14 of the Rivers and Harbors Act (United States Code Title 33, Section 408) authorizes the Secretary of the Army, on the recommendation of the USACE Chief of Engineers, to grant permission to alter a civil works project (such as a levee) if the secretary determines that the activity would not be injurious to the public interest and would not impair the project's usefulness or affect its functioning and flood protection purposes. Although no levee alteration is proposed, the Project would include four levee crossings using horizontal directional drilling (HDD) and five overhead crossings. Because the levees are under USACE jurisdiction, the crossings (if considered an encroachment) would require a Section 408 permit.

National Flood Insurance Program

The National Flood Insurance Program is a federal program administered by the Flood Insurance Administration of the Federal Emergency Management Agency. The Federal Emergency Management Agency works with states and local communities to identify flood hazard areas and published flood hazard maps of those areas. Floodplain mapping is an ongoing process incorporating land use and development changes with respect to major rivers, tributaries, and their floodplains.

National Pollutant Discharge Elimination System

The NPDES permit program was established in 1972 under the authority of the federal government through the CWA to control the discharge of pollutants from any point source into waters of the United States. As indicated previously, in California, the NPDES stormwater permitting program is administered by the State Water Board; the San Francisco Bay RWQCB implements the

program in the Project's study area for hydrology and water quality. For all water quality–related objectives for CWA purposes, including the NPDES, the state must achieve water quality standards in effect at the state level, as well as the regional level. At the regional level, the effective plan is the San Francisco Bay Basin Plan. The Basin Plan and the NPDES permits that apply to activities in the San Francisco Bay region are described below in the discussions of state and regional regulations.

3.10.2.2 State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) (Division 7 of the California Water Code) sets forth state standards for water quality. Under this law, the state adopts water quality policies, plans, and objectives that protect California's waters. The federal CWA focuses on *waters of the United States*, defined as navigable surface waters and their tributaries; the term *waters of the state* under the Porter-Cologne Act is broader, defined as "any surface water or groundwater, including saline waters within the boundaries of the state." Beneficial uses of the waters of the state are defined under the Porter-Cologne Act and periodically updated by the State Water Board and the nine RWQCBs. The Porter-Cologne Act outlines the obligations of the State Water Board and RWQCBs, including the adoption of water quality control plans and water quality objectives.[1] The Porter-Cologne Act was updated in 2023 to include provisions for environmental justice.

NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities

The State Water Board regulates stormwater discharges from construction sites because of the potential for construction activities to mobilize pollutants and then are discharged into water bodies or watersheds. Projects that include construction activities such as clearing, grading, excavation, and other ground disturbances involving 1 or more acres of soil must obtain coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). The State Water Board adopted the 2022 Construction General Permit, Order 2022-0057, on September 8, 2022 (State Water Board 2022).

The Construction General Permit regulates construction-related discharges of pollutants in stormwater to waters of the United States from construction sites that disturb 1 acre or more of land surface, or that are part of a common plan of development or sale that disturbs more than 1 acre of land surface. The permit regulates stormwater discharges from construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The Construction General Permit requires that construction sites be assigned a risk level of 1 (low), 2 (medium), or 3 (high), based both on the sediment transport risk at the site and on the risk to receiving waters during periods of soil exposure (e.g., grading and site stabilization). The

[1] The Porter-Cologne Water Quality Control Act defines *water quality objectives* as the limits or levels of water quality constituents or characteristics that are established for the reasonable protection of beneficial uses of water or for the prevention of nuisance in a specific area.

sediment risk level reflects the relative amount of sediment with the potential to be discharged to receiving water bodies and is based on the nature of the construction activities and the location of the site relative to receiving water bodies. The *receiving waters risk level* reflects the risk to the receiving waters from the sediment discharge. Depending on the risk level, construction projects could be subject to the following requirements:

- Effluent standards.
- Good site management "housekeeping."
- Non-stormwater management.
- Erosion and sediment controls.
- Run-on and runoff controls.
- Inspection, maintenance, and repair.
- Monitoring and reporting requirements.

The Construction General Permit requires the development and implementation of a stormwater pollution prevention plan (SWPPP). The SWPPP must be prepared before construction begins. It must list specific best management practices (BMPs) that the applicant would use to prevent sediment and pollutants from contacting stormwater from moving off-site into receiving waters, and must identify where they would be placed. The SWPPP BMPs fall into several categories, including erosion control, sediment control, waste management, and good housekeeping. They are intended to protect surface water quality by preventing eroded soil and construction-related pollutants from migrating off-site from the construction area.

The SWPPP must contain a site map(s) that delineates the proposed construction work area, existing and proposed buildings, parcel boundaries, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project area. Under the provisions of the Construction General Permit, all SWPPP BMPs must undergo routine inspection. In addition, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if any BMPs fail; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

Examples of typical construction SWPPP BMPs include scheduling or limiting certain activities to dry periods, installing sediment barriers such as silt fence and fiber rolls, and maintaining equipment and vehicles used for construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, vehicle and equipment washing and fueling. The Construction General Permit also sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from the site following construction).

In the Project area, the Construction General Permit is implemented and enforced by the San Francisco Bay RWQCB, which administers the stormwater permitting program. Dischargers must submit a notice of intent and permit registration documents electronically to obtain coverage under the Construction General Permit. Dischargers are to notify the San Francisco Bay RWQCB of violations or incidents of noncompliance, and must submit annual reports identifying deficiencies in the SWPPP BMPs and explaining how the deficiencies were corrected. The risk assessment and SWPPP must be prepared by a State Qualified SWPPP Developer, and implementation of the SWPPP must be overseen by a State Qualified SWPPP Practitioner. A legally responsible person,

who is legally authorized to sign and certify permit registration documents, is responsible for obtaining coverage under the permit (State Water Board 2022).

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) of 2014 authorizes local agencies to manage groundwater in a sustainable manner, while allowing for limited state intervention when necessary to protect groundwater resources. The SGMA established a definition for *sustainable groundwater management* and established a framework for local agencies to develop plans and implement strategies to sustainably manage groundwater resources. The law prioritizes groundwater basins with major sustainability challenges (ranked as high- and medium-priority) and sets a 20-year timeline for implementation.

The initial basin prioritization under the SGMA uses the prioritization conducted by the California Department of Water Resources (DWR) in 2014 under the California Statewide Groundwater Elevation Monitoring program. The SGMA requires that a groundwater sustainability agency be established to develop and implement a groundwater sustainability plan to manage and use groundwater in a sustainable manner during the planning and implementation horizon without causing "undesirable results," defined as follows:

- Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply.
- Significant and unreasonable reduction of groundwater storage.
- Significant and unreasonable seawater intrusion.
- Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.
- Significant and unreasonable land subsidence that substantially interferes with surface land uses.
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

In basins designated by DWR as medium or high priority, local public agencies and groundwater sustainability agencies must develop and implement a groundwater sustainability plans or alternative plans. DWR identified the Santa Clara and Llagas subbasins as high-priority but not critically overdrafted basins (Valley Water 2021). Valley Water is the effective groundwater sustainability agency for the Santa Clara Groundwater Basin, Santa Clara subbasin, where the Project would be located. The Groundwater Management Plan for the Santa Clara and Llagas subbasins is the effective alternative plan, as described below in the discussion of regional and local regulations.

Executive Order N-7-22 and Executive Order N-3-23

In March 2022, in response to extreme and expanding drought conditions in California, Governor Gavin Newsom issued Executive Order N-7-22; the order was superseded by Executive Order N-3-23 in February 2023. Among other water resource considerations, Executive Order N-3-23 prohibits counties, cities, and other public agencies from approving permits for either the

construction of new groundwater wells or the alteration of existing wells that are within an SGMA-regulated medium- or high-priority groundwater basin unless:

(1) The groundwater sustainability agency managing the basin (in the case of the Project, Valley Water) verifies in writing that the proposed groundwater extractions:
   (a) Would be consistent with any applicable groundwater sustainability plan, and
   (b) Would not decrease the likelihood of achieving a sustainability goal for the basin; and
(2) The well-permitting agency determines that extraction of groundwater from the proposed or modified well is not likely to:
   (a) Interfere with the production and functioning of existing nearby wells, and
   (b) Cause subsidence that would adversely affect or damage nearby infrastructure.

Because the activity would occur within the Santa Clara subbasin (a medium- or high-priority groundwater subbasin), the proposed capping of groundwater monitoring well(s) on the site of the proposed Skyline HVDC Terminal may be subject to the provisions of Executive Order N-3-23, thus requiring consultation with Valley Water and the city of San José before well alteration.

3.10.2.3 Regional and Local

The Project would be located in the city of San José and in unincorporated Santa Clara County. CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to hydrology and water quality that would otherwise be relevant to the Project and alternatives are described below.

Santa Clara County

Santa Clara County General Plan

The Resource Conservation chapter of the Santa Clara County General Plan contains the following policies pertinent to hydrology and water quality (Santa Clara County 1994).

> ***Policy C-RC 18*:** Water quality countywide should be maintained and improved where necessary to ensure the safety of water supply resources for the population and the preservation of important water environments and habitat areas.
>
> ***Policy C-RC-19*:** The strategies for maintaining and improving water quality on a countywide basis, in addition to ongoing point source regulation, should include:
>
> a) Effective non-point source pollution control;
>
> b) Restoration of wetlands, riparian areas, and other habitats which serve to improve Bay water quality; and
>
> c) Comprehensive watershed management plans and "best management practices" (BMPs).

***Policy C-RC 20*:** Adequate safeguards for water resources and habitats should be developed and enforced to avoid or minimize water pollution of various kinds, including:

a) erosion and sedimentation;

b) organic matter and wastes;

c) pesticides and herbicides;

d) effluent from inadequately functioning septic systems;

e) effluent from municipal wastewater treatment plants;

f) chemicals used in industrial and commercial activities and processes;

g) industrial wastewater discharges;

h) hazardous wastes; and

i) non-point source pollution.

Santa Clara County Floodplain Ordinance

Under the County Floodplain Ordinance, the Department of Planning and Development is the floodplain administrator, responsible for overseeing development permits and encroachments to determine that sites are reasonably safe from flooding. Within an adopted regulatory floodway, the County must prohibit encroachment—fill, new construction, substantial improvements, or other development—unless a registered civil engineer certifies that the proposed encroachment would not result in any increase in flood levels during the base flood discharge (Santa Clara County 2025). Portions of the Metcalf to Grove 500 kV Transmission Line and PG&E interconnection would lie within the 100-year flood hazard zone and would be close to the regulatory floodway. The Project components on Santa Clara County lands would be subject to (grading and drainage) review and approval by the County as part of the encroachment permit process.

City of San José General Plan

Envision San José 2040, adopted November 1, 2011 (as amended October 24, 2024), is the current general plan for San José (City of San José 2024). The following goals and policies pertain to water quality.

Goal MS-20: Water Quality. Ensure that all water in San José is of the highest quality appropriate for its intended use.

***Policy MS-20.1*:** Lead through advocacy with local, regional and state agencies to ensure the protection and enhancement of the quality of San José's water sources.

***Policy MS-20.2*:** Avoid locating new development or authorizing activities with the potential to negatively impact groundwater quality in areas that have been identified as having a high degree of aquifer vulnerability by the Santa Clara Valley Water District or other authoritative public agency.

***Policy MS-20.3*:** Protect groundwater as a water supply source through flood protection measures and the use of stormwater infiltration practices that protect groundwater quality. In the event percolation facilities are modified for infrastructure projects, replacement percolation capacity will be provided.

Santa Clara Valley Water District

Water Resources Protection Ordinance

Among the purposes of Valley Water's Water Resources Protection Ordinance is to provide a reliable supply of healthy and clean water; reduce the potential for flood damages; and protect, enhance, and restore natural resources of streams and watersheds. Under this ordinance, an encroachment permit from Valley Water, subject to conditions of approval, would be required for any work that affects Valley Water facilities or work within its fee title property and easements (Valley Water 2006a). The Project's proposed Metcalf to Grove 500 kV Transmission Line across Coyote Creek and proposed Skyline HVDC Terminal site near the Guadalupe River would require an encroachment permit. Because Valley Water permitting is considered a discretionary action under CEQA, Valley Water is considered a Responsible Agency for CEQA purposes.

Water Resources Protection Manual

Valley Water adopted the Water Resources Protection Manual in 2006 in collaboration with the city of Santa Clara and Santa Clara County and resource agencies to support the evaluation of encroachment permit applications and establish conditions for the protection of water resources (Valley Water 2006b). The manual contains requirements, recommendations, and design standards related to the protection of riparian vegetation, streambank protection, erosion control, levee and pipeline protection, and utility crossings under creeks, among other topics.

Groundwater Management Plan for the Santa Clara and Llagas Subbasins

Valley Water adopted the 2016 *Groundwater Management Plan for the Santa Clara and Llagas Subbasins* (GWMP), which describes a comprehensive framework for groundwater management including basin management objectives, strategies, groundwater management programs, and outcome measures. In 2019, DWR approved the 2016 GWMP as an alternative plan, finding that it satisfies the objectives of the SGMA. The 2021 GWMP is the first required 5-year update to the initial plan, which expands and updates technical information provided in the 2016 GWMP (Valley Water 2021). The basin sustainability goals, as identified in the 2021 GWMP, are as follows:

- Manage groundwater to ensure sustainable supplies and avoid land subsidence.
- Aggressively protect groundwater from the threat of contamination.

Santa Clara Valley Urban Runoff Pollution Prevention Program

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) applies to 13 cities and towns in the Santa Clara Valley and to Santa Clara County and Valley Water, which share a common NPDES municipal regional stormwater permit (Municipal Regional Permit) to discharge stormwater to South San Francisco Bay. The SCVURPPP and its member agencies implement pollution prevention, source control, monitoring, and outreach to reduce pollution in stormwater runoff, thus protecting the water quality and beneficial uses of San Francisco Bay and the Santa Clara Valley's creeks and rivers. This pollution prevention and regional NPDES discharge permit program recognizes that construction management practices are key to effectively preventing construction site discharges into storm drains. If not managed properly, pollutants such as sediment from soil erosion, materials (solvents, concrete), spilled oil, fuel, and

other fluids from vehicles and construction equipment may be picked up by stormwater runoff and flow into storm drains, local waterways, and San Francisco Bay.

To prevent construction site pollutants from being discharged into storm drains, SCVURPPP member agencies (among them the Santa Clara County and the City of San José) implement construction site inspection and control programs. A checklist was developed to educate the public and the construction sector about how to properly implement stormwater BMPs to minimize water quality violations. Among the categories of suggested BMPs are those related to materials, waste, and sediment management; equipment management and spill control; earthmoving; concrete management and dewatering; paving and asphalt work; and paint cleanup and removal. Storm drain polluters with documented water quality violations may be liable for fines of up to $10,000 per day (SCVURPPP 2024). The effective municipal regional stormwater NPDES permit (Order No. R2-2022-0018; NPDES Permit No. CAS612008) was reissued in 2022 (SFRWQCB 2022).

The Project's road realignment, including restoration of gutters, curbs, and sidewalks, would be considered a "regulated project" subject to stormwater treatment design (Provision C.3).

3.10.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility would be responsible for implementing its measures only for that part of the Project that it would own or for which it would be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the PG&E San Jose B Substation to a splice vault located at the PG&E Metcalf Substation. Specifically, at the northern end of the Project area, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the PG&E San Jose B Substation. At the southern end of the Project area, LSPGC's scope would stop at a splice vault located at the western property line of the PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the portion of the Project involving modifications within the existing PG&E San Jose B and Metcalf substations. At the PG&E San Jose B Substation, PG&E would be responsible for the work starting from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E would be responsible for the work starting from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.10.3.1 Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measure (APMs) to reduce potential impacts on hydrology and water quality. The analysis assumes that the following

APMs (among others listed in Table 2-12, *Applicant-proposed Measures*) would be implemented by LSPGC as part of their work for the Project.

- **APM WQ-1: Groundwater Dewatering and Discharge Measures.** Groundwater, if encountered during construction, shall be handled and discharged in accordance with all state and federal regulations including the following:
  - Recovered groundwater shall be contained on-site and tested prior to discharge;
  - When testing determines water is suitable for land application, discharge may be applied to flat, vegetated, upland areas, used for dust control, or used in other suitable construction operations;
  - Land application shall be made in a manner that discharge does not result in substantial erosion;
  - Water unsuitable for land application shall be disposed of at an appropriately permitted facility; and
  - Discharge to surface waters or storm drains may occur only if permitted by the agency(ies) with jurisdiction over the resource (e.g., USACE, RWQCB, and/or CDFW, as applicable).

3.10.3.2 PG&E Best Management Practices and Field Protocols

No PG&E best management practices or field protocols have been proposed to specifically reduce potential impacts on hydrology and water quality.

3.10.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant impact on hydrology and water quality if it would do any of the following:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

   i) result in substantial erosion or siltation on- or off-site;

   ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

   iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

   iv) impede or redirect flood flows.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.10.5 Direct and Indirect Effects

3.10.5.1 Approach to Analysis

The following analysis considers the potential impacts of Project construction and operation and maintenance on hydrology and water quality, including changes to drainage patterns and other effects. To reduce potential effects, LSPGC has committed to implementing various measures (see the full list of APMs provided in Table 2-13 and APMs related to hydrology and water quality in Section 3.10.3) as part of the LSPGC portion of the Project. Additionally, PG&E would implement BMPs and FPs (provided in Table 2-14) to reduce potential effects associated with proposed works within its facilities (described in Section 2.6.3).

The analysis assumes that because more than 1 acre of land would be disturbed during construction, the Project would obtain discharge coverage under the Construction General Permit and would implement a site-specific SWPPP. The analysis assumes that the Project would be regulated by the various laws, regulations, and policies summarized in Section 3.10.2, *Regulatory Setting*. Note that Project compliance with the applicable federal, state, and local laws and regulations is often a condition of permit approval and is assumed for analysis purposes. This analysis also assumes that such agencies would continue to enforce applicable requirements to before and during Project implementation.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.10.5.2 Impact Assessment

Criterion a) Whether the Project would violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality.

Impact 3.10-1: The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. (*Less than Significant*)

Construction

An impact would occur if proposed construction activity were to release sediment or other pollutants into surface waters or groundwater, resulting in a violation of water quality or discharge requirements. As described in Section 3.10.1, the Project is proposed close to or across surface waters of the Guadalupe River, Los Gatos Creek, the Coyote Alamitos Canal, Fisher Creek, the Coyote Canal, and Coyote Creek. Additionally, as noted in Section 3.10.1, *Environmental Setting*, groundwater is relatively shallow across the study area. Ground disturbance during Project construction activities could degrade surface waters or groundwater either by introducing sediment and other pollutants into water or by mobilizing existing sediment and other pollutants that may be present at the Project sites.

During construction, ground disturbance would result from the use of equipment and vehicles in unpaved staging and work areas (listed in Table 2-4). Site work at the proposed HVDC terminals would entail vegetation clearance (including tree removal), grading, excavation, earth moving, trenching, development of new access routes, and placement of gravel and crushed rock, among other soil disturbances. Construction of the Skyline to San Jose B 230 kV alternating current overhead transmission tie line would involve installing termination riser structures at the HVDC Terminals and substation sites, which would require drilling for concrete pier foundations as described in Section 2.8.4, *Aboveground Transmission Line Construction*.

As discussed in Chapter 2, *Project Description* (Section 2.8.8, *Dust, Erosion, and Runoff Controls*), because the Project would disturb more than 1 acre of soil, a SWPPP would be implemented in accordance with the Construction General Permit (Order No. WQ 2022-0057-DWQ). The SWPPP would include measures to prevent and minimize erosion and the off-site transport of sediment and other pollutants from construction activities. The SWPPP would include BMPs that would be followed during construction and would help stabilize disturbed areas and reduce erosion, sedimentation, and other pollutant transport.

The SWPPP would designate specific BMPs based on site conditions; however, SWPPP BMPs that would be installed may include measures such as the use of silt fencing, straw wattles, erosion control blankets, and storm drain protection devices. SWPPP BMPs also include good housekeeping management actions such as proper collection of saw-cutting residues/slurry and limits on discharging dust control water into storm drains. Implementation of the SWPPP BMPs would limit runoff and the associated mobilization of sediment and other pollutants into municipal stormwater collection systems. Typically, a SWPPP also contains requirements to maintain good housekeeping at the construction site (including daily trash removal).

The Project would be a regulated project under the NPDES Municipal Regional Permit. Therefore, construction activities would also be subject to site inspection by member agencies—the city of San José, Santa Clara County, and Valley Water—to ensure that the activities are consistent with the terms of the Municipal Regional Permit. With appropriate site management and other BMPs implemented as part of the SWPPP, construction activities would not compromise beneficial uses or interfere with water quality objectives for the listed waterways (noted in Table 3.10-1, *Beneficial Uses and Impairment Status of Water Bodies in the Study Area*).

As described in Section 3.10.3, LSPGC has proposed various measures (the LSPGC APMs listed in Table 2-13) that would also reduce the potential for a release of sediment and other pollutants that would otherwise degrade surface water or groundwater. For example:

- LSPGC APM BIO-1 requires the restoration of areas temporarily disturbed during construction. Areas temporarily disturbed by grading, augering, or equipment movement would be restored to their original (preconstruction) contours and drainage patterns.
- LSPGC APM BIO-4 includes construction restrictions in all sensitive areas: creeks, rivers, wetlands, and riparian areas, and special-status species habitats. These areas would be clearly marked before the start of construction to restrict construction activities and equipment from entering these areas, except as necessary for construction activities, which would minimize direct impacts on water resources.

- LSPGC APM GEO-1 contains provisions to minimize vegetation removal and soil disturbance, which would alleviate indirect effects on water quality.
- LSPGC APM HAZ-1 requires that a site-specific spill control and countermeasures plan be prepared before storage of hazardous liquids on the Project site. The requirements for secondary containment of such substances as transformer mineral oils would help to reduce the release of contaminants.
- LSPGC APM HAZ-2 specifies that a hazardous materials management plan be prepared and implemented for the Project in accordance with relevant state and federal guidelines and regulations. Additionally, BMPs and FPs would be implemented by PG&E for its construction activities and interconnections related to the PG&E San Jose B Substation.

Construction of the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV Transmission Line, which are both underground, would include a ground disturbance depth of 50 feet for the shaft foundations for HVDC Terminal infrastructure and approximately 100 feet for piles. An impact could also occur if groundwater contamination were to result from such activities. Because of the shallow groundwater levels at both proposed HVDC Terminal sites, measures may be required to protect groundwater quality during construction. LSPGC APM WQ-1 contains specific requirements for the handling and discharge of groundwater in the event that it is encountered during construction. Among the APM WQ-1 requirements are containment and testing of the groundwater before discharge; restrictions on the discharge of water unsuitable for land application; and the stipulated condition that discharge to surface waters or storm drains may occur only if permitted by the agencies with jurisdiction over the resource.

The proposed Grove to Skyline 320 kV Transmission Line would require one HDD crossing under Fisher Creek. The proposed Metcalf to Grove 500 kV transmission line would include one HDD crossing under Coyote Creek. The Coyote Creek trenchless crossing is shown in Figure 2-3d. HDD activities must address specific water quality considerations to safely manage cleaning and recirculation of fluid containment to ensure that inadvertent releases (or frac-outs) do not occur.

Additionally, PG&E has proposed an HDD crossing under U.S. Highway 101 to facilitate the placement of the proposed PG&E waterline while avoiding the highway. The associated HDD activities would be conducted in accordance with all regulatory requirements to prevent frac-outs or other inadvertent releases of drilling fluids. PG&E would also adhere to dewatering protocols to prevent the release of contaminants as outlined in PG&E BMP HAZ-11 during construction of the PG&E San Jose B and Metcalf substation modifications, interconnections, and ancillary facilities such as the Metcalf water line.

The Project would employ specific construction methods (jack and bore, micro-tunneling, and HDD) designed to avoid direct effects on surface waters and would implement LSPGC APMs and PG&E BMPs to limit disturbance and associated indirect effects. With the implementation of LSPGC APMs and PG&E BMPs, potential impacts from Project construction related to this criterion would be **less than significant**.

Operation and Maintenance

As described in Section 2.10.3, *Demobilization and Site Restoration,* all temporarily disturbed work areas would be restored to their preconstruction conditions at the conclusion of construction. Temporary construction work areas, including staging areas, disturbed by grading, drilling, trenching, or equipment use would be restored to their original contours and drainage patterns,. Restoration could include recontouring, reseeding, and planting replacement vegetation. Erosion control measures may be required and would also be implemented in accordance with the Project SWPPP and LSPGC APMs (as listed in Table 2-13). Specifically, LSPGC APM HAZ-1 would limit the release of pollutants through planned spill control and countermeasures and would provide for secondary containment of hazardous substances during Project operation and maintenance. LSPGC APM HAZ-2 would ensure that Project sites are managed in accordance with a hazardous materials management plan, consistent with applicable regulatory standards. Erosion control measures would be maintained in compliance with SWPPP requirements and post-construction permit conditions.

Once operational, the Project would not result in ongoing soil disturbances such that ongoing water quality impacts would occur. Maintenance would consist of transmission line inspections and as-required repairs. Regular inspections of access roads would also occur to monitor and manage vegetation growth, road conditions, ditch clearance, and drainage. The impacts associated with such operation and maintenance activities would be **less than significant**.

Mitigation: None required.

Criterion b) Whether the Project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.

Impact 3.10-2: The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. (*Less than Significant*)

Construction

As described in Section 2.8.9, *Water Use and Dewatering,* water would be used during construction for dust suppression, compaction, and site development activities such as concrete work. Up to 16 million gallons of water, equivalent to approximately 50 acre-feet, would be used for such purposes during the estimated 24-month period when these construction phases would occur. As described in additional detail in Section 3.19, *Utilities and Service Systems*, multiple sources of water are potentially available for Project construction use, including reclaimed tertiary treated water, municipal (potable) surface water, and groundwater supplies. Because of the variety of source options available to meet the Project's construction water requirements, the Project would not place water demands on the groundwater resources that would impede sustainable groundwater management of the Santa Clara subbasin. Therefore, there would be no impediment to sustainable groundwater management and the impact during construction would be **less than significant**.

Operation and Maintenance

A consideration of potential groundwater impacts includes both the direct effects of the Project's groundwater demand relative to sustainable management of the groundwater basin and the indirect effects of groundwater recharge, generally associated with the Project's change in surface conditions on the landscape.

The Project would involve primarily electrical infrastructure operations. Other than the PG&E water source upgrades, described in Section 2.6.3, *Existing PG&E Substations,* no water lines or other appurtenances would be required. Therefore, other than for the PG&E facilities, Project expected operational water demand would be negligible.

Once constructed, the Project would require minimal amounts of water to facilitate the restoration of temporarily affected areas. These requirements would include temporary irrigation for basic site restoration and effective revegetation, where required. As noted in Section 2.8.9, *Water Use and Dewatering*, approximately 150 trees would be retained at the site of the proposed Grove HVDC Terminal along Monterey Road. Groundwater from existing on-site sources (an agricultural well) would continue to be used to irrigate the remaining trees. Because of the tree removal proposed as part of site development, irrigation needs at the Project's Grove HVDC Terminal site would be reduced by approximately 95 percent. Because of the net reduction in groundwater use and the Project's minimal operational demand for groundwater, the Project would not substantially decrease groundwater supplies.

Most site alteration that would result in added impervious surfaces would be associated with development of the Skyline and Grove HVDC Terminals, which would result in permanent disturbance footprints of approximately 5.2 acres and 6.3 acres, respectively. The analysis assumes that because the permanent footprint at each of these sites would be a capped gravel layer, the HVDC terminal sites would not allow for groundwater recharge once constructed. Additional impervious surfaces would include 9,000 square feet of new paved access roads, concrete foundations and support structures for overhead lines, and vault structures for underground lines. Stormwater falling on new impervious surfaces would flow to adjacent unpaved areas and infiltrate as it does under existing conditions. The estimated additional impervious surface area for the Project's proposed HVDC Terminal sites and access roads would not substantially interfere with the recharge capacity of the Santa Clara groundwater subbasin to the extent that sustainable groundwater management would be compromised. Therefore, the impact would be **less than significant**.

Mitigation: None required.

Criterion c) Whether the Project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would: result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.

The Project would not alter the course of any of the surface waters crossed, as avoidance methods such as jack and bore, micro-tunneling, and HDD are proposed at all water crossings. The Project would not include any encroachments in the regulatory floodway, nor would it alter the course of any waterways. The Project would not substantially alter the existing drainage patterns or add substantial impervious surface area such that conditions for flooding would be altered. There would be no impact associated with flooding or the redirection of flood flows. (*No Impact*)

Impact 3.10-3: The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site. (*Less than Significant*)

The Project is a linear electrical transmission line facility that would be constructed, operated, and maintained upon and within roadways and terrain with minimal slope variation (i.e., in a relatively flat location). The Project would consist of construction, operation, and maintenance of: two new HVDC terminals, the proposed Skyline and Grove HVDC Terminals (with a combined total footprint of 12.9 acres); the proposed 13-mile Grove to Skyline 320 kV Transmission Line; the proposed 1.2-mile Metcalf to Grove 500 kV Transmission Line; the proposed 100-foot Skyline to San Jose B 230 kV Transmission Tie Line; modifications to the existing PG&E Metcalf and PG&E San Jose B substations; and ancillary facilities. Temporary and permanent work area disturbance is quantified in Table 2-5, *Summary of Work Area Disturbance,* and discussed below in the context of construction and operational impacts.

Construction

An impact could occur if Project-related alteration of the construction site were to cause changes to drainage patterns or to directly alter streams and drainages enough that such changes would generate substantial erosion or siltation on- or off-site. As proposed, the Project would entail a variety of soil-disturbing construction activities to install the proposed underground AC and DC transmission lines and their interconnections, to develop two new HVDC Terminal sites on undeveloped properties, and to construct ancillary facilities.

Open-cut trenching would be used for installation of most of the underground transmission duct banks. Because this work would occur within roadways and pavement would be cut and repaired at the conclusion of the process, changes to site hydrology and drainage would be minimal.

Various measures would be implemented to manage the construction site in a manner that would minimize erosion and siltation on- and off-site. For example, as described in LSPGC APM GEO-1,

vegetation removal and soil disturbance would be kept to a minimum and limited to the areas needed for construction. Topsoil material would be kept on-site in the immediate vicinity of the temporary disturbance or in an approved nearby work area to be used during restoration of temporarily disturbed areas. Areas of temporary disturbance would be recontoured after construction to match preconstruction grades. Construction in areas with saturated soils would be avoided, whenever practical, to reduce impacts on soil structure. These measures, among others listed in Section 3.10.3, would help to minimize site changes that would otherwise result in conditions of runoff, siltation, and erosion.

As discussed under Impact 3.10-1, a SWPPP would be implemented as a required part of the Construction General Permit. The SWPPP requires management and maintenance of independently enforceable erosion control and stormwater protection measures, which would also reduce the potential for runoff and siltation. Because construction methods, including jack and bore, micro-tunneling, and HDD, would be employed to avoid surface waters, the Project would not alter the course of any waterways. Therefore, as proposed, with site management consistent with LSPGC APMs, PG&E BMPs, and Construction General Permit requirements, the Project's construction-related impacts would be **less than significant**.

Operation and Maintenance

As quantified in Table 2-5, the Project would result in a total permanent disturbance area of approximately 20 acres. As discussed previously, the Project is proposed on predominantly flat terrain. Consequently, the potential for the Project to result in erosion would be minimal. At the conclusion of construction, the Project site would be restored to preconstruction conditions. Such restoration activities would include revegetation and reseeding of disturbed areas and the restoration of pavements and affected stormwater conveyance systems. Disturbed roads would be reconstructed to the relevant transportation authority's specifications and consistent with encroachment permit conditions. Reconstruction would include the restoration of all removed curbs, gutters, and sidewalks and the restoration of all removed or damaged paved surfaces, including the wear surface, striping, and signage. Maintenance of access roads and utility easements would also be consistent with regulatory standards. Because there would be limited permanent site alteration with respect to hydrology across the mostly flat site, the Project would not result in substantial erosion or siltation on- or off-site. Operation and maintenance-related impacts would be **less than significant**.

Mitigation: None required.

Impact 3.10-4: The Project would create or contribute runoff water which could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. (*Less than Significant*)

Construction

For reasons similar to those discussed under Impact 3.10-3, the Project would not provide additional sources of polluted runoff; however, because the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV Transmission Line would cross through known contamination sites, the Project has the potential to mobilize sediment and other pollutants (through runoff) into stormwater. A potentially significant impact would occur if

construction were to cause enough stormwater contamination that the SCVURPPP's municipal regional stormwater (NPDES) permit conditions would be compromised. Given its proposed reconstruction of affected roadways, the Project would be considered a regulated project subject to stormwater treatment design standards (C.3 provisions) outlined in the effective Municipal Regional Permit.

As discussed previously, the Project would disturb more than 1 acre of soil near waters of the United States; therefore, it is anticipated that discharge coverage would be obtained under the Construction General Permit. The Project would be constructed in San José and Santa Clara County and on lands under Valley Water ownership or jurisdiction. These responsible agencies are co-permittees to the Municipal Regional Permit. This means that activities with potential to release sediment and other pollutants into the stormwater system would be subject to the requirements of the Municipal Regional Permit under the SCVURPPP. Member agencies to this pollution prevention program include the city of San José, Santa Clara County, and Valley Water, all of which are Responsible Agencies with jurisdiction over lands crossed by the Project. The encroachment permits would likely include specific conditions (to which the Project would be subject) to ensure that proposed actions during construction would not conflict with the Municipal Regional Permit (described under *Regional and Local* in Section 3.10.2, *Regulatory Setting*).

LSPGC APM WQ-1 requires that the water quality of groundwater to be discharged first be tested. This measure stipulates that discharge to surface waters or storm drains may occur only if permitted by the agency or agencies with jurisdiction over the resource (e.g., USACE, the RWQCB, and/or CDFW, as applicable). LSPGC APM GEO-1 contains provisions to limit soil disturbance, which would indirectly reduce the mobilization of sediment and other pollutants into stormwater. LSPGC APM BIO-4 would also indirectly reduce sedimentation (and associated stormwater pollutants) by establishing aquatic resource avoidance areas.

PG&E would implement similar measures and FPs to limit stormwater pollution in the vicinity of its worksites. Specifically, implementing FP-12 and FP-16 would limit sedimentation by establishing wetland buffer areas and requiring that stockpiled soils be covered. BMP HAZ-10 requires that the Project implement SWPPP stormwater installation measures during construction consistent with agency requirements such as those governed by the Municipal Regional Permit. Where known hazardous materials sites are located, such as near the PG&E San Jose B Substation expansion area and the Skyline HVDC Terminal site's interconnection area, implementation of BMP HAZ-12 would ensure that PG&E complies with the Site Management Plan that was prepared as part of the Covenant for the property at the proposed Skyline HVDC Terminal site. Adherence to the Covenant agreement, including the effective Site Management Plan, would limit the spread of existing contamination.

Adherence to the regulatory requirements and implementation of the LSPGC APMs, PG&E BMPs, and PG&E FPs (described above and listed in Section 3.10.3) would reduce runoff that could otherwise be delivered into the stormwater system. The resulting construction-related impact would be **less than significant**.

Operation and Maintenance

Once constructed, the Project's proposed transmission lines would be operated and maintained with minimal to no changes to the site terrain required. As discussed previously and quantified in Chapter 2, *Project Description*, most of the components would be installed underground in roadways. Access to these underground lines for maintenance or occasional repairs would be provided through the subsurface vaults installed for those purposes. The proposed aboveground facilities, including the new HVDC Terminals and their access roads, would be visually inspected to maintain adequate stormwater conveyance and manage vegetation clearance, consistent with the CPUC's requirements. LSPGC and PG&E facilities would be operated and maintained in a manner consistent with regulatory standards for the use, handling, storage, and transport of hazardous materials. Potential operation and maintenanc-related impacts would be **less than significant**.

Mitigation: None required.

Criterion d) Whether the Project in flood hazard, tsunami, or seiche zones, would risk release of pollutants due to Project inundation.

As noted in Section 3.10.1, *Environmental Setting*, the proposed Grove to Skyline 320 kV Transmission Line, proposed Metcalf to Grove 500 kV Transmission Line, and proposed HVDC Terminal sites would not be in an area subject to tsunami or seiche inundation risk. Therefore, no impact related to tsunamis and seiches would occur, and these topics are not discussed further in this section. (*No Impact*)

Impact 3.10-5: The Project would be partially located in a flood hazard zone and risk the release of pollutants due to Project inundation. (*Less than Significant*)

As depicted in Figures 3.10-1a through 3.10-1c, the proposed Grove to Skyline 320 kV Transmission Line and the proposed Metcalf to Grove 500 kV Transmission Line would cross through both the 100-year and 500-year flood zones. Portions of both proposed underground transmission lines would also cross through known hazards sites, as described in additional detail in Section 3.9, *Hazards and Hazardous Materials*.

Construction

Project construction would involve the handling, use, storage, and transport of hazardous substances required for construction activities, vehicles, and equipment. Fuels, oil and lubricants, solvents, cleaning solutions, cement, adhesives, paints, paint thinners, degreasers, concrete, and asphalt are commonly used during construction. If not managed appropriately, these substances could spill and contaminate surface waters or otherwise be released if a flood were to occur during construction.

As discussed in Section 3.9, hazardous substances would be stored, handled, used, and transported in accordance with applicable regulatory standards. Construction contractors would prepare and implement a site-specific spill prevention, control, and countermeasures plan and implement the plan to prevent or appropriately address inadvertent releases of toxic substances during construction, consistent with LSPGC APM HAZ-1. Similarly, Project contractors would prepare and implement a hazardous materials management plan, consistent with LSPGC APM HAZ-2 and Cal/OSHA

requirements. PG&E would also prepare a similar plan (for the same reasons) as described in PG&E BMP HAZ-2, which would be used to safely manage materials during construction of the PG&E portions of the Project. Adherence to the specific procedures in these plans would limit the release of pollutants in the event that construction sites were to become inundated.

Additionally, as described in additional detail in Section 3.9 (and listed in Table 3.9-1), nine existing open hazardous materials cleanup sites are located within one-eighth mile of proposed Project components. To limit disturbance and the potential release of existing contaminants that may be present on or near the Project sites, APM HAZ-4 would be implemented by LSPGC. This measure identifies steps necessary to properly identify, handle, treat, and dispose of potentially contaminated soils throughout the Project area where known contamination exists near Project-related ground disturbance. PG&E would also implement PG&E BMP HAZ-12, which ensures compliance of construction activities within the proposed Skyline HVDC Terminal site with the Site Management Plan that was prepared as part of the Covenant for the property. LSPGC's and PG&E's commitment to implementing a soil and site management plans would minimize the potential for a release of hazardous materials during construction. As proposed and implemented, the net effect would be a **less-than-significant** impact during Project construction.

Operation and Maintenance

As an electrical utility–type project, the Project would not include the placement of habitable structures (such as residences), nor is it anticipated to require more than one additional staff member for its maintenance. As discussed previously, portions of the proposed transmission lines would be within identified flood hazard zones. However, operation and maintenance activities would be conducted in accordance with all regulatory requirements governing hazardous materials. PG&E would implement FPs such as FP-15 and FP-16, which contain specific stream and water resource buffer requirements for vehicle refueling and require secondary spill containment protocols.

As public utilities, LSPGC and PG&E would adhere to internal operational standards and those required by the CPUC. With adherence to the utility operational standards and regulatory requirements, along with implementation of the PG&E FPs, Project operation and maintenance of the Project would not result in substantial releases of pollutants in the event of inundation. Impacts would be **less than significant**.

Mitigation: None required.

Criterion e) Whether the Project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Impact 3.10-6: The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (*Less than Significant*)

Construction

As discussed in Section 3.10.1, the waterways crossed by the Project's proposed transmission lines have numerous identified beneficial uses, as identified in the Basin Plan. Table 3.10-1,

shows that many of the surface waters are listed on the CWA 303(d) list, with TMDLs (or other actions) in effect to maintain or prevent any further water quality degradation for these waters.

As designed, Project construction would avoid direct impacts on Coyote Creek, Fisher Creek, the Coyote Alamitos Canal, and the other waterways in the Project vicinity. Avoidance methods would include the use of HDD, jack and bore, and micro-tunneling to install the Project components without interfering with these waterways or their quality. As described in Impact 3.10-1, a SWPPP would be implemented along with various LSPGC APMs, PG&E BMPs, and FPs (listed in Section 3.10.3), which would limit the mobilization of sediment, silt, trash, and other pollutants during construction. With appropriate construction site management and implementation of the BMPs as part of the SWPPP, construction activities would not compromise beneficial uses or interfere with water quality objectives for the listed waterways. Therefore, Project construction would not conflict with or obstruct the Basin Plan or any of the TMDLs in effect or under development in the Project vicinity.

As discussed under Impact 3.10-3, the Project would place demands on groundwater during construction. However, given the variety of source options available to meet the Project's construction water requirements, the Project's temporary water demand would not impede sustainable management of the Santa Clara subbasin. Among the directives in LSPGC APM WQ-1 is the requirement that during dewatering activities, the Project shall contain the recovered groundwater on-site and test it before discharge. Because the Project would protect surface water and groundwater quality, there would be no conflicts with the Basin Plan or the *Groundwater Management Plan for the Santa Clara and Llagas Subbasins*, or GWMP. This construction impact would be **less than significant**.

Operation and Maintenance

The Project would restore all disturbed surfaces to preconstruction conditions and would be maintained in a manner consistent with all regulatory requirements governing surface water and groundwater quality. The Project would not conduct any activities that could degrade groundwater quality during operation. For the reasons discussed under Impact 3.10-1, no violations of water quality would occur during Project operation. Therefore, the Project would not conflict with the Basin Plan, the sustainability goals of the GWMP, or Valley Water's Water Resources Protection Ordinance.

During Project operation, the Project's limited water demand (including that generated by PG&E facilities) could be met through available supplies, which come from a variety of sources including surface water and groundwater. Therefore, the Project would not conflict with the GWMP. Impacts associated with operation and maintenance of the Project would be **less than significant**.

Mitigation: None required.

3.10.6 Cumulative Effects Analysis

This section presents an analysis of the cumulative effects of the Project when considered in combination with other past, present, and reasonably foreseeable future projects that could result in cumulatively considerable impacts. Significant cumulative impacts related to hydrology and water quality could occur if the incremental impacts of the Project combine with the incremental impacts of one or more cumulative projects. Section 3.0.3, *Approach to Cumulative Impacts Analysis,* includes Table 3.0-1, *Cumulative Projects List*, which lists past, present, and reasonably foreseeable future projects within a 2-mile radius of the Project site.

The geographic area affected by the Project and its potential to contribute to cumulative impacts varies based on the environmental resource under consideration. The geographic scope of analysis for cumulative hydrological and water quality impacts includes a 2-mile radius buffer area surrounding the Project site.

The timeframe during which construction of the Project could contribute to cumulative effects includes the approximate 24-month duration for construction. Because decommissioning is not planned, the operation and maintenance phase is considered permanent or extending in perpetuity.

3.10.6.1 Criterion a)

Impact C.3.10-1: The Project's impacts associated with violation of water quality standards, waste discharge requirements, or other Project degradation of surface or ground water quality would not be cumulatively considerable. (*Less than Significant)*

As noted under Impact 3.10-1, the Project's construction ground-disturbing activities have the potential to release sediment and other pollutants, which could degrade surface waters or groundwater. The potential for encountering groundwater during construction is high given the shallow depth of regional groundwater supplies combined with the Project's proposed depth of excavation reaching a maximum of 60 feet below ground surface. As discussed above, LSPGC APM WQ-1 would be implemented to help ensure that groundwater would be handled and discharged in accordance with state and federal regulations. Groundwater would be tested before any discharge and provisions would be made to limit water quality degradation.

Other projects in the vicinity of the Project may also have incremental or significant impacts on surface and groundwater quality and waste discharge. Some projects may, like the proposed Project, involve excavation activities that will reach depths below the groundwater level and may contribute to degradation of groundwater quality. However, just as LSPGC APM WQ-1 will be implemented to ensure any water quality degradation is limited or avoided altogether, it is assumed that the cumulative projects will likewise handle or discharge any groundwater in accordance with state and federal regulations, including procurement of a Construction General Permit as applicable, and that these impacts will be minimized to the greatest extent feasible.

The Project's compliance with applicable local, state, and federal laws and regulations is assumed in this analysis, and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. The analysis also assumes that all other projects considered in the cumulative impacts analysis would likewise be subject to and in compliance with

all applicable laws and regulations. With the implementation of the LSPGC APMs and PG&E BMPs, as well as compliance with all laws and regulations related to water quality, it can reasonably be expected that the Project's contribution to the violation of water quality standards, waste discharge requirements, or degradation of surface or groundwater quality would not be cumulative considerable, and this cumulative impact would be **less than significant**.

Mitigation: None required.

3.10.6.2 Criterion b)

Impact C.3.10-2: The Project's impact associated with decreased groundwater supplies or interference with groundwater recharge would not be cumulatively considerable. (*Less than Significant*)

As discussed above in Impact C.3.10-2, water would be used during construction for dust suppression, compaction, and site development. Up to 16 million gallons of water would be used for such purposes during the estimated 24-month period when these construction phases would occur. Multiple water sources are available for Project construction use, including reclaimed tertiary treated water, surface water, and groundwater supplies. Due to the variety of source options available to meet the Project's construction water requirements, the Project would not place water demands on the groundwater resources that would impede sustainable groundwater management of the Santa Clara Subbasin.

Additionally, installation of the Project components would not add substantial impervious surfaces to the ground, nor would it impede sustainable recharge of the groundwater basins, and operation of the Project would not require water sources and would have no direct or indirect impacts related to a decrease in groundwater supplies, interference with groundwater recharge, or impedance of sustainable groundwater management.

Though other projects in the vicinity may contribute to impacts that would decrease groundwater supplies or interfere with groundwater recharge, the Project's incremental contribution to these impacts would not cumulatively considerable, therefore, this cumulative impact would be **less than significant**.

Mitigation: None required.

3.10.6.3 Criterion c)

As discussed in Impact 3.10-3, the Project would not alter the course of any of the surface waters crossed and would not substantially alter the existing drainage patterns or add substantial impervious surface area that could alter flooding conditions. Therefore, the Project would not cumulatively contribute to this criterion, and there would be no impact. (*No Impact*)

Impact C.3.10-3: The Project, in combination with the cumulative projects, would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river nor through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site. **(Less than Significant)**

Construction

As discussed above, the Project would be subject to the requirements of the Construction General Permit, including site management, stormwater and non-stormwater management, and erosion control and sediment controls. Depending on the water quality risk level the Project poses, monitoring requirements may also be in effect. As discussed, a SWPPP would be implemented in accordance with the Construction General Permit, which would include specific BMPs to contain run-on and run-off and control erosion during construction. As identified in Section 3.10.3, LSPGC would also implement LSPGC APM WQ-1 and PG&E would implement PG&E BMP HAZ-10 to limit potential impacts on water quality, including erosion controls. Any impacts associated with temporary soil disturbance would be reduced by the site-specific measures developed and implemented as part of the SWPPP requirements of the Construction General Permit. In locations where the proposed transmission lines are proposed to cross waterways, methods such as horizontal directional drill or jack and bore crossings would be used to minimize runoff impacts. With implementation of these regulatory control measures, the Project, in combination with the cumulative projects, would have a **less-than-significant** cumulative impact for this criterion.

Operation and Maintenance

Operation of the Project would add limited impervious surfaces, such as concrete structure foundations and splice vaults, on terrain with minimal slope variation. Because there would be limited permanent site alteration with respect to hydrology across the mostly flat Project area, the Project would not result in substantial erosion or siltation on- or off-site. The Project temporary work areas would be restored to pre-construction conditions at the conclusion of construction.

The Project's incremental contribution to alteration of existing drainage patterns in the region would not, when combined with other foreseeable past, present, and future projects, result in cumulatively considerable impacts. The Project's incremental contribution would not be cumulatively considerable. Therefore, this cumulative impact would be **less than significant**.

Mitigation: None required.

Impact C.3.10-4: The Project, in combination with the cumulative projects, would create or contribute runoff water which could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. (*Less than Significant*)

Construction

Construction activities have the potential to mobilize sediment and other pollutants into stormwater through runoff. Adherence to the SWPPP, which would be implemented as part of the Construction General Permit and would include BMPs and other control measures to limit such sediment mobilization; however, would limit potential impacts associated with construction runoff. Though the Project could contribute additional sources of polluted runoff directly (e.g., through spills or inadvertent releases hazardous substances oils or chemicals) or indirectly through the mobilization of sediment and other pollutants that may already be present along the Project alignment, pre-construction preparation and implementation of a spill prevention countermeasure control plan and a hazardous materials management plan, which would outline hazardous materials use, transport, storage, handling, and disposal protocols and would comply

with all relevant state and federal regulations governing hazardous materials, would prevent the Project from contributing additional sources of polluted runoff.

A potentially significant impact would occur if construction were to cause enough stormwater contamination that the SCVURPPP's municipal regional stormwater (NPDES) permit conditions would be compromised. Given its proposed reconstruction of affected roadways, the Project would be considered a regulated project subject to stormwater treatment design standards (C.3 provisions) outlined in the effective Municipal Regional Permit. Activities with potential to release sediment and other pollutants into the stormwater system would be subject to the requirements of the Municipal Regional Permit under the SCVURPPP.

As discussed above, Project implementation of and adherence to the regulatory requirements and LSPGC's APMs, including APM WQ-1, APM GEO-1, and APM BIO-4, as well as relevant PG&E BMPs and FPs, would reduce Project runoff that could otherwise be delivered into the stormwater system. Compliance with all regulatory requirements would limit the potential for asbestos releases (refer to Section 3.3, *Air Quality*, and Section 3.7, *Geology and Soils*, for additional discussion related to asbestos). All other foreseeable projects within the area would also be in compliance with all applicable laws and regulations. With implementation of the aforementioned LSPGC APMs, and adherence to regulatory requirements, the resulting impact associated with construction activities would not be, in combination with other projects, cumulatively considerable and would be **less than significant**.

Operation and Maintenance

Once constructed, the proposed Metcalf to Grove 500 kV Transmission Line would be operated and maintained with minimal to no changes to the site terrain required. The proposed aboveground facilities and access roads would be visually inspected to maintain adequate stormwater conveyance and manage vegetation clearance, in accordance with regulatory rules and requirements (e.g., CPUC General Order 95, Public Resources Code 4292, California Code of Regulations Title 14, Section 1254). The facilities would be operated and maintained in compliance with regulatory standards with respect to use, handling, storage, and transport of hazardous materials. While the Project may incrementally contribute to these impacts in combination with other foreseeable projects, the adherence of all projects to these requirements and regulations would result in cumulative impacts that are **less than significant.**

Mitigation: None required.

3.10.6.4 Criterion d)

As noted in Section 3.10.1, *Environmental Setting*, the Project's proposed transmission lines and proposed HVDC terminal sites would not be in an area subject to tsunami or seiche inundation risk. Therefore, no impact related to tsunamis and seiches would occur, and these topics are not discussed further in this section.

Impact C.3.10-5: The Project, in combination with the cumulative projects, would partially be located in flood hazard zone, and could risk release of pollutants due to inundation. (*Less than Significant*)

As discussed above, the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV Transmission Line would cross through both the 100-year and 500-year flood zones. Portions of the alignment would also cross through known hazards sites, as described in additional detail in Section 3.9, *Hazards and Hazardous Materials*.

Construction

As discussed above, components of the Project would cross through both the 100-year and 500-year flood zones. Additionally, portions of the alignment also cross through known hazards sites. However, with adherence to regulatory requirements governing hazardous materials and implementation of LSPGC's APMs and PG&E FPs and BMPs, the Project's incremental contribution to the risk of release of pollutants due to inundation would not be cumulatively considerable and, therefore, this cumulative impact would be **less than significant**.

Operation and Maintenance

As discussed above, portions of the proposed transmission lines would be within identified flood hazard zones. However, operation and maintenance activities would be conducted in accordance with all regulatory requirements governing hazardous materials. PG&E would implement FPs, which contain specific stream and water resource buffer requirements for vehicle refueling and require secondary spill containment protocols. Operation and maintenance activities would be conducted in accordance with all regulatory requirements governing hazardous materials and, along with the implementation of APMs, would reduce potential release of pollutants during the Project's operation and maintenance phase. Adherence to these requirements and measures would ensure the Project's impacts would not be cumulatively considerable and, therefore, this cumulative impact would be **less than significant**.

Mitigation: None required.

3.10.6.5 Criterion e)

Impact C.3.10-6: The Project, in combination with the cumulative projects, would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. (*Less than Significant*)

As discussed above, Project construction would avoid direct impacts on Coyote Creek, Fisher Creek, the Coyote Alamitos Canal, and the other waterways in the Project vicinity. Avoidance methods would include the use of HDD, jack and bore, and micro-tunneling to install the Project components without interfering with these waterways or their quality. As described in Impact 3.10-1, a SWPPP would be implemented along with various LSPGC APMs, PG&E BMPs, and FPs (listed in Section 3.10.3), which would limit the mobilization of sediment, silt, trash, and other pollutants during construction. With appropriate construction site management and implementation of the BMPs as part of the SWPPP, construction activities would not compromise beneficial uses or interfere with water quality objectives for the listed waterways.

Therefore, Project construction would not conflict with or obstruct the Basin Plan or any of the TMDLs in effect or under development in the Project vicinity.

Though temporary soil disturbances would occur with construction activities, with the implementation of a site-specific SWPPP and LSPGC APMs and PG&E BMPs, construction would protect groundwater from contamination. Therefore, the Project would not conflict with applicable plan(s) or with SGMA.

Once operational, limited soil disturbance would occur and the Project sites would be managed and maintained in accordance with regulatory requirements, such as those governing discharge into municipal separate storm sewer systems. Therefore, ongoing impacts on water quality would not occur.

No impacts would significantly obstruct the implementation of a water quality control plan or sustainable groundwater management plan, either due to the Project individually or in combination with other projects in the area. These impacts would not be cumulatively considerable, and this cumulative impact would be **less than significant**.

Mitigation: None required.

3.10.7 References

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3.11 Land Use and Planning

This section evaluates the Project's potential impacts on land use and planning. It includes information about the physical and regulatory setting and identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to land use and planning.

The study area for the analysis of potential impacts associated with land use and planning is defined as the Project alignment, including all areas of temporary or permanent ground disturbance and the surrounding land uses where the Project would be constructed and operated.

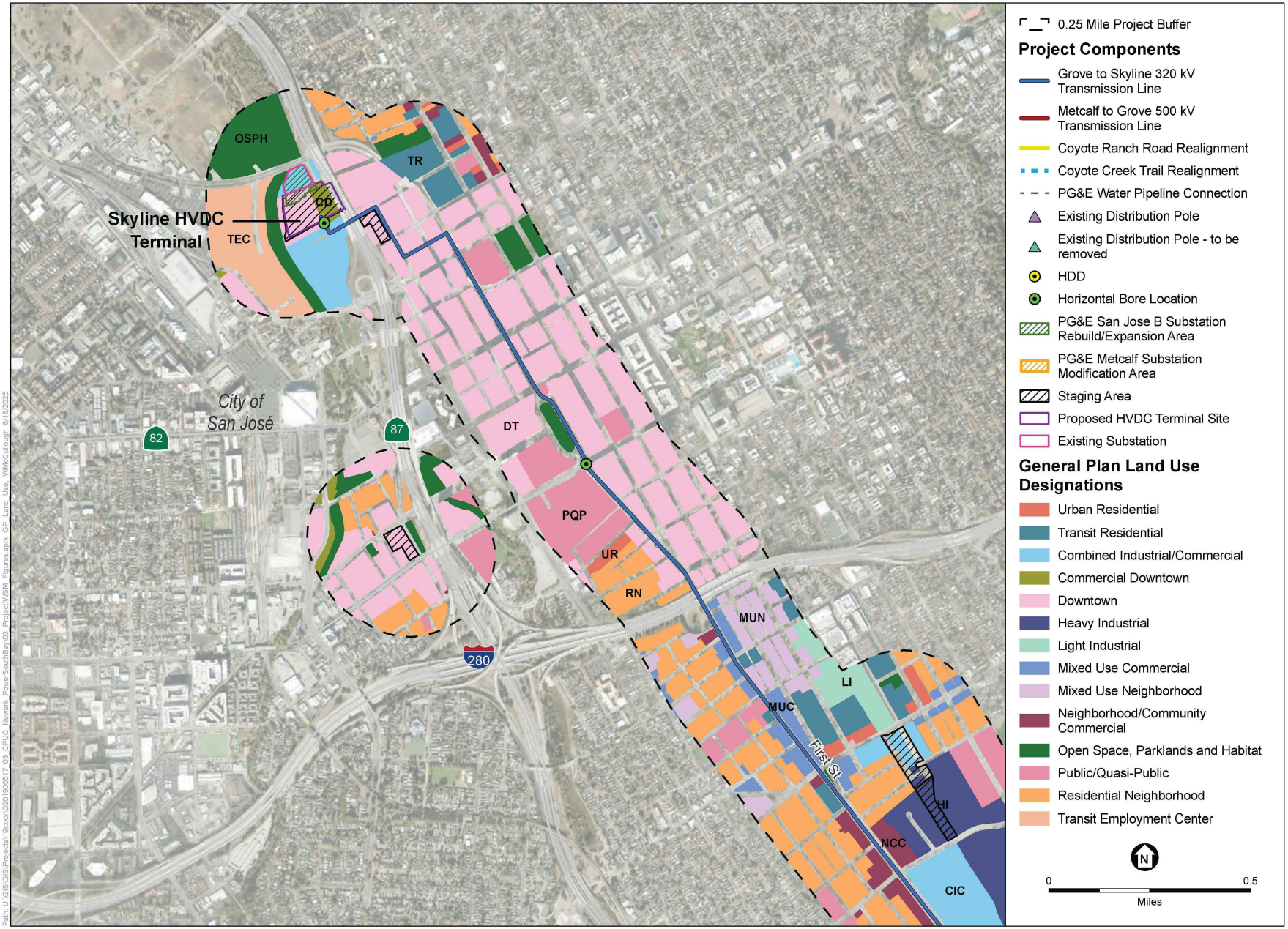
3.11.1 Environmental Setting

3.11.1.1 Project Location Overview

The Project is located within the South Bay area in the city of San José and in unincorporated Santa Clara County. A majority of Project alignment lies within the city of San José, primarily on developed land. The components of the alignment and the land uses can be found in **Table 3.11-1**, *Jurisdictions of the Project Sites and Alignments*.

Existing land uses, general plan land use designations, and zoning designations that would occur within the study area are described below for each Project component (see Section 2.5, *Project Overview*, for further information on each Project component). **Figures 3.11-1a** through **3.11-1e**, *General Plan Land Use Designations*, **Figures 3.11-2a** through **3.11-2e**, *Zoning Designations*, and **Figure 3.11-3**, *Land Management*, depict the general land use designations, zoning designations, and land management for the parcels where the Project components are located and the parcels that coincide with the transmission alignment.

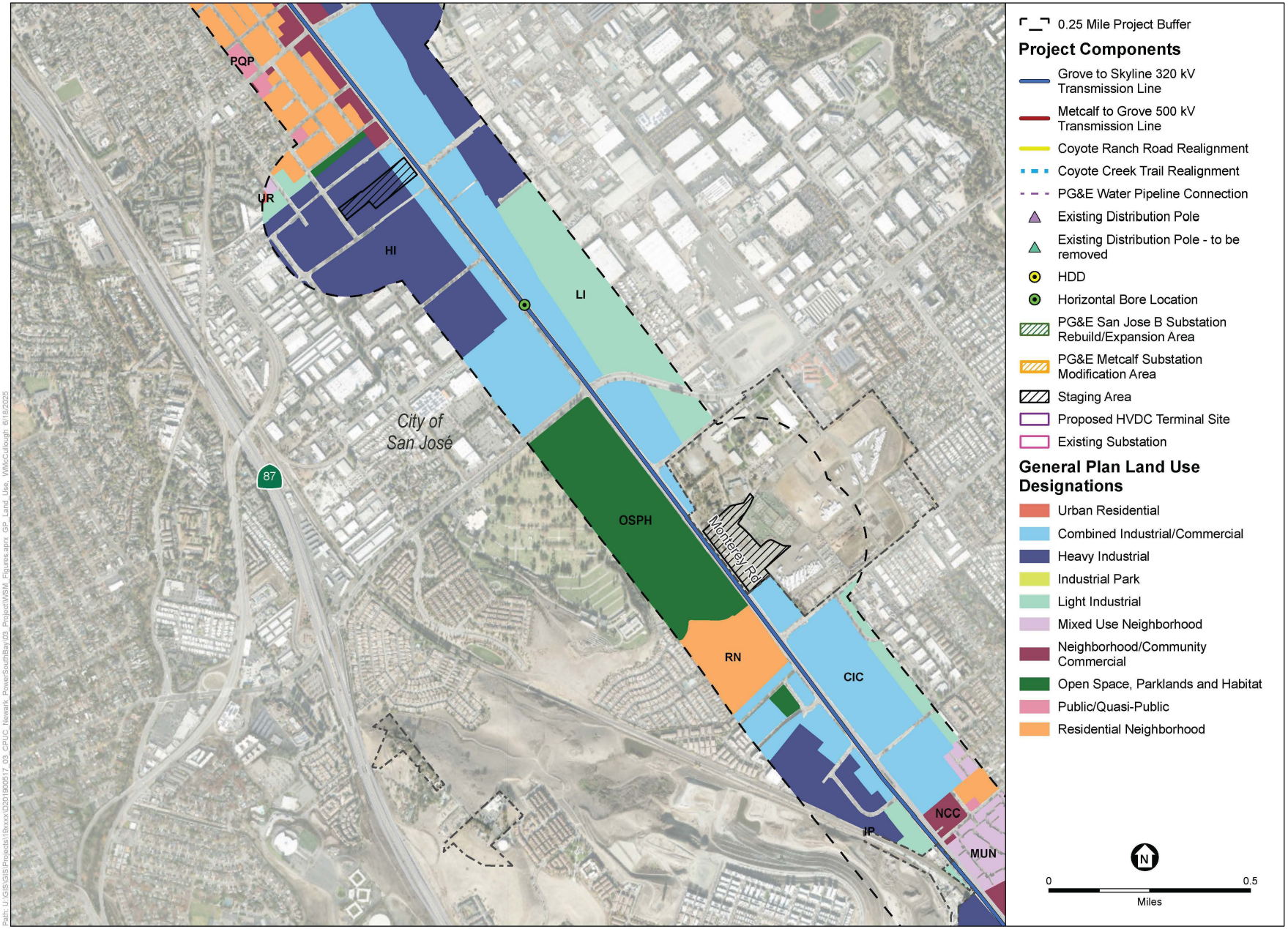
The Project is not located within a community plan area or specific plan area. However, the portion of the Project that is located in unincorporated Santa Clara County lies within the city of San José's sphere of influence (SOI). As such, the entirety of the project falls within the city's designated long-term planning boundary, where the city of San José anticipates future development and may eventually extend municipal services. Inclusion in the SOI indicates that the area is a candidate for future annexation (Santa Clara County 2024b).



SOURCE: ESA, 2024; City of San José, 2024; Santa Clara County, 2024

Power Santa Clara Valley Project

Figure 3.11-1a
General Plan
Land Use Designations



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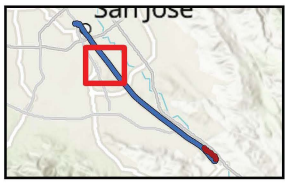

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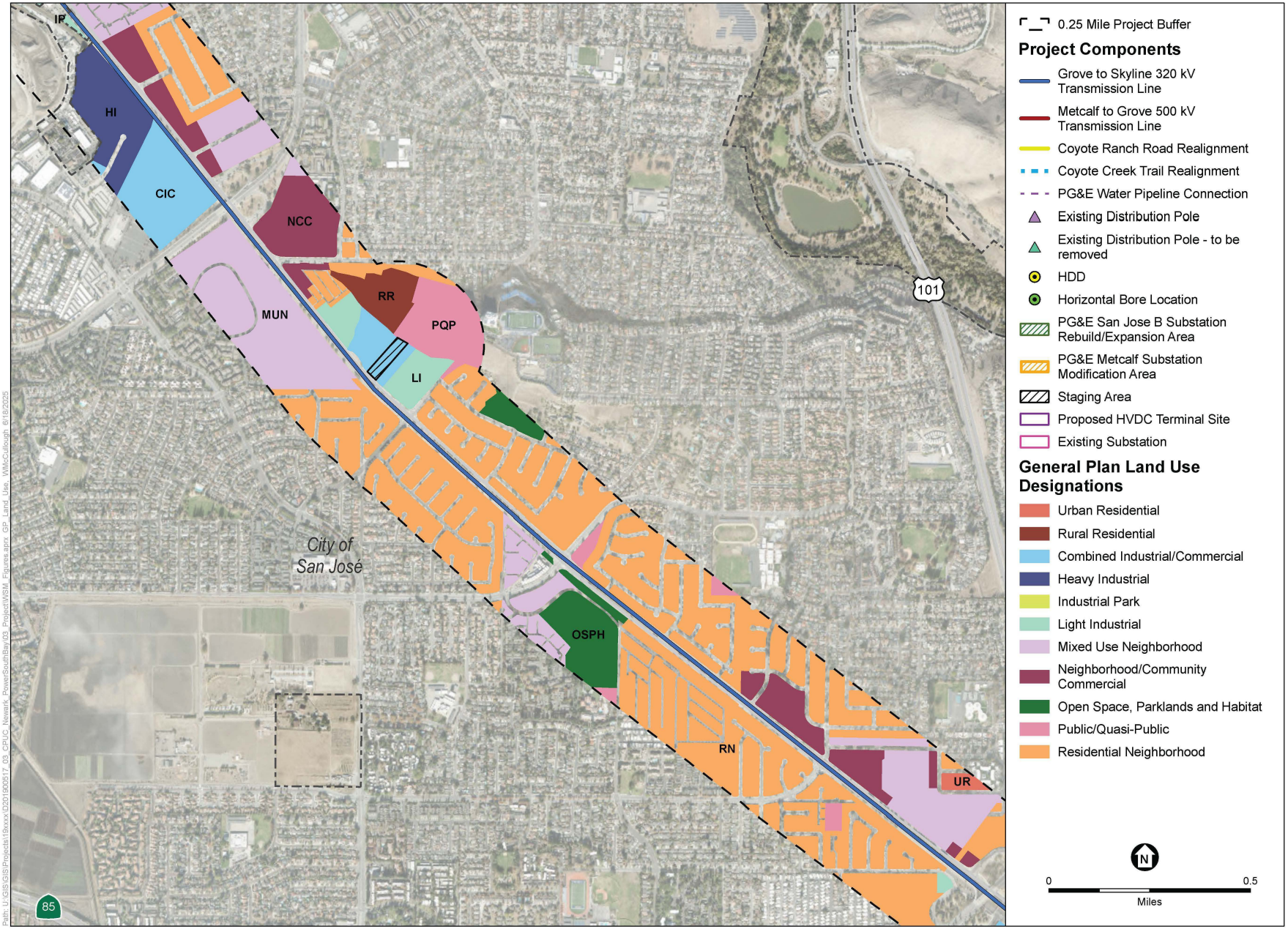
Figure 3.11-1b
General Plan
Land Use Designations

ESA



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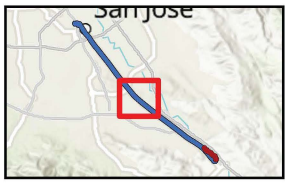
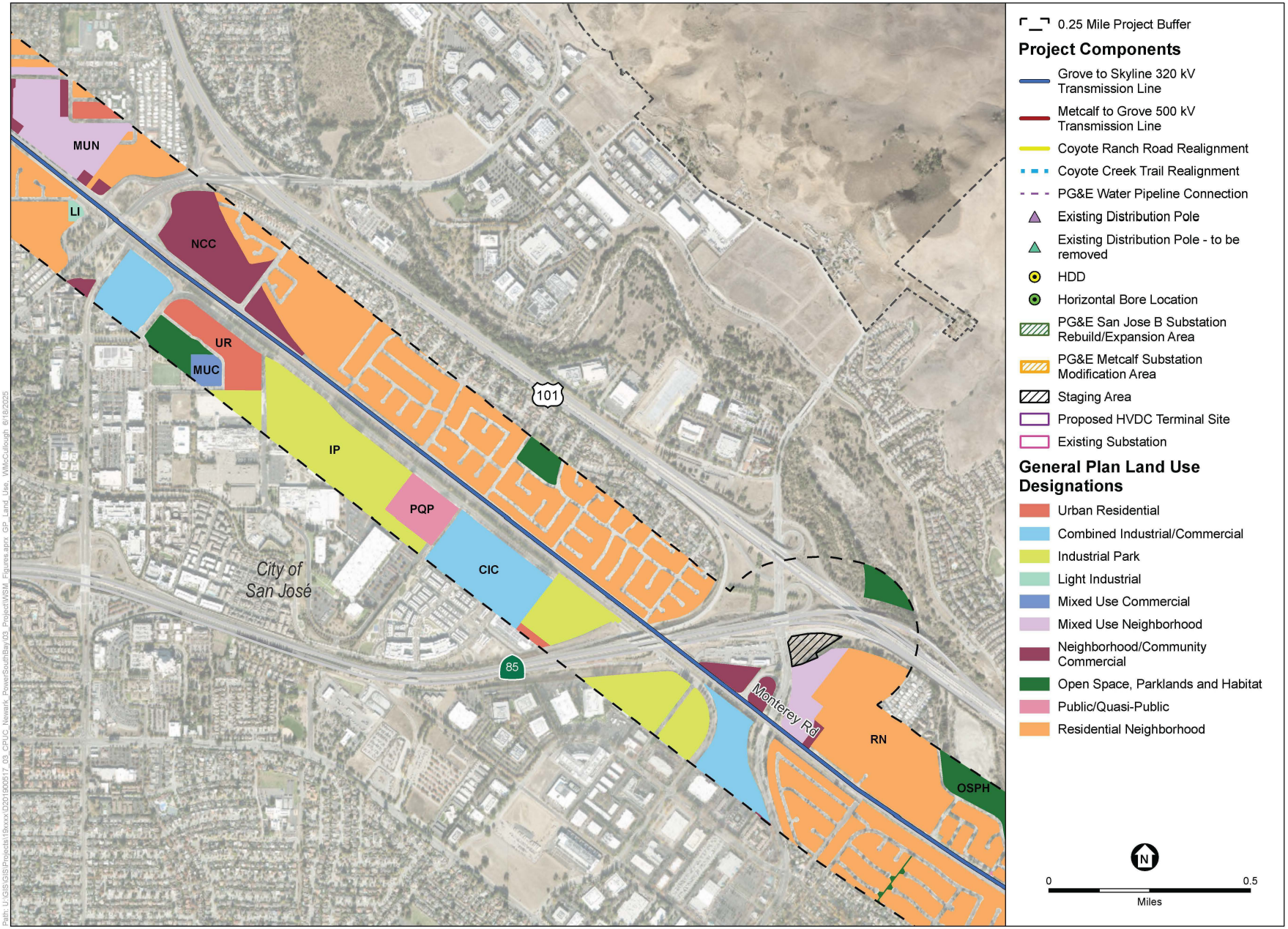


Power Santa Clara Valley Project

Figure 3.11-1c
General Plan
Land Use Designations

ESA



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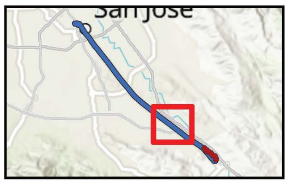

Power Santa Clara Valley Project

Figure 3.11-1d
General Plan
Land Use Designations

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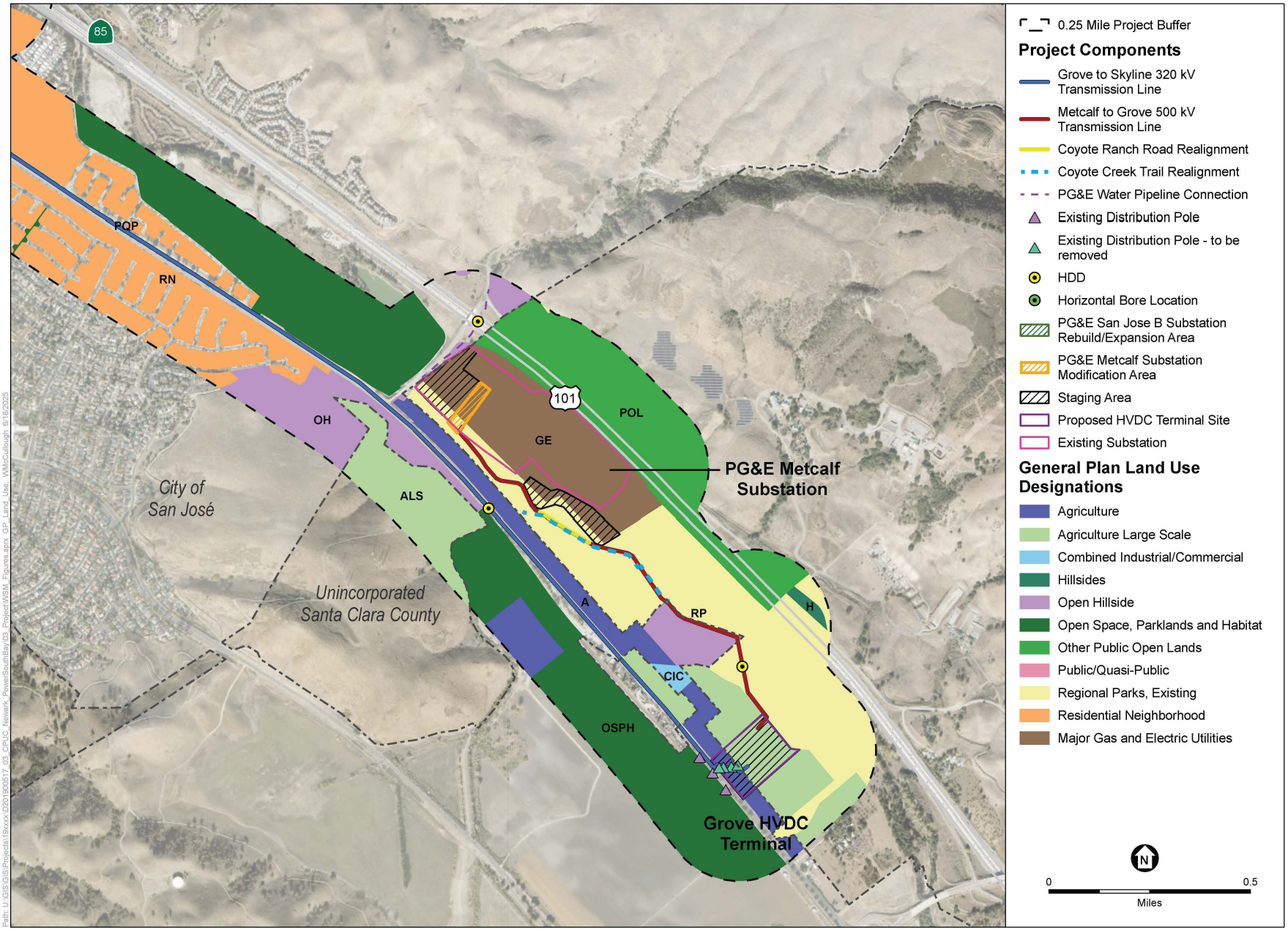

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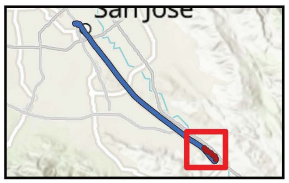
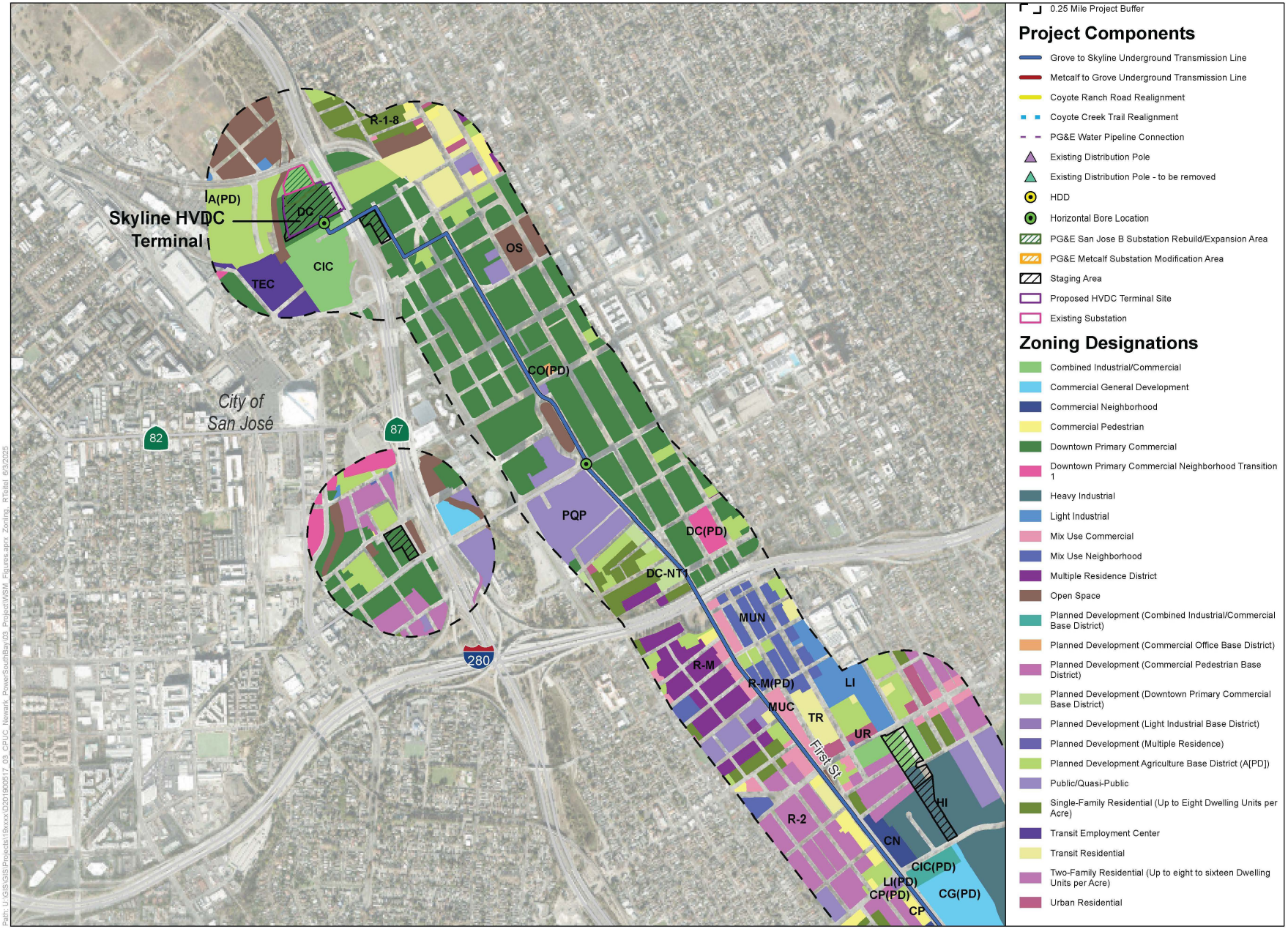


Power Santa Clara Valley Project

Figure 3.11-1e
General Plan
Land Use Designations

ESA



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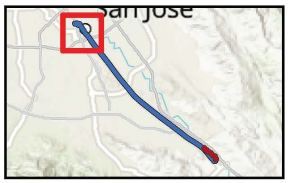

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Figure 3.11-2a
Zoning Designations

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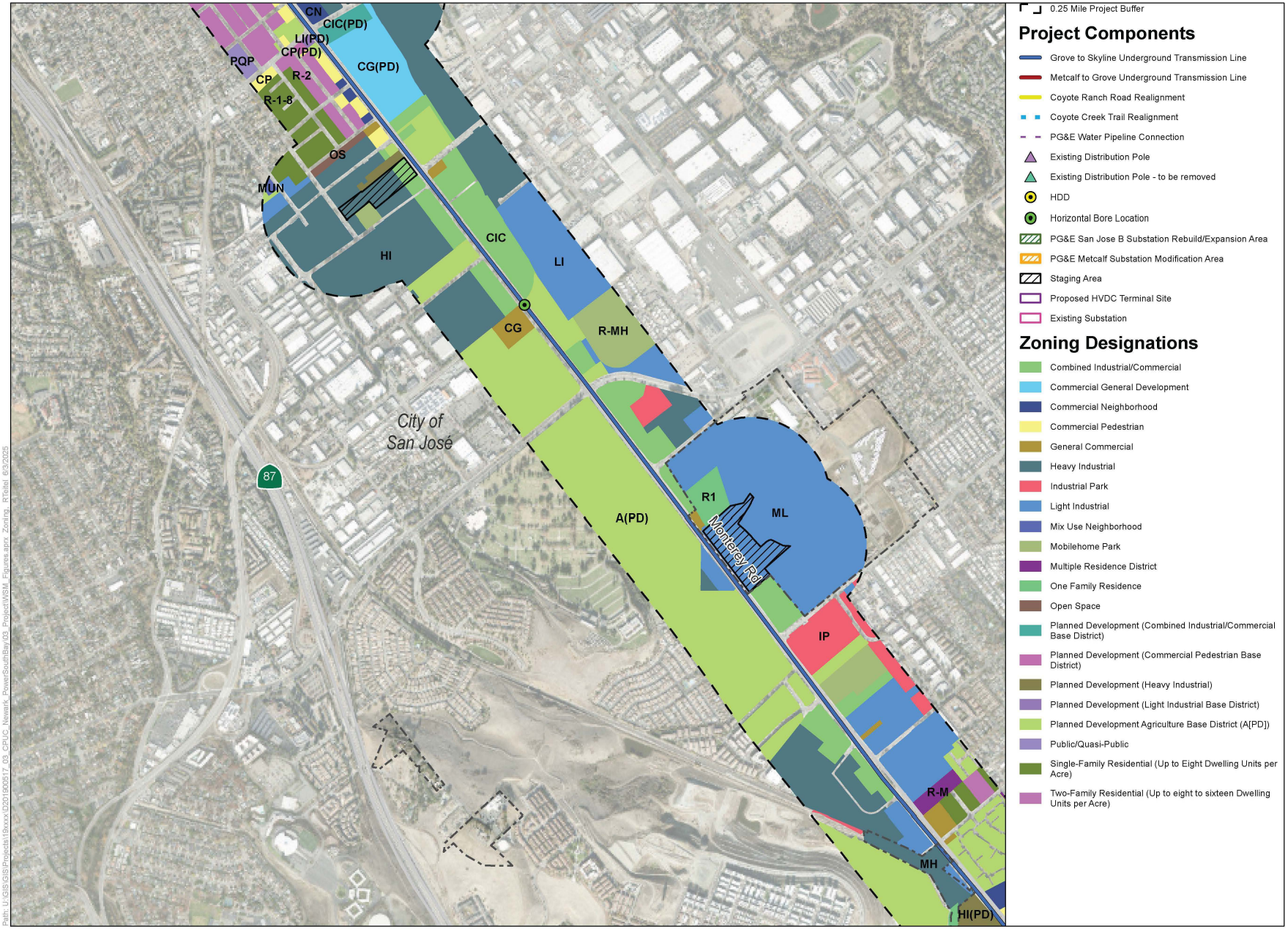

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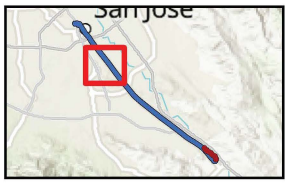
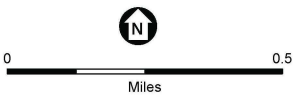
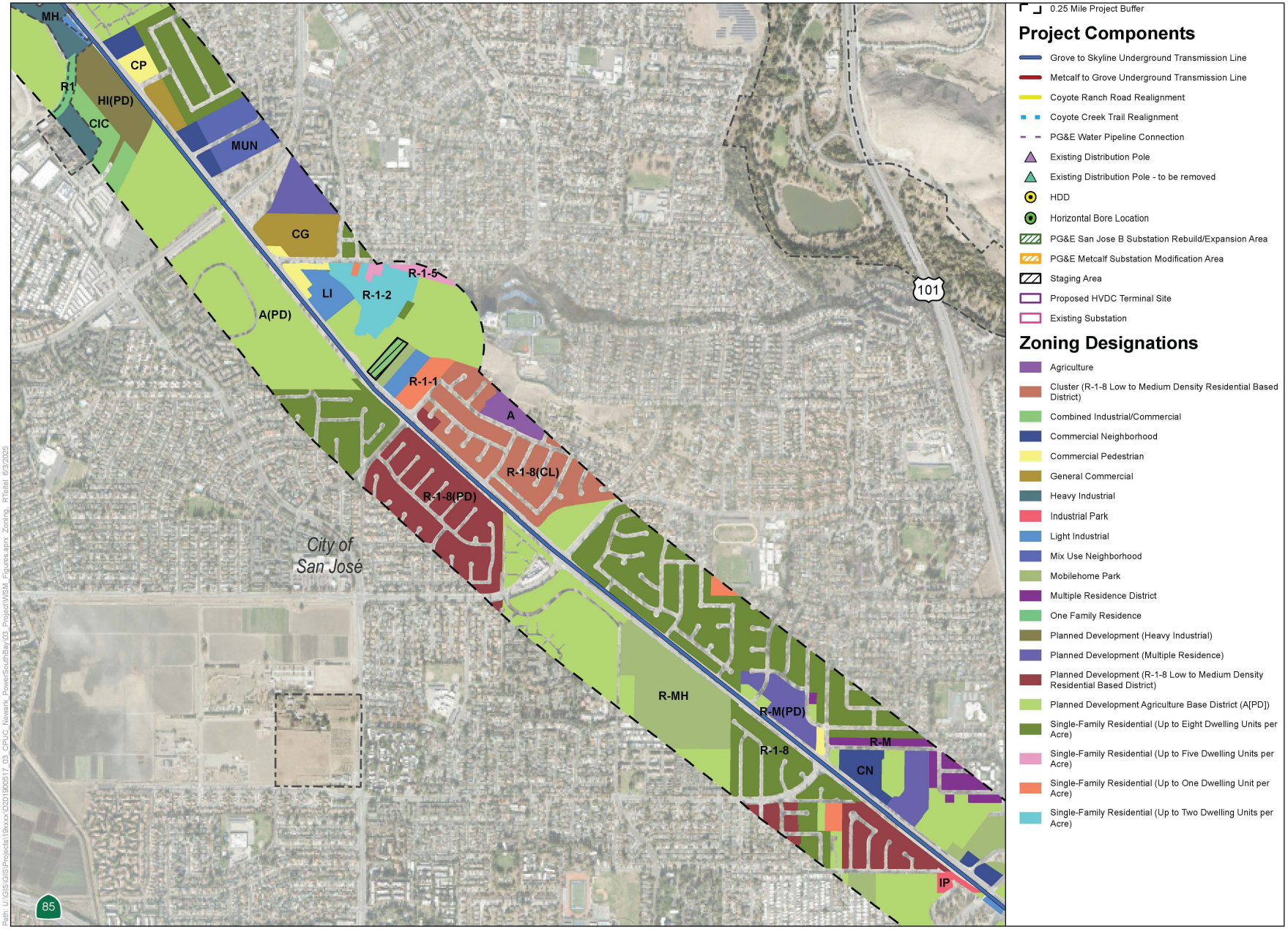




Power Santa Clara Valley Project

Figure 3.11-2b
Zoning Designations

ESA



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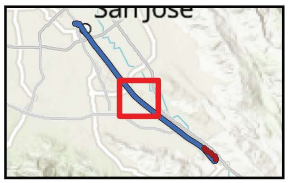

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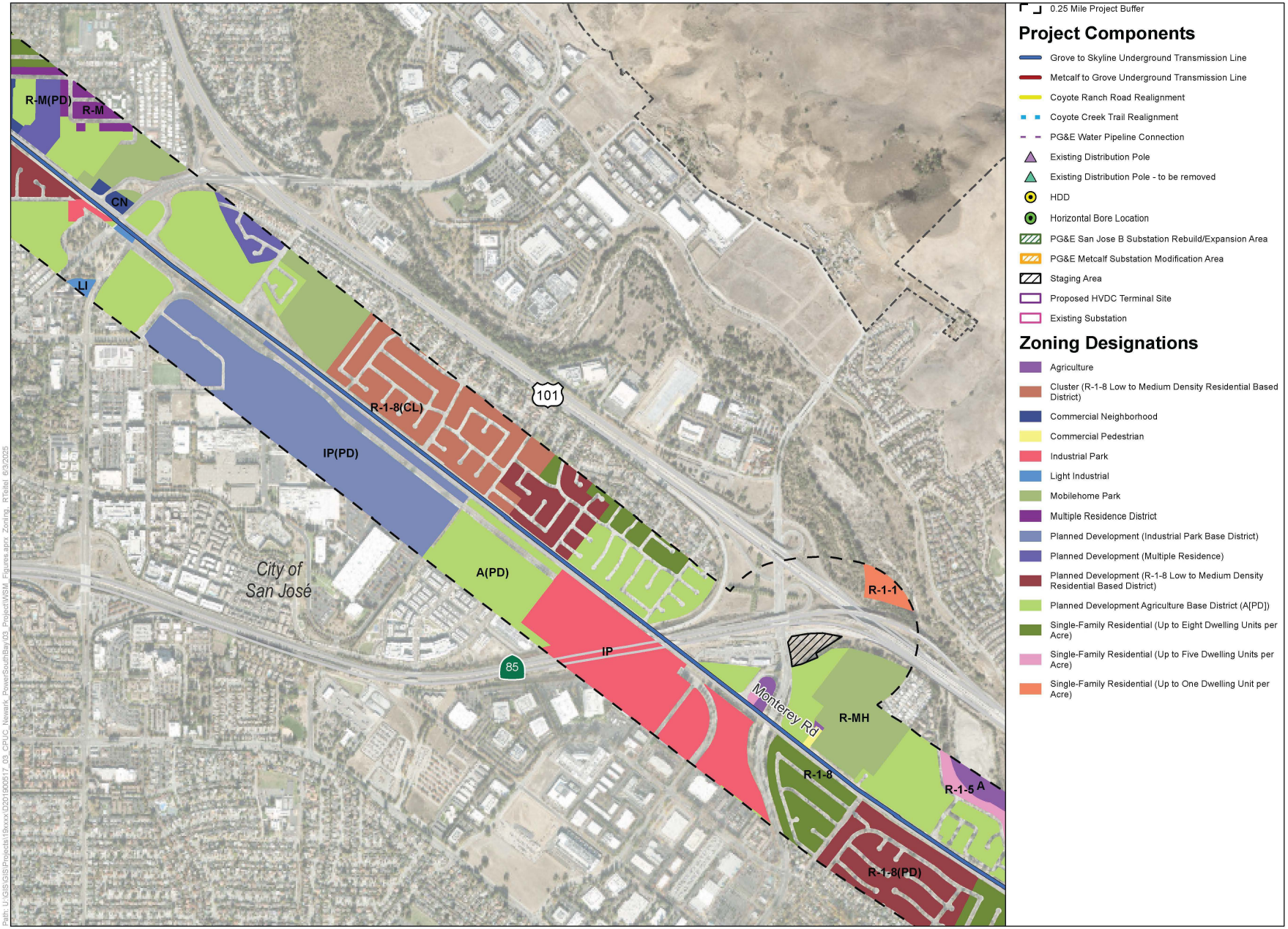
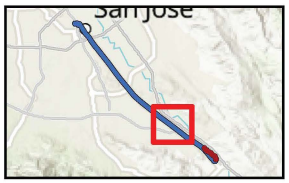
Power Santa Clara Valley Project

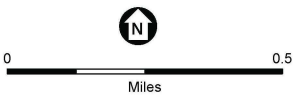
Figure 3.11-2c
Zoning Designations

ESA



SOURCE: ESA, 2024; City of San José, 2024; Santa Clara County, 2024

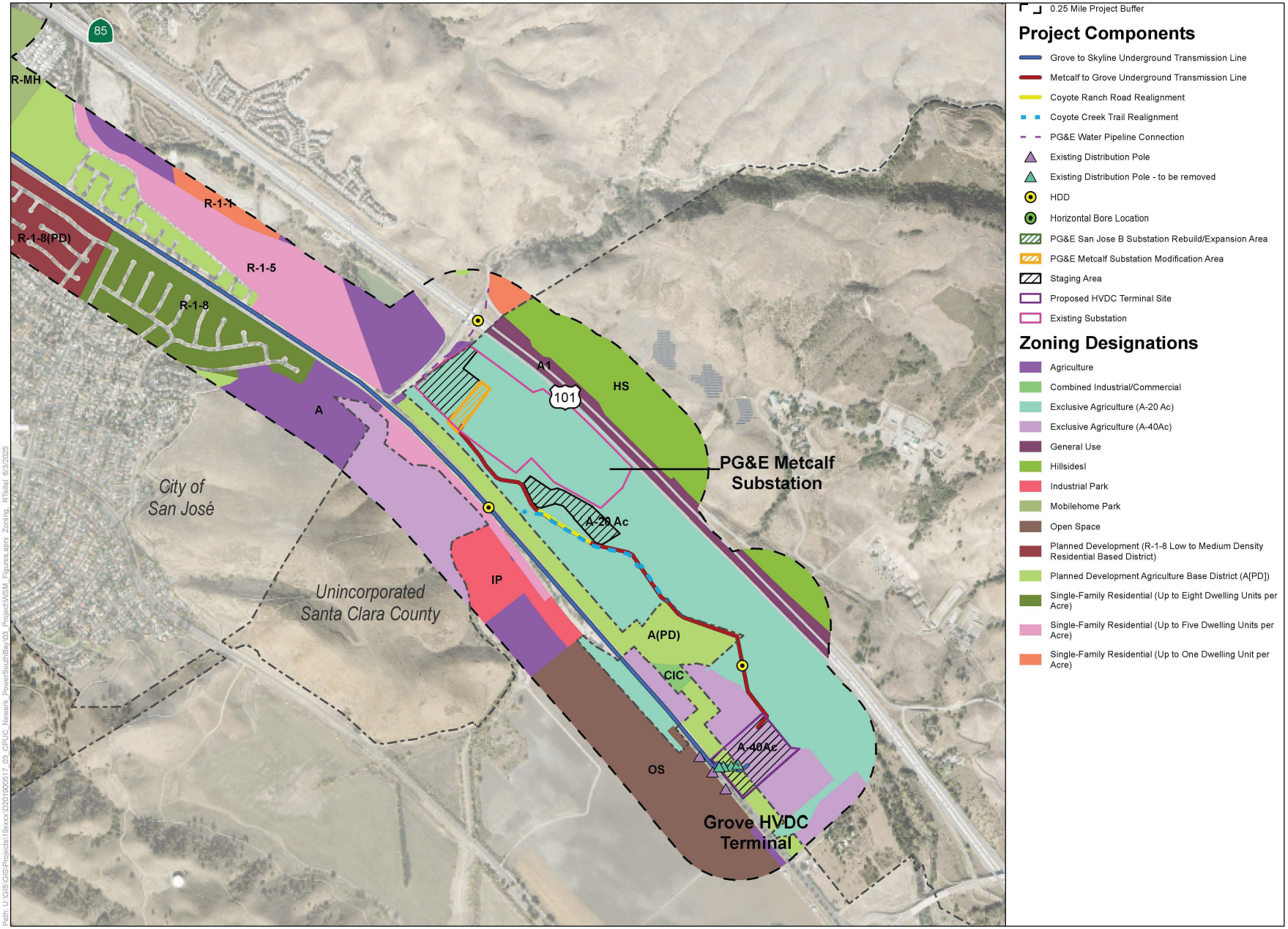




Power Santa Clara Valley Project

Figure 3.11-2d
Zoning Designations

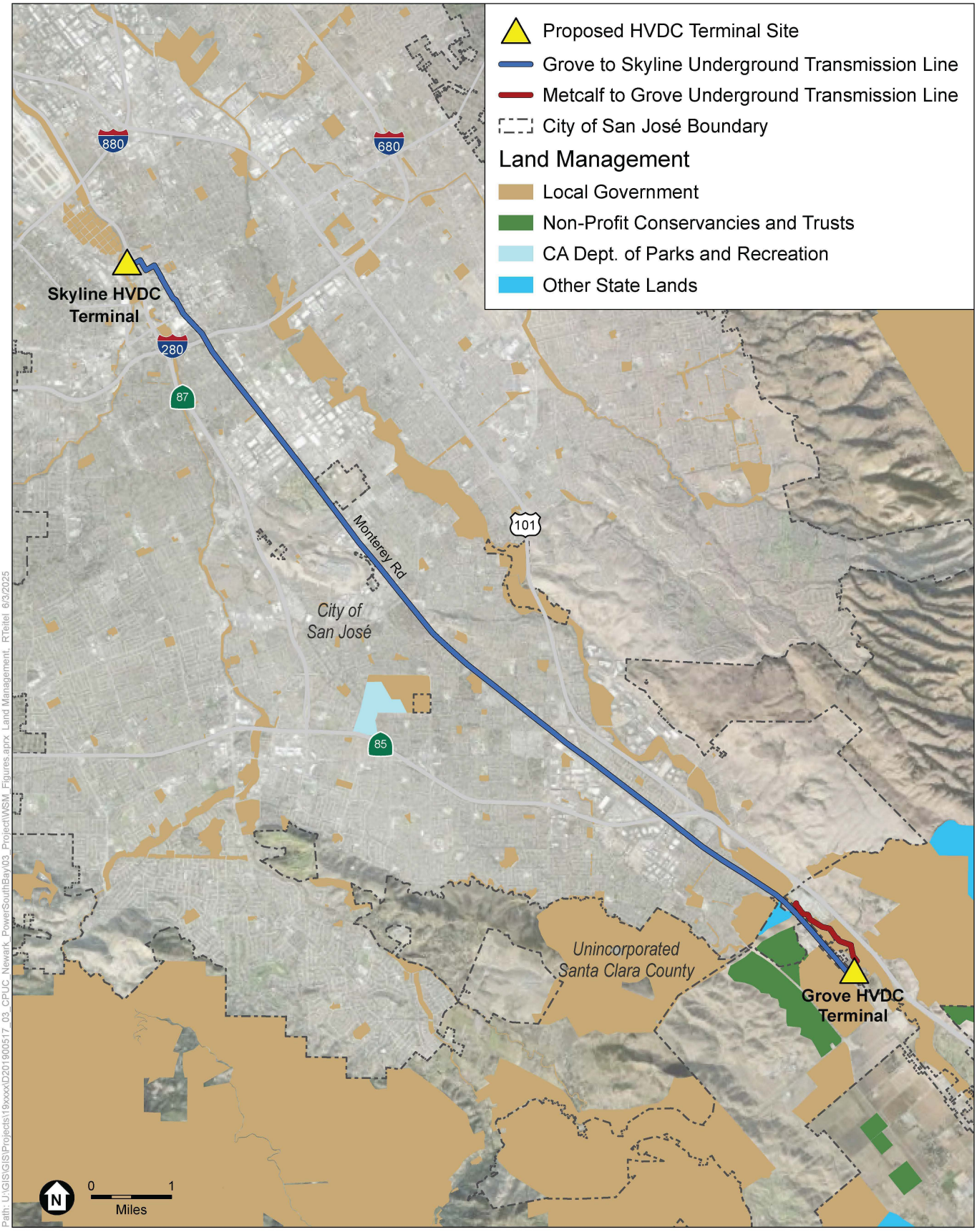
ESA



SOURCE: ESA, 2024; City of San José, 2024; Santa Clara County, 2024

Power Santa Clara Valley Project

Figure 3.11-2e
Zoning Designations



SOURCE: ESA, 2024; California Open Data, 2024

Power Santa Clara Valley Project

Figure 3.11-3
Land Management

3.11.1.2 High-Voltage Direct Current Terminals

Skyline High-Voltage Direct Current Terminal

The proposed Skyline High-Voltage Direct Current (HVDC) Terminal site would be located in the city of San José, at the corner of Santa Teresa Street and Ryland Street (see Figure 2-3a, *Project Transmission Alignment*). The proposed Skyline HVDC Terminal site currently consists of a highly disturbed, vacant, undeveloped lot, 10.6 acres in size (Assessor's Parcel Numbers [APNs] 259-23-020 and 259-23-024). The proposed Skyline HVDC Terminal site is within a former railyard from which the previously existing railyard facilities have been removed. The proposed Skyline HVDC Terminal site is zoned for Downtown Primary Commercial uses.

Surrounding land uses consist of the existing PG&E San Jose B Substation to the north, State Route 87 and planned development and residential uses to the east, commercial uses to the south, and the Guadalupe River Park and Trail to the west.

Grove High-Voltage Direct Current Terminal

The proposed Grove HVDC Terminal site would be located in both the city of San José and unincorporated Santa Clara County (see Figure 2-3d, *Project Transmission Alignment*). Approximately 3.3 acres of the site would be located within the city of San José (APNs 725-14-014 and 725-14-015). The remaining 10.3 acres would be located in unincorporated Santa Clara County (APNs 725-14-008 and 725-14-009) and are zoned for Exclusive Agriculture uses. The proposed Grove HVDC Terminal site is currently used as an orchard and includes a perimeter fence, a groundwater well, a deteriorating outbuilding, and a radial electric distribution line. The proposed Grove HVDC Terminal site is zoned for Planned Development within an Agricultural Base District.

The existing PG&E Metcalf Substation is approximately 0.65 mile north of the Project area. Surrounding land uses include office, industrial, and residential uses to the northwest; open space, Coyote Creek Parkway, and U.S. Highway 101 to the northeast; a private lot consisting of disturbed land from a past orchard and a residential structure to the southeast; and Monterey Road and agricultural uses to the southwest. The Coyote Valley corridor is also in the proposed Grove HVDC Terminal site vicinity. The Coyote Valley corridor is a 2,415-acre north–south running corridor along Coyote Valley and is a critical link for wildlife migrating between the Santa Cruz Mountains and the Diablo Range.

3.11.1.3 Transmission Lines

Grove to Skyline 320 kV Direct Current Underground Transmission Line

The proposed Grove to Skyline 320 kV Transmission Line would be approximately 13 miles and would be completely underground, mainly within existing public rights-of-way (ROWs) (see Figure 2-1, *Project Location*). The proposed Grove to Skyline 320 kV Transmission Line would connect the proposed Skyline HVDC Terminal to the proposed Grove HVDC Terminal, extending primarily along Bassett Street, Terraine Street, Devine Street, Market Street, First Street, and Monterey Road. Surrounding land uses consist of residential, commercial, industrial (light and heavy), transit, open space, developed parks, a convention center, and agriculture.

The final 1.5 miles of the proposed Grove to Skyline 320 kV Transmission Line's 13-mile routing would go through downtown San José. This final (northern) portion of the proposed Grove to Skyline 320 kV Transmission Line would begin at Interstate 280 underpass First Street and would continue along First Street and Market Street for the first 1.1 miles. Then, the transmission line would follow Devine Street west for 0.1 mile and then turn north on Terraine Street for 0.15 mile. Finally, the proposed Grove to Skyline 320 kV Transmission Line would turn west onto Bassett Street for 0.13 mile, then turn north over a parking lot to the proposed Skyline HVDC Terminal. See Figure 3.11-1 for further information

The zoning designations for the final 1.5 miles of the proposed Grove to Skyline 320 kV Transmission Line are as follows: Downtown Primary Commercial, Open Space, Public/Quasi Public, Combined Industrial/Commercial, Planned Development (Downtown Primary Commercial Base District), and Single-Family Residential (Up to Eight Dwelling Units per Acre).

The zoning designations for the portions to the east of the transmission line in the city of San José include the following:

- Mix Use Commercial.
- Combined Industrial/Commercial.
- Planned Development (Multiple Residence).
- Single-Family Residential (Up to Eight Dwelling Units per Acre).
- Commercial Neighborhood.
- Commercial General Development.
- Planned Development (Combined Industrial/Commercial Base District).
- Planned Development Agricultural Base District (A[PD]).
- General Commercial.
- Light Industrial, Industrial Park.
- Mobile Home Park.
- Multiple Residence District.
- Commercial Pedestrian.
- Single-Family Residential (Up to One Dwelling Unit per Acre).
- Planned Development (R-1-8 Low to Medium Density Residential Based District).
- Single-Family Residential (Up to Eight Dwelling Units per Acre).
- Agriculture.

The zoning designations for the portions to the west of the transmission line within the city of San José include the following:

- Commercial Pedestrian.

- Combined Industrial/Commercial.
- Mixed Use Commercial, Public/Quasi-Public.
- Transit Residential.
- Planned Development (Light Industrial Base District).
- Commercial Neighborhood.
- General Commercial.
- Planned Development Agriculture Base District (A[PD]).
- Light Industrial.
- Heavy Industrial.
- Planned Development (Heavy Industrial).
- Single-Family Residential (Up to Eight Dwelling Units per Acre).
- Planned Development (R-1-8 Low to Medium Density Residential Based District).
- Mobile Home Park.
- Industrial Park.
- Industrial Park.
- Agriculture.
- Open Space.

For further details on zoning designations, see **Table 3.11-1**.

Metcalf to Grove 500 kV Alternating Current Underground Transmission Line

The proposed Metcalf to Grove 500 kV Transmission Line would be completely underground and would be located within both the city of San José and Santa Clara County (see Figure 2-3d). Approximately 1 mile of the proposed 1.2-mile-long Metcalf to Grove 500 kV Transmission Line would be located within Coyote Ranch Road, and the remaining 0.2 mile would traverse undeveloped and natural areas on Santa Clara County land. Surrounding land uses consist of agriculture and open space within the city of San José and a regional park in Santa Clara County. The zoning designations associated with the proposed Metcalf to Grove 500 kV Transmission Line within Santa Clara County is Exclusive Agriculture and within the city of San José is Planned Development Agriculture Base District.

Skyline to San Jose B 230 kV Alternating Current Overhead Transmission Tie Line

The proposed Skyline to San Jose B 230 kV Transmission Tie Line would be an approximately 100-foot-long overhead segment located in the city of San José within the proposed Skyline HVDC Terminal and the expanded PG&E San Jose B Substation (see Figure 2-3aThe zoning designations associated with the transmission tie line are Downtown Primary Commercial and Combined Industrial/Commercial. Surrounding land uses consist of the existing PG&E San Jose

B Substation to the north, State Route 87 to the east, commercial uses to the south, and Guadalupe River Park and Trail to the west.

TABLE 3.11-1
JURISDICTIONS OF THE PROJECT SITES AND ALIGNMENTS

Project Component	City/County	General Plan Land Use Designation	Zoning Designation	Distance/ Area
Skyline HVDC Terminal	San José	Downtown, Commercial Downtown	Downtown Primary Commercial	10.6 acres
Grove HVDC Terminal	San José	Agriculture	Planned Development Agriculture Base District (A[PD])	3.3 acres
	Unincorporated Santa Clara County	Agriculture Large Scale	Exclusive Agriculture (A-40Ac)	10.3 acres
Grove to Skyline 320 kV DC Underground Transmission Line	San José	Agricultural, Commercial Downtown, Combined Industrial/Commercial	Planned Development Agriculture Base District (A[PD]), Combined Industrial/Commercial, Downtown Primary Commercial	12.7 miles
	Unincorporated Santa Clara County	Agriculture Large Scale, Regional Parks, Existing	Heavy Industrial, Exclusive Agriculture (A-40Ac)	0.3 mile
Metcalf to Grove 500 kV AC Underground Transmission Line	San José	Open Hillside	Planned Development Agriculture Base District (A[PD])	0.2 mile
	Unincorporated Santa Clara County	Regional Parks, Agriculture Large Scale	Exclusive Agriculture (A-20 Ac), Exclusive Agriculture (A-40Ac)	1 mile
Skyline to San Jose B 230 kV AC Overhead Transmission Tie Line	San José	Commercial Downtown, Combined Industrial/ Commercial	Downtown Primary Commercial	200 feet
PG&E Metcalf Substation	Unincorporated Santa Clara County	Major Gas and Electric Utilities, Regional Parks	Exclusive Agriculture (A-20 Ac)	47 acres
PG&E San Jose B Substation	San José	Combined Industrial/ Commercial, Downtown, Commercial Downtown	Combined Industrial/Commercial, Downtown Primary Commercial	2.1 acres
Coyote Ranch Road Realignment	Unincorporated Santa Clara County	Regional Parks	Exclusive Agriculture (A-20 Ac)	850 feet
Coyote Creek Trail Realignment	Unincorporated Santa Clara County	Regional Parks	Exclusive Agriculture (A-20 Ac)	2,300 feet
PG&E Water Line	San José	Open Hillside	Agriculture, Single-Family Residential (Up to One Dwelling Unit per Acre)	0.29 miles
	Unincorporated Santa Clara County	Major Gas and Electric Utilities	Exclusive Agriculture (A-20 Ac)	40 feet
Staging Area 1	San José	Agriculture	Planned Development Agriculture Base District (A[PD])	3.2 acres
	Unincorporated Santa Clara County	Agriculture Large Scale	Exclusive Agriculture (A-40Ac)	3.4 acres
Staging Area 2	Unincorporated Santa Clara County	Regional Parks, Major Gas and Electric Utilities	Exclusive Agriculture (A-20 Ac)	7.8 acres
Staging Area 3	Unincorporated Santa Clara County	Regional Parks, Major Gas and Electric Utilities	Exclusive Agriculture (A-20 Ac)	9.3 acres
Staging Area 4	San José	Mixed Use Neighborhood	Planned Development Agriculture Base District (A[PD])	4.0 acres
Staging Area 5	San José	Combined Industrial/Commercial	Combined Industrial/Commercial	2.2 acres

TABLE 3.11-1
JURISDICTIONS OF THE PROJECT SITES AND ALIGNMENTS

Project Component	City/County	General Plan Land Use Designation	Zoning Designation	Distance/ Area
Staging Area 6	Unincorporated Santa Clara County	Light Industrial	Light Industrial	12.6 acres
Staging Area 7	San José	Heavy Industrial, Combined Industrial/ Commercial	Heavy Industrial, Combined Industrial/Commercial	6.1 acres
Staging Area 8	San José	Heavy Industrial	Heavy Industrial	3.1 acres
Staging Area 9	San José	Combined Industrial/ Commercial, Heavy Industrial	Combined Industrial/Commercial, Heavy Industrial	5.1 acres
Staging Area 10	San José	Downtown	Downtown Primary Commercial	2.1 acres
Staging Area 11	San José	Downtown	Downtown Primary Commercial	1.6 acres
Staging Area 12	San José	Downtown	Downtown Primary Commercial	2.9 acres

NOTES:

A-20Ac = agricultural uses with minimum parcel sizes of 20 acres; A-40Ac = agricultural uses with minimum parcel sizes of 40 acres; AC = alternating current; A(PD) = Planned Development Agricultural Base District; DC = direct current; HVDC = high-voltage direct current; kV = kilovolt.

SOURCE: Data compiled by Environmental Science Associates in 2025 (City of San José 2024, Santa Clara County 2024).

3.11.1.4 Existing PG&E Substations

PG&E San Jose B Substation

The existing PG&E San Jose B Substation is a 115 kV transmission substation. The existing substation facility occupies an area of 2.1 acres and is located in the city of San José (see Figure 2-3a). The substation is currently connected to four 115 kV transmission lines and 17 distribution lines. The zoning designations at the PG&E San Jose B Substation are Downtown Primary Commercial and Combined Industrial/Commercial.

To accommodate the new Project facilities, PG&E would conduct modifications to the existing PG&E San Jose B Substation. See Chapter 2, Section 2.6.3, *Existing PG&E Substations*, for further detail on modifications to the PG&E San Jose B Substation.

PG&E Metcalf Substation

The existing PG&E Metcalf Substation is a 500/230/115 kV transmission substation that occupies 47 acres within unincorporated Santa Clara County (see Figure 2-3d). An additional 11 acres on the substation site parcel are currently used for material storage and as an operation and maintenance support facility. The zoning designation at the PG&E Metcalf Substation is Exclusive Agriculture.

To accommodate the new Project facilities, PG&E would conduct modifications, expand, and rebuild the existing PG&E Metcalf Substation. See Chapter 2, Section 2.6.3, *Existing PG&E Substations,* for further information on modifications to the PG&E Metcalf Substation.

3.11.1.5 Ancillary Facilities

The Project would include road and trail improvements and utility relocations. Coyote Ranch Road would be realigned to straighten and minimize roadway bends on Santa Clara County Parks land. The new road alignment of Coyote Ranch Road would be 850 feet long and 20 feet wide (see Figure 2-3d). A new turnaround at the entrance of Coyote Ranch would be installed on Santa Clara County Parks land to allow more efficient ingress and egress to Coyote Ranch.

Coyote Creek Trail would be realigned alongside Coyote Ranch Road, which is also on Santa Clara County Parks land (see Figure 2-3d). The Coyote Creek Trail alignment would be approximately 2,300 feet long and 12 feet wide. The sites where the trail and road realignments would occur are on land zoned for Exclusive Agriculture. See Chapter 2, Section 2.5.4, *Ancillary Facilities*, for further information on ancillary facilities.

The relocation of third-party utilities would be required in areas of conflict. The utility relocations may include sanity sewer, stormwater, gas, water, electrical, and telecommunication. However, the exact utility and relocation alignments are not known at the time of publication of this Draft EIR. See Chapter 2, Section 2.8.3, *Site Preparation*, for further detail on potential utility relocations.

Table 3.11-1 summarizes the distance/area of the Project components that would be located within municipal jurisdictions (i.e., within city of San José or unincorporated Santa Clara County).

3.11.2 Regulatory Setting

3.11.2.1 Federal

Habitat Conservation Plans

The Project is located in the Santa Clara Valley Habitat Conservation Plan (HCP) habitat study area (Santa Clara County 2012). The HCP was established by Santa Clara County; the cities of San José, Morgan Hill, and Gilroy; the Santa Clara Valley Water District; and the Santa Clara Valley Transit Authority. The HCP's objective is to maintain a reserve system that focuses on preservation and enhancement actions that provide for the protection of species, natural communities, and ecosystems. Additionally, the HCP aims to standardize the mitigation and compensation requirements for species listed under the federal Endangered Species Act and California Endangered Species Act.

Section 10 of the federal Endangered Species Act allows for the creation of HCPs to protect listed and candidate species in conjunction with the issuance of an incidental take permit for federally listed as endangered species. PG&E's San Francisco Bay Area operation and maintenance HCP (Bay Area operation and maintenance HCP) covers operation and maintenance activities for PG&E's electric and gas transmission and distribution systems across 34 counties in California. In 2017, PG&E began implementing the Bay Area operation and maintenance HCP, which covers the nine counties that surround the San Francisco Bay, including Santa Clara County (PG&E 2017). Although Project construction is not a "covered activity" under the plan, the Project area is located within the geographical boundaries of the Bay Area operation and maintenance HCP. The

applicability of the Bay Area operation and maintenance HCP to the Project is further discussed in Section 3.4, *Biological Resources*.

3.11.2.2 State

Assembly Bill 948: Coyote Valley Conservation Program

On September 27, 2019, California Governor Gavin Newsom signed Assembly Bill 948, formally recognizing the Coyote Valley Program Area as a resource of statewide importance and creating opportunities for its protection and conservation. Assembly Bill 948 authorizes the Santa Clara Valley Open Space Authority to create a Coyote Valley Conservation Program. This program would enhance existing recreation and conservation programs and engage in land-use decisions around Coyote Valley. The Santa Clara Valley Open Space Authority is currently in the planning process to develop the Coyote Valley Conservation Areas Master Plan and expects to begin drafting the plan in late 2026 (Santa Clara Valley Open Space Authority 2019).

California Public Utilities Commission, General Order 131-D

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction. In locating such projects, pursuant to Section XIV(B), public utilities shall consult with local agencies regarding land use matters (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for land use consultation and informational purposes, the goals and policies of local general plans and other planning documents pertaining to land use and planning that would otherwise be relevant to the Project and alternatives are described below.

3.11.2.3 Local

Association of Bay Area Governments

The Association of Bay Area Governments (ABAG) is part regional planning agency and part local government service provider. ABAG and the Metropolitan Transportation Commission work with cities and counties to develop land use plans that map to the Bay Area's current and future needs. ABAG adopted the updated Plan Bay Area 2050+ in October 2021, which is a limited and focused update to Plan Bay Area 2050, the region's visionary long-range plan. Plan Bay Area 2050 centers around 35 strategies that span transportation, housing, the economy, and the environment, all aimed at making the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. Plan Bay Area 2050+ is an opportunity to refine select plan strategies to integrate the lessons of the last 3 years. A majority of the Project is located in a Priority Development Area, which refers to places near public transit that are planned for new homes, jobs, and community amenities (ABAG 2021).

Santa Clara County

Appendix I, Zoning, of the Santa Clara County Municipal Code provides the Zoning Ordinance for Santa Clara County. The Zoning Ordinance promotes and protects the public health, safety, peace, comfort, convenience, and general welfare of the county (Santa Clara LAFCO 2024). As

outlined in Table 3.11-1, all Project components within unincorporated Santa Clara County are on lands zoned as Exclusive Agriculture. Chapter 2.20, Rural Base Districts, of the Santa Clara County Municipal Code states that utilities are an allowable land use for the Exclusive Agriculture rural base district, provided they are permitted with architecture and site approval. Additionally, the ordinance code states that utility structures and facilities may be exempt from local zoning regulations if they are established by a government agency (Santa Clara LAFCO 2024).

The Santa Clara County General Plan was adopted on December 20, 1994 (Santa Clara County 1994). The strategies and policies outlined in the General Plan at the countywide level acknowledge the importance of agriculture to the County as a whole and the need for multi-jurisdictional efforts to continue to preserve agricultural lands and the rural character of agricultural areas. The Project is located within lands designated in the Santa Clara County General Plan as Agriculture Large Scale and zoned Exclusive Agriculture.

The Santa Clara County General Plan includes the following relevant land use policies and are provided for informational purposes:

> ***Policy C-GD 2*****:** Urban development shall occur only within cities' urban service areas (USAs) and under City jurisdiction. The County shall not allow urban development on unincorporated lands outside cities' urban service areas.
>
> ***Policy C-GD 7*****:** Urban expansion should be planned on a staged, orderly basis, consistent with applicable plans (e.g. city, County, countywide plans) and the availability of needed urban services and facilities. The discouragement of expansion of cities' Urban Service Areas should be recommended to the LAFCO.
>
> ***Policy C-GD 17*****:** Planning for Coyote Valley's future development should provide for the following in the area of resource conservation:
>
> a. permanent preservation of hillsides in open space;
> b. retention of a greenbelt of non-urban uses and densities between San José and Morgan Hill; and
> c. protection of a scenic corridor adjacent to Highway 101.
>
> ***Policy C-GD 18*****:** Anticipated impacts on the South County cities and other jurisdictions from development in Coyote Valley should be adequately mitigated to less than significant levels.
>
> ***Policy R-GD 3*****:** Land uses and development permitted under County jurisdiction shall be consistent with the following major County policies:
>
> a. conservation of natural resources;
> b. avoidance of natural hazards and the prevention of pollution which could pose a threat to public health, safety, and welfare;
> c. minimizing demand for public services and costs to the general public of providing and maintaining services;
> d. preservation of rural character, rural lifestyle opportunities, and scenic resources;
> e. preservation of agriculture; and

f. preventing unwanted or premature development that would preclude efficient conversion to urban uses and densities in areas suitable and intended for future annexation.

***Policy R-GD 7*:** In rural unincorporated areas, if there is an unpreventable areawide problem which can only be solved by extension of services by special district, assessment district, or private utility, then this form of service may be approved, with the following restrictions:

a. the amount of increased service capacity will not exceed the identified need and the planned level of development; and

b. the level of service capacity is consistent with that of other services provided or planned for the area.

***Policy R-RC 61*:** Allowable land uses in exclusive agricultural areas shall be limited to:

a. agriculture and ancillary uses;

b. uses necessary to directly support local agriculture; and

c. other uses compatible with agriculture which clearly enhance the long-term viability of local agriculture and agricultural lands.

***Policy R-LU 11*:** Allowable land uses shall be limited to: a. agriculture and ancillary uses; b. uses necessary to directly support local agriculture; and c. other uses compatible with agriculture which clearly enhance the long term viability of local agriculture and agricultural lands

***Policy R-LU 14*:** For areas designated 'Agriculture-Large Scale,' minimum parcel sizes shall be no less than 40 acres.

***Policy R-LU 149*:** The Monterey Highway Use Permit Area shall consist of properties with access to and fronting on Monterey Road from Metcalf Road south to the County boundary, excluding the Urban Service Areas of the cities of San José, Morgan Hill, and Gilroy and lands within the San Martin Commercial and Industrial Use Permit Areas.

***Policy R-LU 150*:** While the predominant land use in the rural unincorporated areas of South County is agriculture, the County recognizes that there are along Monterey Road, within the areas designated 'Agriculture' and 'Rural Residential,' established, non-agricultural land uses serving the South County community. It is the policy of the County that they continue within the 'Agriculture' and 'Rural Residential' land use designations so that the needs of the South County may be served, provided that their legal status is secured in conformance with the following policies.

***Policy R-LU 151*:** Legally established land uses fronting Monterey Highway, south of Metcalf Road, in areas designated 'Agriculture' and 'Rural Residential' shall continue as allowable uses by right or by use permit, depending on the regulations governing their original establishment. To protect the area from undesirable strip commercial development, additional service uses will not be extended along Monterey Road.

***Policy R-LU 152*:** Legal uses established as of January 1, 1985, may be expanded or modified through the use permit application process, with Architectural and Site Approval conditions to be included within the use permit, if it is found that the expanded or modified use:

a. is essential or desirable to the public convenience or welfare of the South County community;

b. will not cause significant adverse impact upon the environment;

c. will not be detrimental to the public health, safety, and general welfare;

d. is compatible with the surrounding area;

e. will be upgraded to and can meet the requirements and standards of all applicable regulating agencies and ordinances; and

f. will improve such conditions as traffic safety, water quality and drainage, working conditions for on-site workers, and the visual quality of the environment.

[This policy shall not apply to off-site advertising].

***Policy SC 14.11*:** In order to separate agricultural from urban activities, and to minimize land use conflicts, buffers should be established between viable agricultural areas and urban expansion areas. Activities in these buffer zones should be limited to uses which are compatible with both agricultural and urban activities. Specific uses should be defined through an open intergovernmental process.

Santa Clara Local Agency Formation Commission

The Santa Clara Local Agency Formation Commission (LAFCO) is a state-mandated independent local agency established to oversee the boundaries of cities and special districts in Santa Clara County. The Santa Clara LAFCO's mission is to promote sustainable growth and good governance in the county by preserving agricultural lands and open space, curbing urban sprawl, encouraging efficient delivery of services, exploring and facilitating regional opportunities for fiscal sustainability, and promoting public accountability and transparency of local agencies. The Santa Clara LAFCO states that the Project within unincorporated Santa Clara County is located within the San José SOI (Santa Clara County 2024). According to the Santa Clara County Zoning Ordinance (Section 1.30.030), land within the SOI of a particular city is subject to the land use policies of that city's General Plan, in addition to being regulated by the County Zoning Ordinance (Santa Clara LAFCO 2024).

City of San José

Title 20, Zoning, of the San José Municipal Code outlines the San José Zoning Code. The purpose of this title is to promote and protect the public peace, health, safety, and general welfare of the city (City of San José 2024a). See Table 3.11-1 for the zoning designations within the Project vicinity.

San José Municipal Code 20.70, Downtown Zoning Regulations, states that private electrical power generation facilities are a conditional use requiring planning commission approval. San José Municipal Codes 20.20, *Open Space and Agricultural Zoning Districts*, 20.30, *Residential Zoning District*, 20.40, *Commercial Zoning Districts and Public/Quasi-Public Zoning Districts*, 20.50, *Industrial Zoning Districts*, 20.55, *Urban Village and Mixed Use Zoning Districts*, and 20.75, *Pedestrian Oriented Zoning Districts*, state that utility facilities are allowed as a conditional use in compliance with a conditional use permit.

San José Municipal Code 20.60, *Planned Development Districts*, states that, unless and until a planned development permit has been issued and effectuated, property in such territory may be used only as if it were in its base district alone. The portions of the Project within the city of San José are zoned Planned Development within the following base districts: Industrial, Commercial, Downtown, Residential, and Agricultural. As previously mentioned, the permitting requirements for the base districts state that utility facilities are allowed as a conditional use in compliance with a conditional use permit.

Pursuant to Chapter 20.100, *Administration and Permits*, conditional uses may be allowed, as an independent use, but only upon issuance of and in compliance with a conditional use permit approved by the Planning Commission, or City Council on appeal (City of San José 2024a).

Envision San Jose 2040 General Plan

The *Envision San José 2040 General Plan* was adopted on November 1, 2011, and amended on October 24, 2024 (City of San José 2024b). The *Envision San José 2040 General Plan* states that construction and maintenance of infrastructure is necessary to support existing and planned land uses and to achieve Environmental Leadership, Innovative Economy, Healthful Neighborhoods, and other City goals. The *Envision San José 2040 General Plan* includes the following relevant infrastructure policies and are provided for informational purposes:

> ***Policy IN-1.3*:** Provide sustainable utility services and infrastructure in a cost-efficient manner consistent with Envision General Plan goals and policies related to Fiscal Sustainability.
>
> ***Policy IN-1.6*:** Ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage oversizing of infrastructure which could contribute to growth beyond what was anticipated in the Envision General Plan.
>
> ***Policy IN-1.9*:** Design new public and private utility facilities to be safe, aesthetically pleasing, compatible with adjacent uses, and consistent with the Envision General Plan goals and policies for fiscal sustainability, environmental leadership, an innovative economy, and quality neighborhoods.
>
> ***Policy IN-1.10*:** Require undergrounding of all new publicly owned utility lines. Encourage undergrounding of all privately owned utility lines in new developments. Work with electricity and telecommunications providers to underground existing overhead lines.
>
> ***Policy IN-1.11*:** Locate and design utilities to avoid or minimize impacts to environmentally sensitive areas and habitats.
>
> ***Policy IN-2.1*:** Utilize the City's Infrastructure Management System Program to identify the most efficient use of available resources to maintain its infrastructure and minimize the need to replace it.
>
> ***Policy IN-2.2*:** Explore new methods to supplement the City's existing resources devoted to the operation and maintenance of its infrastructure and facilities.

The *Envision San José 2040 General Plan* includes the following relevant agricultural land use policies and are provided for informational purposes:

> ***Policy LU-12.3*****:** Protect and preserve the remaining farmlands within San José's sphere of influence that are not planned for urbanization in the timeframe of the Envision General Plan through the following means:
>
> - Limit residential uses in agricultural areas to those which are incidental to agriculture.
> - Restrict and discourage subdivision of agricultural lands.
> - Encourage contractual protection for agricultural lands, such as Williamson Act contracts, agricultural conservation easements, and transfers of development rights.
> - Prohibit land uses within or adjacent to agricultural lands that would compromise the viability of these lands for agricultural uses.
> - Strictly maintain the Urban Growth Boundary in accordance with other goals and policies in this Plan.
>
> ***Policy LU-20.1*****:** Protect and preserve the remaining farmlands within San José's sphere of influence that are not planned for urbanization in the timeframe of the Envision General Plan, such as mid- and south Coyote Valley, through the following means:
>
> 1. Strongly discourage conversion of agricultural lands outside the Urban Growth Boundary to non-agricultural uses.
> 2. Limit residential uses in agricultural areas to those which are incidental to agriculture.
> 3. Prohibit subdivision of agricultural lands unless it can be established that the subdivision would not reduce the overall agricultural productivity of the land and that viable agricultural operations would be sustained.
> 4. Encourage contractual protection for agricultural lands, such as Williamson Act contracts, agricultural conservation easements, transfers of development rights, or other property tax relief measures as incentives for preservation of these lands.
> 5. Restrict land uses within and adjacent to agricultural lands that would compromise the agricultural viability of these lands. Require new adjacent land uses to mitigate any impacts on the use of agricultural lands.
> 6. Require ancillary non-agricultural land uses on agricultural lands to be ancillary to and compatible with agricultural land uses, agricultural production, and the rural character of the area, and to enhance the economic viability of agricultural operations.

Section 3.2**,** *Agriculture and Forestry Resources,* provides additional details on agricultural policies.

3.11.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed by LSPGC and PG&E to reduce Project impacts. Each utility company will be responsible for implementing its respective measures for its portion of the Project.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Chapter 2, Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.11.3.1 Applicant-Proposed Measures

LSPGC has not proposed any Applicant-proposed measures pertaining to land use and planning resources within its portion of work for the Project.

3.11.3.2 PG&E Best Management Practices and Field Protocols

PG&E has not proposed any best management practices or field protocols pertaining to land use and planning resources within its portion of work for the Project.

3.11.4 Significance Criteria

According to Appendix G of the CEQA *Guidelines*, the Project would result in a significant land use and planning impact if it would do any of the following:

a) Physically divide an established community.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.11.5 Direct and Indirect Effects

3.11.5.1 Approach to Analysis

This impacts analysis considers the land use impacts associated with the construction, operation, and maintenance of the Project. The location of the Project site relative to established communities and the nature of the proposed use were evaluated, including consistency with local land use and planning documents and requirements, to determine whether the Project would result in a significant change to existing land use and planning conditions.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.11.5.2 Impact Assessment

Criterion a) Whether the Project would physically divide an established community.

Project construction and operation and maintenance would not physically divide an established community, and no impact would occur. (*No Impact*)

During operation and maintenance, LSPGC would remotely monitor the Project from its off-site control center, and local maintenance staff would perform routine maintenance and emergency response, which are expected to be infrequent activities not involving a physical separation or divide of an established community. Furthermore, the majority (99.7%) of the Project's proposed transmission lines would be underground, and even where overhead, the proposed transmission line would not impede travel between communities once constructed. Operation and maintenance for the expansion and modifications at PG&E San Jose B and PG&E Metcalf substations would be similar to those currently performed by PG&E for these existing substations. The Project would not include the operation of permanent components that would physically separate or divide portions of an established community.

Construction and operation and maintenance activities would not result in a physical separation or divide of an established community. As described in Section 3.11.1, *Environmental Setting*, the proposed Skyline HVDC terminal would be located in downtown San José, adjacent to the existing PG&E San Jose B Substation. There is currently no public access to either the proposed Skyline HVDC Terminal site or existing PG&E San Jose B Substation. Proposed uses at the proposed Skyline HVDC Terminal site and the existing PG&E San Jose B Substation would be consistent with the city of San José land use and zoning designations; therefore, the proposed Skyline HVDC Terminal and modifications to the existing PG&E San Jose B Substation would not physically divide established communities.

Construction activities related to the proposed Grove HVDC Terminal and the existing PG&E Metcalf Substation would not result in a physical separation or divide of an established community. As described in Section 3.11.1, *Environmental Setting*, the proposed Grove HVDC Terminal would be located on agricultural land in unincorporated Santa Clara County, 0.65 mile south of the existing PG&E Metcalf Substation. The site contains existing agricultural uses consisting of an active orchard with a perimeter fence, a well, a deteriorating outbuilding, and a radial electric distribution line. The existing orchard does not allow public access within the site and is, therefore, not an established community. There is currently no public access to either the Grove HVDC Terminal site or PG&E Metcalf Substation. The proposed new Grove HVDC Terminal site and the PG&E Metcalf Substation would be consistent with the city of San José and Santa Clara

County land use and zoning designations; therefore, the proposed Grove HVDC Terminal and the PG&E Metcalf Substation would not physically divide established communities.

The proposed Grove to Skyline 320 Transmission Line would be located underground within existing roadway ROWs in the city of San José and unincorporated Santa Clara County. The Skyline to San Jose B transmission tie line would be located in the city of San José within the proposed Skyline HVDC Terminal and the expanded PG&E San Jose B Substation site. Approximately 1 mile of the proposed Metcalf to Grove 500 kV Transmission Line would be located within Coyote Ranch Road, and approximately 0.2 mile would traverse undeveloped natural areas, including undisturbed woodland habitat and the Coyote Creek Trail. Proposed uses along the proposed transmission line are consistent with land use and zoning designations; therefore, the proposed Grove to Skyline 320 kV Transmission Line and proposed Skyline to San Jose B 230kV Transmission Tie Line would not physically divide established communities.

Criterion b) Whether the Project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

No local land use plans, policies, or regulations requiring discretionary approval would apply to the Project, as the CPUC has sole and exclusive jurisdiction over the siting and design of such facilities, pursuant to General Order 131-D. However, as discussed in Section 3.11.2, *Regulatory Setting*, General Order 131-D, Section XIV.B requires that when locating a project, "the public utility shall consult with local agencies regarding land use matters." Therefore, the following land use consistency analysis is provided for land use consultation and informational purposes only. (*No Impact*)

Portions of the proposed Grove HVDC Terminal, proposed Metcalf to Grove 500 kV Transmission Line, and Grove to Skyline 320 kV Transmission Line and the entirety of the existing PG&E Metcalf Substation would be located within unincorporated Santa Clara County and within the city of San José SOI. The Santa Clara County General Plan states that "in rural unincorporated areas, if there is an unpreventable areawide problem which can only be solved by extension of services by private utility, then this form of service may be approved" (Santa Clara County 1994). As mentioned in Chapter 2, Section 2.2, *Project Objectives*, the Project would help ensure the reliability of the California Independent System Operator-controlled grid in the South Bay area. Additionally, as discussed in Section 3.11.2*, Regulatory Setting*, the Santa Clara County ordinance code states that utility structures and facilities may be exempt from local zoning regulations if they are established by a government agency. Therefore, the portions of the Project located within unincorporated Santa Clara County are consistent with General Plan policies and the Santa Clara County Zoning Ordinance.

In the city of San José, all zoning designations allow for utilities and power generation-related uses (City of San José 2024a). Therefore, the Project would be consistent with the city of San José Municipal Code (see Section 3.11.2, *Regulatory Setting*, for more information on zoning ordinances).

The proposed Grove to Skyline 500 kV Transmission Line and the proposed Metcalf to Grove 500 kV Transmission Line would be located underground within existing ROWs in both the city of San José and unincorporated Santa Clara County. The proposed Skyline to San Jose B 230 kV Transmission Tie Line would be located within the expanded PG&E San Jose B Substation and the proposed Skyline HVDC Terminal, which are consistent with local land use regulations. Proposed uses of the Project are compatible with the Santa Clara County Municipal Code and San José Municipal Code, which would require specific permits to be obtained before construction. The Project would not conflict with development in the immediate neighborhood because it would be developing a similar electric utility infrastructure site next to, or near, an existing substation. Additionally, the construction of the proposed transmission lines would be temporary and are located on ROWs and on terminal sites. These changes would not create an incompatible land use with existing uses.

The PG&E Metcalf and PG&E San Jose B substations upgrades would occur within and adjacent to the existing substation facilities, and the proposed water line, which would be extended to the PG&E Metcalf Substation, would be installed underground within PG&E property. Additionally, Coyote Ranch Road and the Coyote Creek Trail realignments would occur on land zoned as Exclusive Agriculture, which allows for the operation of utility infrastructure. Therefore, the proposed upgrades would be consistent with the existing character of the area and would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Portions of the staging areas within Santa Clara County are zoned as Exclusive Agriculture. In Santa Clara County, utilities are allowable land use for the Exclusive Agriculture rural base district, provided they are permitted with architecture and site approval. Additionally, the ordinance code states that utility structures and facilities may be exempt from local zoning regulations if they are established by a government agency (Santa Clara County 2024). Portions of the staging areas within the city of San José are zoned as Planned Development within an Agricultural Base District, Combined Industrial/Commercial, Heavy Industrial, Light Industrial, and Downtown Primary Commercial. In the city of San José, utility facilities are allowed as a conditional use in compliance with a conditional use permit (City of San José 2024a).

As the Project is exempt from land use designations and zoning permitting within each of the previously mentioned jurisdictions under General Order 131-D, Section XIV.B, there would be no impact from any conflicts with land use designations, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. LSPGC would consult with local agencies on land use matters in compliance with General Order 131-D, Section XIV.B.

3.11.6 Cumulative Effects Analysis

This cumulative impacts analysis considers whether the incremental direct and indirect impacts of the Project could combine with the incremental impacts of past, present, or reasonably foreseeable probable future projects to cause or contribute to potential significant cumulative impacts on land use and planning as a result of the physical division of an established community

or conflict with any land use plan, policy, or regulation. This analysis assumes full build-out of the projects listed in Section 3.0.3.1, *Cumulative Effects Approach.* Because decommissioning would not be part of the Project, the temporal scope for analysis of cumulative effects would be permanent. The projects listed in Table 3.0-1, *Cumulative Projects List*, primarily include residential and mixed-use development projects. These projects, as well as other future developments, would be subject to the applicable city and/or county planning processes and state environmental review on a project-by-project basis.

3.11.6.1 Criterion a)

As discussed previously, Project operation would not physically divide an established community. Therefore, there would be no incremental impact that would be cumulatively considerable, and no cumulative impacts would occur associated with Project operation. (*No Impact*)

Project construction, in combination with the cumulative projects, would not physically divide an established community. *(No Impact*)

This analysis considers the Project in combination with existing and planned land uses in the surrounding area, including those within both the city of San José and Santa Clara County. The Project and surrounding projects included in the cumulative scenario have been subject to long-range planning efforts by local agencies, including the city of San José and Santa Clara County general plans. The Project, as well as other projects in the cumulative scenario, is consistent with the land use designations and planned growth outlined in the city of San José and Santa Clara County general plans. Therefore, as no significant land use conflicts are likely to occur, the Project would not result in a cumulative impact under this criterion.

3.11.6.2 Criterion b)

As discussed in Section 3.11.5, *Direct and Indirect Effects*, no local land use plans, policies, or regulations requiring discretionary approval would apply to the Project. Therefore, the Project, in combination with the cumulative projects, would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and there would be no cumulative impact. (*No Impact*)

3.11.7 References

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Santa Clara Valley Open Space Authority. 2019. Assembly Bill 948: Coyote Valley Conservation Program. 2019–2020. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB948. Accessed December 13, 2024.

3.12 Mineral Resources

This section evaluates the Project's potential impacts on mineral resources. It includes information about the physical and regulatory setting, and it identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to mineral resources.

3.12.1 Environmental Setting

3.12.1.1 Regional Setting

The Project area is located in the city of San José and in unincorporated areas of Santa Clara County. The Project area is in the southern portion of the San Francisco Bay Area, within the Coast Ranges Geomorphic Province, characterized by northwest–trending mountain ranges and valleys (CGS 2002). This province was mined for cinnabar, the primary ore for mercury, in the late 1820s until 1976, primarily in the New Almaden Mining District in southwestern San José (USGS 2002). The Project would not be located on any active or potential mining sites (USGS 2024). Although Santa Clara County has multiple known mineral resource deposits of regional or statewide significance, none are located within the Project area (Santa Clara County 1994).

3.12.1.2 Local Setting

In the city of San José and Santa Clara County, minerals known to exist include construction aggregate deposits of cement, gravel, sand, crushed rock, limestone, and clay (City of San José 2024; Santa Clara County 1994). To a lesser extent, Santa Clara County contains salts derived from evaporation ponds at the edge of San Francisco Bay (Santa Clara County 1994).

Mineral Land Classification under the Surface Mining and Reclamation Act

In accordance with the Surface Mining and Reclamation Act of 1975 (Public Resources Code Section 2710 et seq.), the California Geological Survey has identified and mapped the state's non-fuel mineral resources. This mapping illustrates areas where economically significant mineral deposits occur and where they are likely to occur, using the best available scientific data. These resources have been mapped using the California Mineral Land Classification System, which includes the following Mineral Resource Zones (MRZs):

- **MRZ-1:** An area where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2:** An area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.

- **MRZ-3:** An area containing mineral deposits for which the significance cannot be determined from available data.
- **MRZ-4:** An area where geological information does not rule out either the presence or absence of mineral resources.
- **Sector EE:** An area that is considered to have a high likelihood for the presence of MRZ-2 resources.

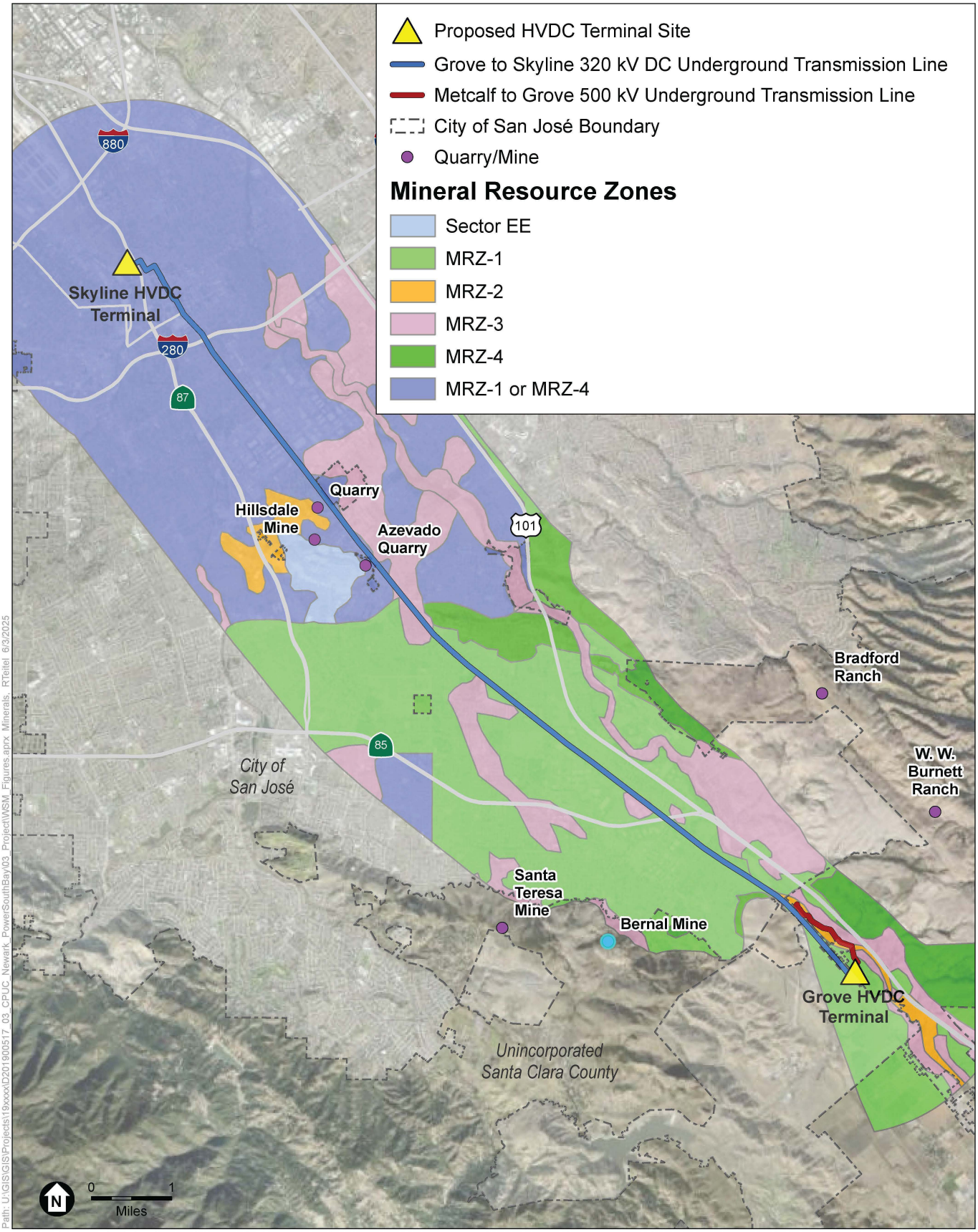
As shown in **Figure 3.12-1**, *Mineral Resource Zones*, MRZs 1, 2, 3, and 4 are all mapped within 0.5 mile of the Project. The proposed Skyline High-Voltage Direct Current (HVDC) Terminal site would be on land designated as MRZ-1 or MRZ-4, while the proposed Grove HVDC Terminal site would be on land mapped as MRZ-1. The proposed Grove to Skyline 320-kilovolt (kV) direct current underground transmission line (Grove to Skyline 320 kV Transmission Line) would traverse land mapped as MRZ-1, MRZ-1 or MRZ-4, and MRZ-3. The proposed Metcalf to Grove 500 kV alternating current underground transmission line (Metcalf to Grove 500 kV Transmission Line) would run through areas mapped as MRZ-1, MRZ-2, and MRZ-3.

The State Mining and Geology Board has designated the Communications Hill area as Sector EE (Figure 3.12-1), which contains mineral resources of regional significance for construction aggregate materials (City of San José 2024). No other areas in San José have been classified by the State Geologist or the State Mining and Geology board as containing mineral deposits of statewide significance subject to the Surface Mining and Reclamation Act (City of San José 2024).

The California Geologic Energy Management Division (CalGEM) oversees the drilling, operation, maintenance, and plugging and abandonment of oil, natural gas, and geothermal wells in California. CalGEM also tracks all known oil and gas wells. According to the CalGEM Well Finder service, no active or plugged oil wells are within 0.5 mile of the Project area (DOC 2024).

The Mineral Resources Data System, administered by the U.S. Geological Survey, provides data on mineral resources, including deposit name, location, commodity, production status, and deposit description. This data can be used to confirm the presence or absence of existing surface mines, closed mines, and unknown or undefined mineral resources. According to the available data, the Project is not located on any active or potential mining sites or critical mineral deposits (USGS 2024).

Three mineral resource locations are mapped within 0.5 mile of the Project area, including producers and past producers. As depicted in Figure 3.12-1, Azevedo Quarry would be located approximately 0.1 mile from the proposed Grove to Skyline 320 kV Transmission Line, which would run along Monterey Road. The California Department of Conservation lists Azevedo Quarry's primary product as rock and its lead agency as the State Mining and Geology Board (DOC 2016). The Azevedo Quarry is listed in the Santa Clara County General Plan as an operational quarry, although its attributes and location were last reported by the California Department of Conservation in 2015 (Santa Clara County 1994; DOC 2016). A second quarry is mapped approximately 0.15 mile west of the proposed Grove to Skyline 320 kV Transmission Line and is a producer of stone. The Hillsdale mine, a former producer of mercury, is mapped approximately 0.4 mile west of the proposed Grove to Skyline 320 kV Transmission Line.



SOURCE: ESA, 2024; CGS, 2024

Power Santa Clara Valley Project

Figure 3.12-1
Mineral Resource Zones

3.12.2 Regulatory Setting

3.12.2.1 Federal

Surface Mining Control and Reclamation Act of 1977

The Surface Mining Control and Reclamation Act of 1977 (United States Code Title 30, Sections 1201–1328) established a program for regulating surface mining and reclamation activities. The Act created mandatory, uniform standards for these activities on both state and federal lands, including a requirement to minimize adverse effects on fish, wildlife, and similar environmental values. It also established the Abandoned Mine Reclamation Fund, which is used for reclaiming and restoring land and water resources that have been adversely affected by mining practices.

3.12.2.2 State

California Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act of 1975 (Public Resources Code Section 2710 et seq.) requires the State Mining and Geology Board to adopt state policies for reclaiming mined lands and conserving mineral resources. These policies are outlined in the California Code of Regulations Title 24. In compliance with the law, the California Land Classification System aids in the identification and protection of mineral resources that are subject to urban expansion or other irreversible land uses that would preclude mineral extraction. Protected mineral resources include construction materials, industrial and chemical mineral materials, nonfluid mineral fuels, and metallic and rare minerals.

3.12.2.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to mineral resources that would otherwise be relevant to the Project and alternatives are described below.

Santa Clara County General Plan

The Santa Clara County General Plan (Santa Clara County 1994) includes the following strategies and policies related to mineral resources that are relevant to the Project:

1. Strategy #1: Ensure Continued Availability of Mineral Resources
2. Strategy #2: Mitigate the Environmental Impacts of Extraction and Transport
3. Strategy #3: Reclaim Sites for Appropriate Subsequent Uses

   ***Policy C-RC 44 and R-RC 67*:** Local supplies of mineral resources should be recognized for their importance to the local, regional, and state economy. Strategies for preserving and managing mineral resources include:

   - Ensuring continued availability of mineral resources to meet long term demand;

- Mitigating environmental impacts of extraction and transportation; and
- Reclaiming sites for appropriate subsequent land uses.

***Policy C-RC 45 and R-RC 68*:** Current and future demand for mineral resources in Santa Clara County, particularly construction aggregates, should be ensured by the following means:

- Inventorying existing sites, identifying and properly designating potential new sites for protection measures;
- Preserving deposits and access routes;
- Increased use of recycled material; and
- Proper development of new quarry sites.

***Policy C-RC 46 and R-RC 69*:** Existing sites and access routes for regionally significant resources should be protected from incompatible land uses and development that would preclude or unnecessarily limit resource availability.

***Policy C-RC 48*:** Reclamation for safe and beneficial future use of mineral resource extraction sites should be ensured through adequate planning, discretionary land use controls, and monitoring of reclamation plan implementation.

City of San José General Plan

The City of San José *Envision San José 2040 General Plan* (City of San José 2024) includes the following goal and policies related to mineral resources that are relevant to the Project:

Goal ER-11: Extractive Resources. Conserve and make prudent use of commercially usable extractive resources.

***Policy ER-11.1*:** When urban development is proposed on lands which have been identified as containing commercially usable extractive resources, consider the value of those resources.

***Policy ER-11.2*:** Encourage the conservation and development of SMARA-designated mineral deposits wherever economically feasible.

3.12.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility would be responsible for implementing its measures only for that part of the Project that it would own or for which it would be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the PG&E San Jose B Substation to a splice vault located at the PG&E Metcalf Substation. Specifically, at the northern end of the Project area, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the PG&E San Jose B Substation. At the southern end of the Project area,

LSPGC's scope would stop at a splice vault located at the western property line of the PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the portion of the Project involving modifications within the existing PG&E San Jose B and Metcalf substations. At the PG&E San Jose B Substation, PG&E would be responsible for the work starting from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E would be responsible for the work starting from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.12.3.1 Applicant-proposed Measures

No Applicant-proposed measures have been proposed by LSPGC to address potential effects on mineral resources.

3.12.3.2 PG&E Best Management Practices and Field Protocols

No PG&E best management practices or field protocols have been proposed to specifically reduce potential impacts on mineral resources.

3.12.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant impact on mineral resources if it would do any of the following:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

3.12.5 Direct and Indirect Effects

3.12.5.1 Approach to Analysis

To evaluate impacts of the Project on mineral resources, the proposed locations of Project components were compared with maps of known mineral resources of value to local, regional, and state jurisdictions to determine whether these Project components would be built on or otherwise limit access to these mineral resources.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.12.5.2 Impact Assessment

Criterion a) Whether the Project would result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state.

Impact 3.12-1: The Project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. (*Less than Significant*)

As discussed in Section 3.12.1, *Environmental Setting*, no active or plugged oil wells are in any portion of the Project's proposed transmission lines or proposed HVDC terminal sites. Additionally, no active or historic mining claims or operations are within the Project area. Construction and operation and maintenance of the Project would primarily occur on land that does not include known or inferred mineral resources that are of value to the region or residents of the state. Furthermore, much of the Project components would be situated in developed urban and industrial areas that are unlikely to be used for mineral extraction in the foreseeable future.

The Project transmission alignments would traverse MRZs, some of which may contain mineral resources. As stated in Section 3.12.1, *Environmental Setting*, land mapped as MRZ-2 is categorized as an area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence. In contrast, land mapped as MRZ-3 is classified as an area containing mineral deposits where the significance cannot be determined from available data. Although the proposed Metcalf to Grove 500 kV Transmission Line would run through areas mapped as MRZ-2 and MRZ-3, it would be constructed underground and almost exclusively within existing paved roadways that are not likely to be pursued for mineral resources due to conflicts with existing utility rights-of-way. Therefore, areas that the proposed Metcalf to Grove 500 kV Transmission Line would intersect and are mapped as MRZ-2 and MRZ-3 in Figure 3.12-1 would not be used for mineral extraction in the future, regardless of the Project. Similarly, segments of the proposed Grove to Skyline 320 kV Transmission Line would traverse land mapped as MRZ-3; however, this is within the highly urbanized city of San José, where mineral extraction is neither currently occurring nor likely to occur in the foreseeable future, regardless of the Project.

The remainder of the Project would be situated on land mapped as MRZ-1 or MRZ-4. The proposed Grove HVDC Terminal would be situated on land categorized as MRZ-1, while the proposed Skyline HVDC Terminal would be on land mapped as MRZ-1 or MRZ-4. As stated in Section 3.12.1, *Environmental Setting*, land mapped as MRZ-1 is categorized as an area where available geologic information indicates that no significant mineral deposits are present or where little likelihood exists for their presence. MRZ-4 is defined as an area where geologic information does not rule out either the presence or absence of mineral resources. However, sections of the Project area that contain MRZ-1 or MRZ-4 lands, such as the proposed Skyline HVDC Terminal, are in highly developed urban locations where mineral extraction is unlikely to occur in the foreseeable future. Furthermore, as discussed in Section 3.11, *Hazards and Hazardous Materials*, there is an existing hazards site on this property with a regulatory covenant in place, precluding mineral extraction activities.

Considering these factors, the Project's construction and operation and maintenance would not result in the loss of availability of any known mineral resources that would be of value to the region and residents of the state. Therefore, impacts would be **less than significant.**

Mitigation: None required.

Criterion b) Whether the Project would 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.

Impact 3.12-2: The Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. (*Less than Significant*)

The Project would have a significant impact if it were to result in the loss of availability of locally important mineral resource recovery sites delineated by local general plans. As established in Section 3.12.2, *Regulatory Setting*, the Project would not be situated on any mineral resource recovery sites delineated in the Santa Clara County or city of San José general plans. As discussed in Section 3.12.1, *Environmental Setting*, Azevedo Quarry is situated approximately 0.1 mile west of the Project and is identified by the Santa Clara County General Plan as an operational quarry. The quarry is accessible via Monterey Road, which could experience temporary lane closures during the construction of the proposed Grove to Skyline 320 kV Transmission Line, which would run directly along Monterey Road. Vehicles seeking access to the quarry may require alternative routes to avoid delays. In accordance with APM TRA-1, Traffic Control Plan, LSPGC would prepare a Traffic Control Plan to guide traffic, safeguard construction workers, provide safe passage, and minimize traffic impacts. Additionally, upon completion of construction activities, access to Azevedo Quarry would return to its pre-construction condition. Operation and maintenance would not affect access to the quarry except in the case of rare, temporary lane or road closures due to occasional maintenance or necessary repairs. Therefore, the construction and operation and maintenance would not result in the permanent loss of availability of locally important mineral resource recovery sites, and the impacts would be **less than significant**.

Mitigation: None required.

3.12.6 Cumulative Effects Analysis

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to mineral resources could occur if the incremental impacts of the Project would combine with the incremental impacts of one or more cumulative projects. Section 3.0 includes Table 3.0-1, *Cumulative Projects List*, which lists past, present, and reasonably foreseeable future projects in the vicinity of the Project. As identified in the table, there are several cumulative projects adjacent to the Project.

The geographic area affected by the Project and its potential to contribute to cumulative impacts vary based on the environmental resource under consideration. The geographic scope of the analysis for cumulative mineral resource impacts encompasses and is limited to the Project area and the immediately adjacent areas. This is because impacts related to minerals are generally site-specific and depend on the nature and extent of the mineral resource.

The time frame during which the Project could contribute to cumulative effects on mineral resources is during its construction and operation and maintenance phases. For the Project, the operation and maintenance phase is considered permanent. Therefore, similar to the geographic limitations discussed above, it should be noted that impacts related to mineral resources are generally time-specific. The effects could be cumulative only if two or more projects would occur at the same time and overlap at the same location.

3.12.6.1 Criterion a)

As stated in Impact 3.12-1, the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state, and the Project is not expected to have any significant impact on the availability of a known mineral resource. As discussed in Impact 3.12-1, sections of the Project components located within MRZ-2, MRZ-3, or MRZ-4 lands are in locations where mineral extraction is unlikely to occur in the foreseeable future, regardless of the Project's construction or operation and maintenance activities. Therefore, the incremental impacts of the Project, combined with impacts of other projects in the cumulative scenario, would not be cumulatively considerable and there would be no cumulative impact.

Mitigation: None required.

3.12.6.2 Criterion b)

The Project would not be situated on any mineral resource recovery sites delineated in the Santa Clara County or city of San José general plans. As discussed in Impact 3.12-2, the Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Consequently, it is not expected to have any significant impacts on locally important mineral resource recovery sites. Therefore, the incremental impacts of the Project, combined with impacts of other projects in the cumulative scenario, would not be cumulatively considerable and there would be no cumulative impact.

Mitigation: None required.

3.12.7 References

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3.13 Noise and Vibration

This section evaluates the impacts of the Project related to noise and vibration. It includes information about the physical and regulatory setting and identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. The information and analysis presented are based in part on the noise and vibration analysis contained in LSPGC's Proponent's Environmental Assessment (PEA) and supplemental modeling prepared by Environmental Science Associates (ESA). See **Appendix E**, *Noise Appendix*.

The CPUC received scoping comments pertaining to noise from a Coyote Valley resident and the California Department of Transportation (Caltrans). The resident expressed concern regarding increased noise associated with the proposed Grove high-voltage direct current (HVDC) Terminal (Grove HVDC Terminal), and Caltrans suggested identifying mitigation for potentially significant impacts of construction noise. Copies of all scoping letters and notes from members of the public who commented at the scoping meeting are provided in **Appendix A**, *Scoping Report*.

3.13.1 Environmental Setting

3.13.1.1 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 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 120–140 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 consists not of a single frequency but of a broad band of frequencies varying in levels of magnitude (sound power).

When all audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequencies spanning 20–20,000 Hz. Therefore, the sound pressure level 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. Consequently, during assessments of potential noise impacts, sound is measured using an electronic filter that deemphasizes frequencies below 1,000 Hz and above 5,000 Hz in a manner that corresponds to the human ear's decreased sensitivity to low and high frequencies, and that instead focuses on mid-range frequencies. This method of frequency weighting, referred to as *A-weighting*, is expressed in units of A-weighted decibels (dBA). All sound pressure levels reported in this analysis are A-weighted.

Noise Exposure and Ambient 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, noise varies continuously with time relative to the contributing sound sources of the noise environment. Noise is primarily the product of many distant noise sources that together constitute a relatively stable background noise exposure, and the individual contributors are unidentifiable. Background noise levels change throughout a typical day, but they do so gradually as distant noise sources are added and subtracted and atmospheric conditions change. The addition of short-duration single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens) makes noise constantly variable throughout a given day.

These successive additions of sound to the noise environment cause the noise level to vary from instant to instant. Thus, to legitimately characterize a noise environment and evaluate noise impacts, noise exposure must be measured over a period of time. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The following noise descriptors are used in this analysis:

- The ***equivalent sound level (L_{eq})*** describes noise over a specified period of time in terms of a single numerical value. The L_{eq} is the sound level that would contain the same acoustic energy as the varying sound level during a period of time (i.e., the average noise exposure level for the given time period).
- The ***day-night average noise level (DNL or L_{dn})*** is the energy average of the A-weighted sound levels occurring during a 24-hour period, and accounts for most people's greater sensitivity to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to account for the greater annoyance caused by nighttime noises.
- The ***community noise equivalent level (CNEL)*** is a 24-hour L_{eq} that adds a 5 dBA penalty to noise occurring during the evening hours between 7:00 p.m. and 10:00 p.m., and a 10 dBA penalty to nighttime sounds occurring between 10:00 p.m. and 7:00 a.m. to account for the increased sensitivity to noise events that occur during these quiet periods.
- The ***instantaneous maximum noise level (L_{max})*** is the loudest noise level measured during a period of interest.

Effects of Noise on People

The effects of noise on people generally fall into three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction.
- Interference with activities such as speech, sleep, and learning.
- 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. Individual thresholds of annoyance vary widely, and different tolerances to noise tend to develop based on each individual's past experiences with noise. Thus, an important way to predict a human reaction to a new noise environment is the way the new noise compares to the existing noise level to which one has adapted, which is referred to as the *ambient noise level*. In general, the more a new noise exceeds the previous ambient noise level, the less acceptable the

new noise will be judged to be 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 between new noise and the existing ambient noise level 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 noise-level change of at least 5 dBA is required before any noticeable change in human response is expected.
- 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 contains marks that correspond to equal quantities of distance. One way of expressing this is to say that the ratio of successive intervals is equal to 1. A *logarithmic* scale is different in that the ratio of successive intervals is not equal to 1. 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 nonlinear 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. Instead, 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. However, where ambient noise levels are high in comparison to a new noise source, there would be a small change in noise levels. For example, if a 70 dBA ambient noise level were combined with a 60 dBA noise source, the resulting noise level would equal 70.4 dBA.

Nighttime noise has a higher potential to affect sleep. Noise can make it difficult to fall asleep, can momentarily disturb natural sleep patterns by causing shifts from deep to lighter stages, and can cause people sleeping to awaken.

Noise Attenuation

Sound level naturally decreases with greater 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 as a “line source.” Point sources of noise, 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, which are referred to collectively as *excess ground attenuation*.

The basic rate of geometric spreading loss is used where the ground surface between a noise source and a receiver is reflective, such as a parking lot 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 those on a street with moving vehicles (a "line" source), would typically attenuate at a lower rate, 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 levels that would otherwise occur at a given receptor distance. However, for a strip of vegetation to have a noticeable effect on noise levels, it must be dense and wide. For example, to attenuate traffic noise by 5 dBA, a stand of trees must be at least 100 feet wide and dense enough to completely obstruct a visual path to the roadway (Caltrans 2013). A row of structures can shield more distant receivers, depending on the size and spacing of the intervening structures and site geometry. Like 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 a source and receiver will provide at least a 5 dBA noise-level reduction.

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. Several different methods 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 on 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 (measured in vibration decibels [VdB]) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration (FTA 2018). Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration.

Some common sources of groundborne vibration are trains, heavy trucks traveling on rough roads, and construction activities such as blasting, pile driving, and operation of heavy earth-moving and compaction equipment. The effects of groundborne vibration include movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, vibration can damage buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. In residential areas, the background vibration velocity level is usually around 50 VdB (approximately 0.0013 in/sec PPV) (FTA 2018).

3.13.1.2 Existing Ambient Noise Environment

Skyline HVDC Terminal and PG&E San Jose B Substation

The proposed Skyline HVDC Terminal would be constructed surrounding land uses that include the existing PG&E San Jose B Substation to the north; State Route (SR) 87, which would

separate the terminal from multifamily residential units to the east; an existing rail line that would separate the terminal from commercial office space to the south; and the Guadalupe River Park and Trail and commercial retail development to the west. Existing noise sources in the area include vehicles on nearby roadways, aircraft overflights, and commercial operations. The Skyline to San Jose B 230-kilovolt (kV) alternating current (AC) overhead Transmission Tie Line (Skyline to San Jose B 230 kV Transmission Tie Line) structures would be located within the proposed Skyline HVDC Terminal site. The existing PG&E San Jose B Substation is immediately north of the site of the proposed Skyline HVDC Terminal and is surrounded by the same land uses as the proposed Skyline HVDC Terminal site.

Grove HVDC Terminal and PG&E Metcalf Substation

The proposed Grove HVDC Terminal would be constructed adjacent to office, industrial, and residential land uses to the northwest; Coyote Creek Parkway, U.S. Highway 101 (U.S. 101), and the PG&E Metcalf Substation to the northeast; a private lot consisting of disturbed land from an existing orchard and a residential structure to the southeast; and Monterey Road and agricultural uses to the southwest. Existing noise sources in the area include vehicles on nearby roadways and industrial operations. The Metcalf to Grove 500 kV AC underground Transmission Line (Metcalf to Grove 500 kV Transmission Line) would be installed mostly in Coyote Ranch Road, with a short section within the Coyote Creek Trail and Coyote Creek Parkway primarily surrounded by open space and industrial uses.

Adjoining the existing PG&E Metcalf Substation are land uses such as the Coyote Creek Trail and Monterey Road, which separate the substation from undeveloped and industrial land uses to the southwest; U.S. 101, which separates the site from undeveloped land to the east; Coyote Ranch to the southeast; and single-family residences to the northwest. Existing noise sources in the area include vehicles on nearby roadways and industrial operations.

Grove to Skyline 320 kV DC Transmission Line

The Grove to Skyline 320 kV direct current (DC) Transmission Line (Grove to Skyline 320 kV Transmission Line) would be installed along transit uses within Monterey Road, First Street, Market Street, Little Market Street, and Bassett Street. The underground line would be adjacent to residential, developed parks, open space, light and heavy industrial, the convention center, and commercial uses.

Ambient Noise Levels

To evaluate existing ambient noise in the Project area, LSPGC collected noise measurements near the PG&E San Jose B and Metcalf substations, the site of the proposed Grove HVDC terminal, and along the proposed Grove to Skyline 320 kV DC and Metcalf to Grove Transmission Lines (**Figure 3.13-1**, *Noise Monitoring Locations*). Ambient long-term (24-hour) and short-term (15-minute) noise measurement data were collected on September 21 and September 22, 2023, to characterize noise conditions in the vicinity of the Project sites and alignments (LSPGC 2024). **Table 3.13-1** and **Table 3.13-2** summarize noise-level data results for the long-term measurements collected near the proposed terminal sites and short-term monitoring locations along the proposed transmission line alignments. Primary known noise sources near the noise monitoring locations are

vehicle traffic along SR 87, U.S. 101, Monterey Road, and other local roadways, and commercial use activities.

TABLE 3.13-1
EXISTING NOISE LEVELS NEAR THE SITES OF THE PROPOSED HVDC TERMINALS

Location Number	Location Description	Noise Levels (dBA 1-hour L_{eq})		Average Daily Noise Level (dBA DNL)	Primary Noise Sources
		Daytime[1]	Nighttime[2]		
LT-1	East of the Skyline HVDC Terminal site, within the vacant land at the southwest corner of Bassett Street and Terraine Street, approximately 35 feet from the Terraine Street centerline and 125 feet from the Bassett Street centerline.	65–69	58–70	71	Traffic on SR 87 and local roadways. Aircraft overflights.
LT-3	West of the Grove HVDC Terminal site, adjacent to the property at 8194 Monterey Highway, approximately 135 feet from the Monterey Highway centerline.	58–67	51–63	65	Traffic on Monterey Highway.

NOTES:

dBA = A-weighted decibels; DNL = day-night noise level; HVDC = high-voltage direct current; L_{eq} = equivalent continuous sound level; LT = long-term; SR = State Route

1. Daytime noise levels = noise levels from 7:00 a.m. to 10:00 p.m.
2. Nighttime noise levels = noise levels from 10:00 p.m. to 7:00 a.m.

SOURCE: LSA 2023 (see Appendix E.1 of this DEIR). Noise data for LT-3 are based on hourly noise level results presented in Attachment B, *Noise Measurement Data Sheets*, of Appendix E to this DEIR.

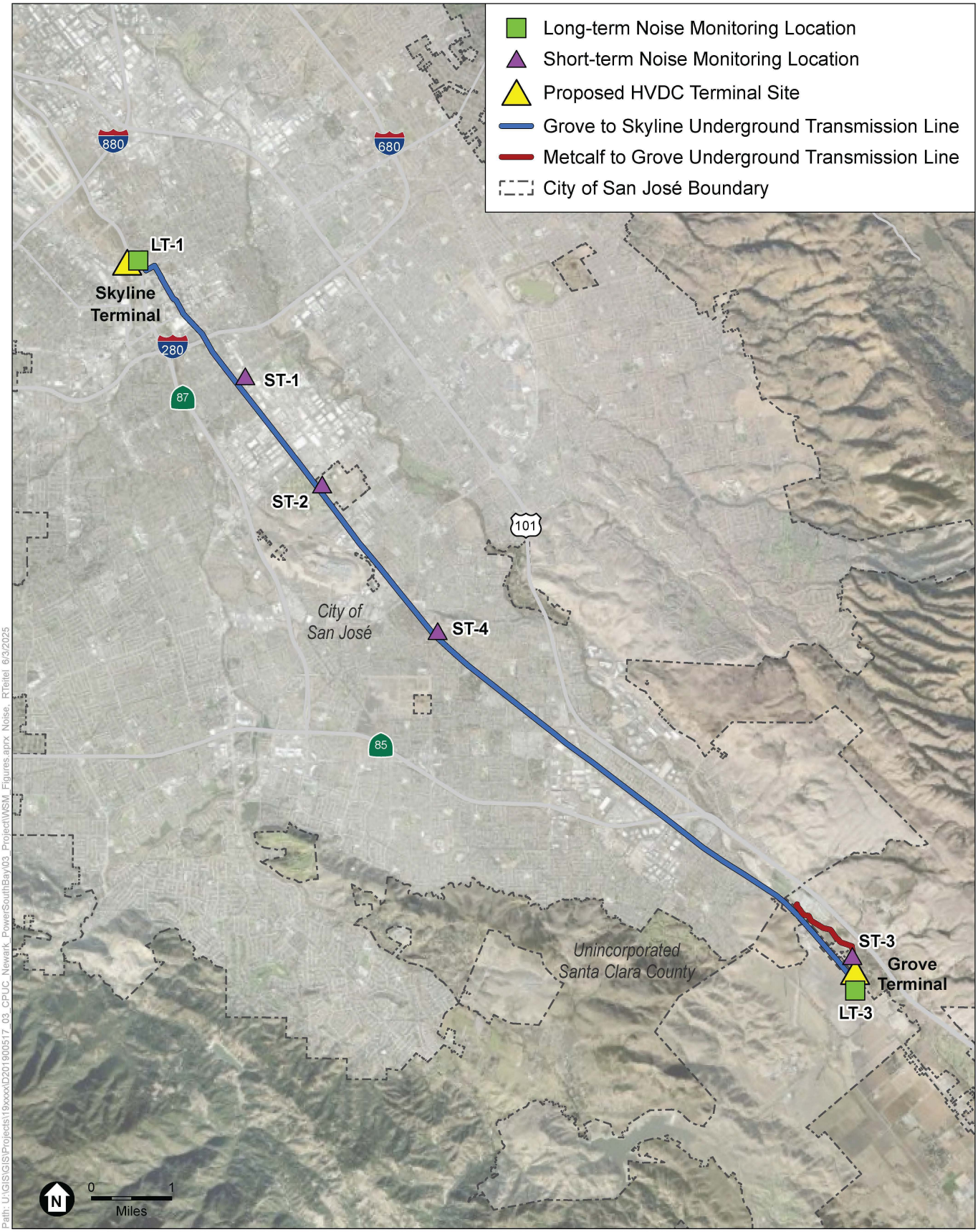
TABLE 3.13-2
EXISTING NOISE LEVELS ALONG THE PROPOSED TRANSMISSION LINE ALIGNMENTS

Location Number	Location Description	Date/Time	Average Noise Level (dBA L_{eq})	Primary Noise Sources
ST-1	At the end of the cul-de-sac at Humboldt Street, approximately 30 feet from the center of Humboldt Street.	9/21/2023, 2:21 p.m.–2:36 p.m.	57	Local traffic and nearby uses (auto repair power tools, trucks). Occasional aircraft overflights.
ST-2	Northwestern corner of the parking lot at the Santa Clara County Fairgrounds (2542 Monterey Highway), on a green pad, approximately 510 feet from the Monterey Highway centerline.	9/21/2023, 2:54 p.m.–3:09 p.m.	58	Traffic on Monterey Highway, occasional aircraft overflights.
ST-3	Southeast corner of the Coyote Ranch Road intersection, approximately 40 feet from the center of the intersection, and 400 feet from Coyote Ranch.	9/21/2023, 4:18 p.m.–4:33 p.m.	55	Background traffic on U.S. 101. Occasional aircraft overflights.
ST-4	Southwestern corner of the property at 4310 Monterey Highway, by the Monte del Rey Church entrance, approximately 75 feet from the Monterey Highway centerline.	9/22/2023, 4:56 p.m.–5:11 p.m.	75	Traffic on Monterey Highway. Occasional aircraft overflights.

NOTES:

dBA = A-weighted decibel(s); L_{eq} = equivalent continuous sound level; ST = short-term; U.S. 101 = U.S. Highway 101.

SOURCE: LSA 2023 (see Appendix E.1 of this DEIR)



SOURCE: ESA, 2024; LSA, 2024

Power Santa Clara Valley Project

Figure 3.13-1
Noise Monitoring Locations

Noise sources may also include aircraft operations at San José Mineta International Airport. The sites of the proposed Skyline HVDC Terminal and PG&E San Jose B Substation modifications lie approximately 1 mile south of San José Mineta International Airport, between the airport's current and future 65 to 70 dBA CNEL contours (SCCALUC 2024).

3.13.1.3 Sensitive Receptors

Human response to noise varies considerably from one individual to another. Noise can interfere with sleep, concentration, and communication and can cause stress and hearing loss. Given these effects, some land uses are more sensitive than others to ambient noise levels. In general, residences, schools, hotels, hospitals, and nursing homes are considered the most sensitive to noise. Places where people tend to pray, study, and/or contemplate, such as churches, libraries, and cemeteries, are also sensitive to noise. Commercial and industrial uses are considered the least noise sensitive. Noise-sensitive receptors are defined as residential land uses, hospitals, convalescent homes, schools, and churches (OPR 2017:136). The sensitive receptors near the Project sites and transmission lines are described below.

Noise-sensitive receptors near the site of the proposed Skyline HVDC Terminal are multifamily residential units approximately 200 feet to the east, across SR 87 on Coleman Avenue. Residential uses, hotels and other overnight accommodations, and libraries are located along the proposed Grove to Skyline 320 kV Transmission Line alignment on Market Street, First Street, and Monterey Road at distances as close as 25–50 feet. Residential uses exist approximately 50 feet to the west and 400 feet east of the site of the proposed Grove HVDC Terminal.

3.13.2 Regulatory Setting

3.13.2.1 Federal

U.S. Environmental Protection Agency

Although no federal noise regulations exist, the U.S. Environmental Protection Agency (USEPA) has published noise guidelines to protect public health and welfare. USEPA recommends a DNL of 55 dBA to protect the public from broadband environmental noise outdoors in residential areas, on farms, and in other outdoor areas where people spend widely varying amounts of time, and in other places where quiet is a basis for use (USEPA 1974).

Federal Transit Administration Criteria

The impact assessment procedures and criteria in the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) are intended for federally funded mass transit projects, but they are routinely used for projects reviewed by local jurisdictions that have not adopted their own vibration impact standards. FTA and the Federal Railroad Administration have published guidelines for assessing groundborne vibration impacts associated with rail projects, which have been applied by other jurisdictions to other types of projects. FTA's threshold of architectural damage for structures of conventional construction from groundborne vibration is 0.2 in/sec PPV or 94 VdB (dB units of 1 microinch per second). FTA's threshold for human annoyance at residential uses is 72 VdB for "Frequent Events," or more than 70 vibration events of the same kind per day.

FTA has adopted vibration criteria that are used to evaluate potential building damage impacts from construction activities. **Table 3.13-3**, *Construction Vibration Damage Criteria,* shows FTA's vibration damage criteria.

TABLE 3.13-3
CONSTRUCTION VIBRATION DAMAGE CRITERIA

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

NOTES: in/sec = inches per second; PPV = peak particle velocity.
SOURCE: FTA 2018.

In addition, FTA has adopted standards related to human annoyance for groundborne vibration impacts for the following three land use categories: Vibration Category 1, High Sensitivity; Vibration Category 2, Residential; and Vibration Category 3, Institutional. FTA defines these categories as follows:

- **Category 1:** Buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes.
- **Category 2:** All residential land uses and any buildings where people sleep, such as hotels and hospitals.
- **Category 3:** Institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

For conditions where there is an infrequent number of events per day, FTA has established standards of 65 VdB for Category 1 buildings, 80 VdB for Category 2 buildings, and 83 VdB for Category 3 buildings.[1] Under conditions where there is an occasional number of events per day, FTA has established standards of 65 VdB for Category 1 buildings, 75 VdB for Category 2 buildings, and 78 VdB for Category 3 buildings.[2] No standards have been adopted or recommended for commercial and office uses.

Occupational Safety and Health Act

Under the Occupational Safety and Health Act of 1970 (United States Code Title 29, Section 651 et seq.), the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) adopted regulations designed to protect workers against the effects of occupational noise exposure. These regulations (Code of Federal Regulations Title 29, Section 1910.95) identify limits on

[1] FTA defines "infrequent events" as fewer than 30 vibration events of the same kind per day (FTA 2018).
[2] FTA defines "occasional events" as between 30 and 70 vibration events of the same source per day (FTA 2018).

noise exposure levels as a function of the amount of time during which the worker is exposed (**Table 3.13-4**, *OSHA-Permissible Occupational Noise Exposure Standards*). The regulations further specify requirements for a hearing conservation program (Section 1910.95[c]), a monitoring program (Section 1910.95[d]), an audiometric testing program (Section 1910.95[g]), and hearing protection (Section 1910.95[i]). There are no federal laws governing community noise.

TABLE 3.13-4
OSHA-PERMISSIBLE OCCUPATIONAL NOISE EXPOSURE STANDARDS

Duration of Noise (hours/day)	A-Weighted Noise Level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25 or less	115

NOTE: dBA = A-weighted decibels; OSHA = U.S. Department of Labor, Occupational Safety and Health Administration
SOURCES: USEPA 1974; Code of Federal Regulations Title 29, Section 1910.95, Table G-16.

3.13.2.2 State

Noise Elements and Noise Exposure Regulations

Government Code Section 65302 encourages counties and cities to implement a noise element as part of their respective general plans. In addition, the California Governor's Office of Planning and Research (now known as the Governor's Office of Land Use and Climate Innovation) has developed guidelines for preparing noise elements of these general plans, which include recommendations for evaluating the compatibility of various land uses as a function of community noise exposure.

The California Occupational Safety and Health Administration has published the Occupational Noise Exposure Regulations (California Code of Regulations Title 9, Sections 5095–5099), which set limits on employee noise exposure.

3.13.2.3 Local

California Public Utilities Commission, General Order 131-D

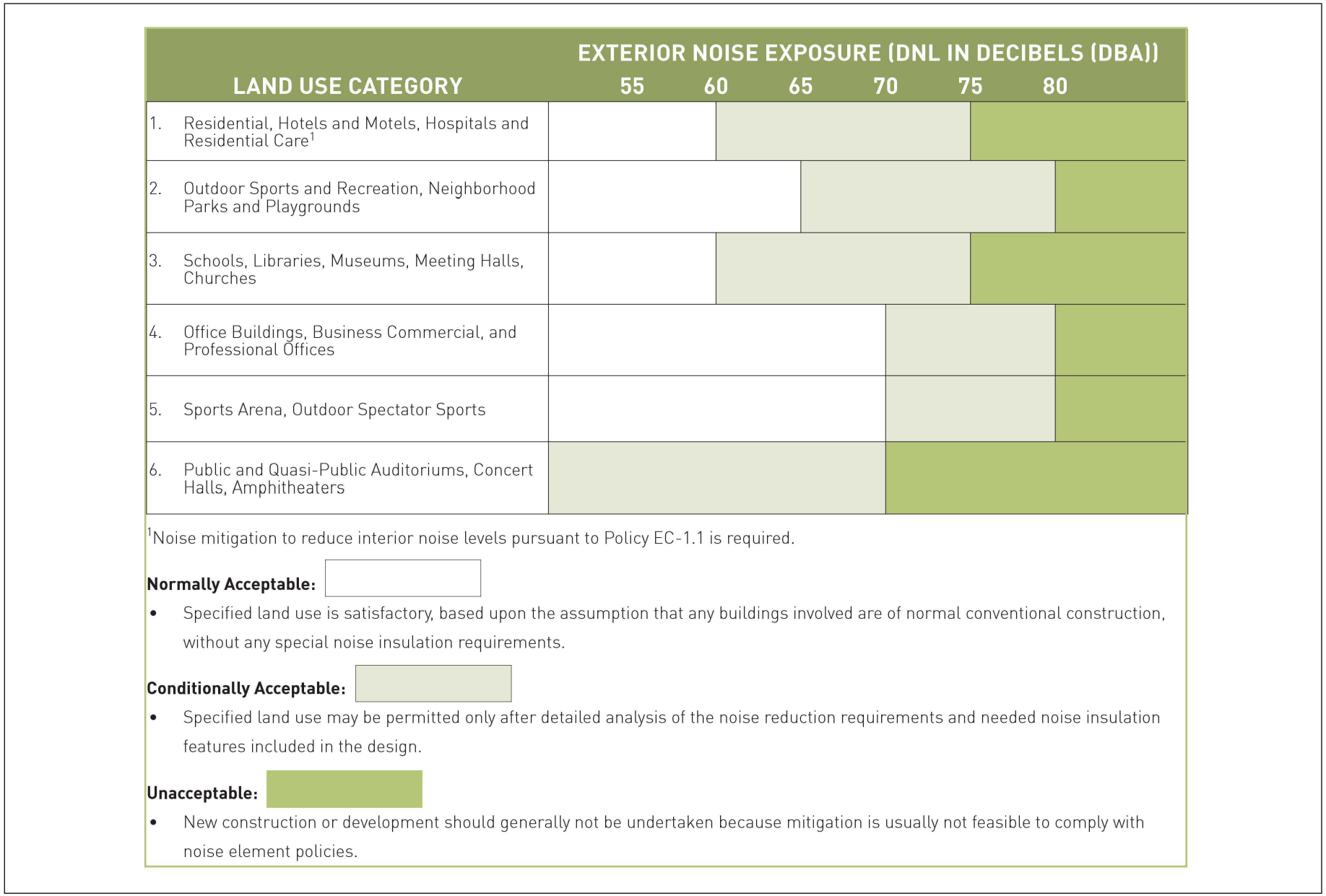
CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to noise that would otherwise be relevant to the Project and alternatives are described below.

City of San José

Envision San José 2040 General Plan

The *Envision San José 2040 General Plan* includes the following policies related to noise and vibration that would otherwise be relevant to the Project (City of San José 2024a):

> ***Policy EC-1.1*:** Locate new development in areas where noise levels are appropriate for the proposed uses. Consider federal, state and City noise standards and guidelines as a part of new development review. Applicable standards and guidelines for land uses in San José include:
>
> *Interior Noise Levels*: The City's standard for interior noise levels in residences, hotels, motels, residential care facilities, and hospitals is 45 dBA DNL. Include appropriate site and building design, building construction and noise attenuation techniques in new development to meet this standard. For sites with exterior noise levels of 60 dBA DNL or more, an acoustical analysis following protocols in the City-adopted California Building Code is required to demonstrate that development projects can meet this standard. The acoustical analysis shall base required noise attenuation techniques on expected 2040 General Plan traffic volumes to ensure land use compatibility and 2040 General Plan consistency over the life of this plan.
>
> *Exterior Noise Levels*: The City's acceptable exterior noise level objective is 60 dBA DNL or less for residential and most institutional land uses [see **Figure 3.13-2**, *Land Use Compatibility Guidelines for Community Noise in San José*]. The acceptable exterior noise level objective is established for the City, except in the environs of the Norman Y. Mineta San José International Airport, Downtown, and adjacent to elevated roadways. For the remaining areas of the City, the following standards apply:
>
> - For new multifamily residential projects and for the residential component of mixed-use development, use a standard of 60 dBA DNL in usable outdoor activity areas, excluding balconies and residential stoops and porches facing existing roadways. There will be common use areas available to all residents that meet the 60 dBA exterior standard. Use noise attenuation techniques such as shielding by buildings and structures for outdoor common use areas.
> - For single-family residential uses, use a standard of 60 dBA DNL for exterior noise in private usable outdoor activity areas, such as backyards.
>
> ***Policy EC-1.2*:** Minimize the noise impacts of new development on land uses sensitive to increased noise levels (Categories 1, 2, 3, and 6 [residential, hotel, hospital, and residential care uses, parks and playgrounds, schools, libraries, museums, meeting halls, houses of worship, auditoriums and similar facilities]) by limiting noise generation and by requiring use of noise attenuation measures such as acoustical enclosures and sound barriers, where feasible. The City considers significant noise impacts to occur if a project would:
>
> - Cause the DNL at noise sensitive receptors to increase by 5 dBA DNL or more where the noise levels would remain "Normally Acceptable" [i.e., 60 DNL at residential uses per Policy EC-1.1]; or
> - Cause the DNL at noise sensitive receptors to increase by 3 dBA DNL or more where noise levels would equal or exceed the "Normally Acceptable" level [i.e., 60 DNL at residential uses per Policy EC-1.1].



SOURCE: San José, Envision San Jose 2040 General Plan Update, 2018

Power Santa Clara Valley Project

Figure 3.13-2
Land Use Compatibility Guidelines for Community Noise in San Jose

***Policy EC-1.3*:** Mitigate noise generation of new nonresidential land uses to 55 dBA DNL at the property line when located adjacent to existing or planned noise sensitive residential and public/quasi-public land uses.

***Policy EC-1.6*:** Regulate the effects of operational noise from existing and new industrial and commercial development on adjacent uses through noise standards in the City's Municipal Code.

***Policy EC-1.7*:** Require construction operations within San José to use best available noise suppression devices and techniques and limit construction hours near residential uses per the City's Municipal Code. The City considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would involve substantial noise generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months. For such large or complex projects, a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints will be required to be in place prior to the start of construction and implemented during construction to reduce noise impacts on neighboring residents and other uses.

***Policy EC-2.3*:** Require new development to minimize continuous vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, including ruins and ancient monuments or building that are documented to be structurally weakened, a continuous vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to a building. A continuous vibration limit of 0.20 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction. Equipment or activities typical of generating continuous vibration include but are not limited to: excavation equipment; static compaction equipment; vibratory pile drivers; pile-extraction equipment; and vibratory compaction equipment. Avoid use of impact pile drivers within 125 feet of any buildings, and within 300 feet of historical buildings, or buildings in poor condition. On a project-specific basis, this distance of 300 feet may be reduced where warranted by a technical study by a qualified professional that verifies that there will be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction. Transient vibration impacts may exceed a vibration limit of 0.08 in/sec PPV only when and where warranted by a technical study by a qualified professional that verifies that there will be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction.

City of San José Municipal Code

City of San José Municipal Code Section 20.100.450 establishes noise exposure limits for stationary noise sources (non-transportation sources) and specifies hours for project construction. The Municipal Code restricts construction within 500 feet of a residential unit to 7 a.m. to 7 p.m. Monday through Friday, with no construction on weekends; however, overnight and weekend construction is permitted if expressly allowed in a development permit or other planning approval. The Municipal Code does not establish quantitative noise limits for demolition or construction activities occurring in the city.

Municipal Code Sections 20.20.300, 20.30.700, 20.40.600, and 20.50.300 establish performance standards for noise exposure associated with stationary/non-transportation sources at the property line of noise-sensitive uses. Specifically, noise exposure is limited to 55 dBA, 60 dBA, and 70 dBA at the property line of residential, commercial, and industrial receivers, respectively. Although the code is not explicit with respect to the acoustic descriptor assigned to these noise levels, it is a reasonable interpretation that these levels may be applied to the DNL based on Policy ES-1.3 of the General Plan.

County of Santa Clara General Plan: Book A

The following countywide strategies and policies from the *County of Santa Clara General Plan: Book A*, Resource Conservation, and Safety and Noise chapters, are relevant to the assessment of noise effects associated with the Project (Santa Clara County 1994a).

Safety and Noise

Strategy #1: Prevent or Minimize Noise Conflicts

***Policy C-HS 24*:** Environments for all residents of Santa Clara County free from noises that jeopardize their health and well-being should be provided through measures which promote noise and land use compatibility.

***Policy C-HS 25*:** Noise impacts from public and private projects should be mitigated.

C-HS(i) 23: Project design review should assess noise impacts on surrounding land uses. (Implementors: County and cities)

C-HS(i) 24: Where necessary, construct sound walls or other noise mitigations. (Implementors: County, cities, and public agencies.)

C-HS(i) 25: Prohibit construction in areas which exceed applicable interior and exterior standards, unless suitable mitigation measures can be implemented. (Implementors: County and cities)

C-HS(i) 26: Require project-specific noise studies to assess actual and protected dB noise contours for proposed land uses likely to generate significant noise. (Implementors: County and cities)

Strategy #2: Provide Adequate Sound Buffers

County of Santa Clara General Plan: Book B

The following rural unincorporated area strategy and policies from the *County of Santa Clara General Plan: Book B*, Resource Conservation, and Safety and Noise chapters, are relevant to the assessment of noise effects associated with the Project (Santa Clara County 1994b).

Safety and Noise

Strategy #1: Minimize Noise Conflicts

***Policy R-HS 2*:** The County should seek opportunities to minimize noise conflicts in the rural areas.

R-HS(i) 2: Where necessary, require appropriate noise mitigations. (Implementor: County)

R-HS(i) 4: Require project-specific noise studies to assess actual and projected dB noise contours for proposed land uses likely to generate significant noise. (Implementors: County)

County of Santa Clara Municipal Code—Chapter 16.60, Noise Control

The Santa Clara County Municipal Code includes noise regulations. Division B11, Chapter 8—Control of Noise and Vibration, details a noise policy that is meant to protect the peace and well-being of Santa Clara County residents from excessive and unnecessary noise (Santa Clara County 2003). **Table 3.13-5**, *Outdoor Noise Limits*, summarizes the maximum permissible noise levels for receiving land uses established by Section B11-152. Section B11-152 (3) provides allowances for when the existing ambient noise levels already exceed the standards. Specifically, if the measured ambient level exceeds the permissible limit within any of the noise limits, the allowable noise exposure standard is to be increased in 5 dB increments in each category as appropriate to encompass or reflect the ambient noise level.

TABLE 3.13-5
OUTDOOR NOISE LIMITS

Receiving Land Use Category	Time Period	Noise Level (dBA)
One- and Two-Family Residential	10 p.m.–7 a.m. 7 a.m.–10 p.m.	45 55
Multiple-Family Dwelling	10 p.m.–7 a.m.	50
Residential Public Space	7 a.m.–10 p.m.	55
Commercial	10 p.m.–7 a.m. 7 a.m.–10 p.m.	60 65
Light Industrial	Any Time	70
Heavy Industrial	Any Time	75

NOTE: dBA = A-weighted decibels
SOURCE: Santa Clara County 2003.

Section B11-154, Prohibited Acts, (b)(6) Construction/Demolition, specifically addresses noise from construction activities within the county, stating the following:

a. No operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekdays and Saturday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, that the sound therefrom creates a noise disturbance across a residential or commercial real property line, except for emergency work of public service utilities or by variance. This section will not apply to the use of domestic power tools as specified in Subsection 11.

b. Where technically and economically feasible, construction activities will be conducted in a manner that the maximum noise levels at affected properties will not exceed those listed in the following schedule:

    i. *Mobile equipment*. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than ten days) of mobile equipment [are shown in **Table 3.13-6**, *Mobile Construction Equipment Noise Limits*]:

TABLE 3.13-6
MOBILE CONSTRUCTION EQUIPMENT NOISE LIMITS

	Single- and Two-Family Dwelling Residential Area	Multifamily Dwelling Residential Area	Commercial Area
Daily, except Sundays and legal holidays, 7:00 a.m.–7:00 p.m.	75 dBA	80 dBA	85 dBA
Daily, 7:00 p.m. to 7:00 a.m., and all day Sundays and legal holidays	50 dBA	55 dBA	60 dBA

NOTE: dBA = A-weighted decibels
SOURCE: Santa Clara County 2003.

ii. *Stationary equipment.* Maximum noise levels for repetitively scheduled and relatively long-term operation (periods of ten days or more) of stationary equipment are as follows [in **Table 3.13-7**, *Stationary Construction Equipment Noise Limits*]:

TABLE 3.13-7
STATIONARY CONSTRUCTION EQUIPMENT NOISE LIMITS

	Single- and Two-Family Dwelling Residential Area	Multifamily Dwelling Residential Area	Commercial Area
Daily, except Sundays and legal holidays, 7:00 a.m.–7:00 p.m.	60 dBA	65 dBA	70 dBA
Daily, 7:00 p.m. to 7:00 a.m., and all day Sundays and legal holidays	50 dBA	55 dBA	60 dBA

NOTE: dBA = A-weighted decibels
SOURCE: Santa Clara County 2003.

CPUC interprets the noise-level limits for stationary construction equipment to be applicable to construction projects that would exclusively or primarily use such equipment types. Because construction of the Project would require the use of mostly mobile construction equipment, the County's stationary construction equipment noise-level limits would not be applicable to construction of the Project.

3.13.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility would be responsible for implementing its measures only for that part of the Project that it would own or for which it would be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the PG&E San Jose B Substation to a splice vault located at the PG&E Metcalf Substation. Specifically, at the northern end of the Project area, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the PG&E San Jose B Substation. At the southern end of the Project

area, LSPGC's scope would stop at a splice vault located at the western property line of the PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the portion of the Project involving modifications within the existing PG&E San Jose B and Metcalf substations. At the PG&E San Jose B Substation, PG&E would be responsible for the work starting from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E would be responsible for the work starting from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.13.3.1 Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measures (APMs) to reduce potential noise impacts. The analysis assumes that the following APMs would be implemented by LSPGC as part of the Project.

- **APM NOI-1: Vibration Monitoring for High Vibratory Equipment Contingency Plan.** Once the final design and alignment are determined for the proposed Grove to Skyline 320 kV DC transmission line, a site survey would be conducted along segments of the proposed transmission line alignment where construction may occur within 25 feet of existing structures to determine if any vibration sensitive structures are located within 25 feet of vibration-inducing construction activities. Vibration sensitive structures are those structures at least 50 years old, or generally constructed before approximately 1974. If construction with high vibratory equipment occurs within 25 feet of such structures, a Vibration Monitoring for High-vibratory Equipment Contingency Plan would be implemented. The Vibration Monitoring for High-vibratory Equipment Contingency Plan would be implemented to include the following, as necessary, to prevent vibration damage to vibration sensitive structures:
  - Identification of vibration-sensitive structures within 25 feet of the final transmission line alignment where high vibratory equipment is planned to be used.
  - Where such structures are identified, LS Power would attempt to use the following measures as necessary to avoid construction vibration impacts:
    - Place operating equipment on the construction site as far as feasible from vibration-sensitive receptors.
    - Use smaller equipment to minimize vibration levels below the limits.
    - Avoid using vibratory rollers and tampers near sensitive areas.
    - Select demolition methods not involving impact tools.
  - If the above reduction measures do not lower anticipated vibration levels below loaded truck levels or are not feasible, a technical vibration study would be prepared by a qualified professional who verifies that there would be virtually no risk of cosmetic or structural damage.
  - Based on the results of vibration study, identify where vibration monitoring would be conducted, establish a vibration monitoring schedule, define structure-specific vibration

limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions.

– Construction contingencies would be identified for when vibration levels approach the limits identified by vibration study. Construction contingencies may include procedures such as use of alternative construction equipment or construction phasing that would reduce potential damage to affected structures.

– Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person would be clearly posted at the construction site.

– The results of all vibration monitoring would be summarized and submitted in a report shortly after substantial completion of construction that occurs within 25 feet of vibration-sensitive structures. The report would include a description of measurement methods, equipment used, calibration certificates, and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits would be included together with documentation supporting any such claims.

3.13.3.2 PG&E Best Management Practices and Field Protocols

No PG&E best management practices or field protocols have been proposed to specifically reduce potential noise impacts.

3.13.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant noise impact if it would do any of the following:

a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

b) Generate excessive groundborne vibration or groundborne noise levels.

c) For a project located within the vicinity of a private airstrip or 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, expose people residing or working in the Project area to excessive noise levels.

3.13.5 Direct and Indirect Effects

3.13.5.1 Approach to Analysis

No local land use plans, policies, or regulations requiring discretionary approval would apply to the Project because the CPUC has sole and exclusive jurisdiction over the siting and design of such facilities pursuant to General Order 131-D. However, the approach to analysis references the local policies and municipal codes for informational purposes only to inform the analysis and address the impact criteria where relevant.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and

modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

Construction Noise Impacts

Noise from construction equipment and vehicle noise is the primary concern in evaluating short-term noise impacts. The analyses presented in this section are based in part on the noise and vibration analysis equipment assumptions identified in LSPGC's 2024 PEA. The PEA's noise estimates for equipment and vehicles used during Project construction activities were modeled using the sound propagation equations, but the equipment source levels used for the equations could not be verified. Therefore, ESA (on behalf of the CPUC) conducted supplemental noise modeling to support the analysis of construction noise impacts, using the Federal Highway Administration's Roadway Construction Noise Model for the construction activities identified in the PEA. ESA also used the Roadway Construction Noise Model to supplement LSPGC's noise analysis by calculating noise levels for trenchless pipeline installation methods based on typical noise estimates for a vibratory pile driver. Short-term construction noise levels have been evaluated relative to ambient noise levels and local standards of the applicable jurisdictions (the City of San José and Santa Clara County).

For construction activities within the San José city limits, Section 20.100.450 of the City of San José Municipal Code restricts construction within 500 feet of a residential unit to 7 a.m. to 7 p.m. Monday through Friday and prohibits construction on weekends. In addition, as stated in General Plan Policy EC-1.7, the city of San José considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would involve substantial noise-generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) that would continue for more than 12 months.

The City of San José Municipal Code and General Plan include no quantitative noise limits for what the City considers to be substantial construction noise. However, temporary construction-related noise generated in San José is considered by CPUC staff to be substantial if ambient noise levels would increase by 10 dBA L_{eq} or more at the nearest noise-sensitive land uses—which can subjectively be heard as approximately a doubling in loudness and can cause an adverse response—for a period of more than 12 months. For projects that would result in a significant construction noise impact under those criteria, Policy EC-1.7 requires the preparation of a construction noise logistics plan that specifies hours of construction, measures to minimize noise and vibration, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to the neighborhood.

Construction activities in unincorporated Santa Clara County are prohibited between 7:00 p.m. and 7:00 a.m. on weekdays and Saturdays and anytime on Sunday and holidays pursuant to County of Santa Clara Municipal Code Section B11-154, *Prohibited Acts*. For mobile construction equipment, the applicable daytime noise limits are 75 dBA near both single- and double-family dwelling residential areas and 80 dBA near multifamily dwelling residential areas; the applicable nighttime noise limits are 50 dBA near single- and double-family dwelling

residential areas and 55 dBA near multifamily dwelling residential areas. The daytime limits for stationary construction equipment are lower, but because typical construction activities would primarily involve the use of mobile equipment, this analysis uses the County's time-of-day restrictions on construction activity and its construction noise level limits for mobile construction equipment as significance thresholds to assess construction impacts in the unincorporated areas of Santa Clara County.

Operation and Maintenance Noise Impacts

In the long term, noise from the HVDC terminals and substation equipment and general operation and maintenance activities would be the primary noise concerns associated with the Project. Because overhead transmission lines are not proposed in residential or other noise-sensitive areas, corona noise from the proposed Skyline to San Jose B 230 kV Transmission Tie Line would not be a factor to consider for the Project. (*Corona noise* is a faint hum or crackle that can be heard in the vicinity of electric lines and is caused when energy escapes the conductor and interacts with moisture and dust in the atmosphere.)

In its PEA, LSPGC provided a noise estimate for operation of the proposed equipment at the HVDC Terminal sites. The estimates are based on an equation that converts sound power to sound pressure levels and includes a directivity factor. During technical review of LSPGC's PEA, the CPUC found the PEA's estimated noise level to be underestimates because the PEA used a directivity factor of 1 (for a full sphere) rather than 2 (half of a sphere) for the operation of ground-based equipment. Therefore, ESA conducted supplemental noise modeling for the proposed HVDC terminals to better represent ground-based equipment sources (see Appendix E.2).

The potential for long-term operational noise to substantially increase ambient noise levels was evaluated by comparing Project noise levels with measured ambient noise levels and the limits established by the local jurisdictions, as follows:

- The site of the proposed Grove HVDC Terminal is within the San José city limits and in unincorporated Santa Clara County; therefore, the estimated noise levels for the Grove HVDC Terminal site were evaluated relative to the limits established by both jurisdictions.
- For the area near the Grove HVDC Terminal site that is within unincorporated Santa Clara County, the applicable daytime and nighttime outdoor noise limits are 55 dBA and 45 dBA, respectively. However, because the daytime and nighttime ambient L_{eq} levels in the vicinity of the Grove HVDC Terminal site have been measured to be as low as 58 dBA and 51 dBA, respectively, the outdoor limits should be increased by increments of 5 dB as appropriate to encompass or reflect the ambient noise levels. Therefore, the Project's daytime and nighttime outdoor noise exposure limits for residences in unincorporated Santa Clara County are 60 dBA and 55 dBA, respectively.
- The site of the proposed Skyline HVDC Terminal is within the San José city limits, so it was evaluated relative to the city's noise limits.
- The ambient noise levels near the existing PG&E substations and the sites of the proposed HVDC terminals exceed the city's "normally acceptable" noise limit of 60 dBA DNL at residential uses (see Table 3.13-1 and Figure 3.13-2). Therefore, the city's threshold of an increase over ambient noise levels of 3 dBA DNL or more, identified in Policy EC-1.2, is relevant to this analysis pursuant to Policy EC-1.2.

Additional details regarding methodology are included in the individual impact analyses below.

Vibration Impacts

No historic structures are located within the vicinity of the Project construction site (see Section 3.5.4, *Cultural Resources Identified within the Project Area*, for further details). A review of the California Historical Resources Information System's search of the California Office of Historic Preservation's Built Environment Directory conducted for the Project suggests that there are no at-risk buildings (e.g., adobes or other structures that appear to be structurally weak) along the transmission line alignment and other Project sites that would be excessively vulnerable to damage caused by construction-related vibration. Therefore, consistent with Policy EC-2.3 of the City of San José General Plan and the FTA vibration standards identified in Section 3.13.2, the applicable vibration thresholds used in this analysis are 0.20 in/sec PPV for building damage and 75 VdB for human annoyance at residential land uses and any buildings where people sleep, such as hotels and hospitals.

3.13.5.2 Impact Assessment

Criterion a) Whether the Project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact 3.13-1: Project construction would generate a substantial temporary increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. (*Less than Significant with Mitigation*)

Construction Noise Time-of-Day Restrictions

No local land use plans, policies, or regulations requiring discretionary approval would apply to the Project because CPUC has sole and exclusive jurisdiction over the siting and design of such facilities pursuant to General Order 131-D. However, the local regulatory standards described above have exemptions for the type of work proposed for the Project. The city of San José and Santa Clara County identify allowable hours during the day for noise related to construction activities. These hours are summarized in **Table 3.13-8**, *Allowable Hours for Construction Noise in San José and Santa Clara County*.

TABLE 3.13-8
ALLOWABLE HOURS FOR CONSTRUCTION NOISE IN SAN JOSÉ AND SANTA CLARA COUNTY

Jurisdiction	Weekdays	Saturdays	Sundays	Federal Holidays
City of San José	7:00 a.m. and 7:00 p.m.	Construction not allowed	Construction not allowed	Not specified
Santa Clara County[c]	7:00 a.m. and 7:00 p.m.	7:00 a.m. and 7:00 p.m.	Construction not allowed	Construction not allowed

SOURCES: City of San José 2024b; Santa Clara County 2003.

As discussed in Section 2.9.4, *Construction Schedule*, construction activities would adhere to the allowable construction work hours listed in Table 3.13-8, or would follow the recommended provisions of a variance from the local jurisdictions if LSPGC determines that work would be necessary outside the allowed periods (e.g., to deliver an oversized load or to cause or respond to planned or unplanned outages during nighttime hours). Nighttime construction would be most likely to occur within commercial and industrial areas, not residential areas. All Project construction activity would be consistent with the time-of-day restrictions established by local ordinances, as discussed above. Although nighttime construction is not anticipated, it may be needed occasionally to meet Project milestones.

The Project would not conflict with applicable local noise policies or ordinances related to time-of-day restrictions for construction; however, potential nighttime construction activities in the vicinity of residential sensitive receptors could result in a substantial noise nuisance that would have a significant impact on those residences. Implementation of **LSPGC Mitigation Measure 3.13-1a: Nighttime Construction Noise Plan** would reduce the impact to a **less-than-significant** level.

Daytime Construction Equipment Noise Level Impacts

Construction activities would require a variety of heavy equipment types, such as dozers, excavators, dump trucks, loaders, and hydraulic cranes, that would generate varying levels of noise. On-site construction activities (i.e., within the proposed alignments, staging areas, HVDC terminals, and substations) would make noise both intermittently and continuously. Off-site construction noise sources would consist of passing trucks and other construction-related vehicles. Sources of intermittent construction noise would include transport of off-road equipment and supplies, loading operations, and grading and drilling activities. Continuous noise sources would include sustained idling of equipment and the operation of pumps and generators at constant rates.

For construction activities within the San José city limits, as stated in General Plan Policy EC-1.7, the City considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would involve substantial noise-generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) that would continue for more than 12 months. For a temporary construction-related noise impact within the San José city limits to be considered significant, construction noise levels would have to exceed ambient noise levels by 10 dBA L_{eq} or more at the nearest noise-sensitive land uses for more than 12 months.

Santa Clara County has separate county code standards to address noise from construction activities within unincorporated portions of the county. Specifically, Section B11-154, Prohibited Acts (b)(6), Construction/ Demolition, states that maximum noise levels for repetitively scheduled short-term operation of mobile equipment at single- and double-family dwelling residential areas may not exceed 75 dBA. This noise limit applies during daytime hours, between 7:00 a.m. and 7:00 p.m., except on Sundays and legal holidays.

Typical L_{max} noise levels from the types of equipment that would be used to construct the Project are listed in **Table 3.13-9**, *Typical Construction Equipment Noise Levels*. Noise from equipment and vehicles associated with the Project's construction activities were modeled using the sound propagation equations.

TABLE 3.13-9
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	L_{max} Noise Level (dBA) at 50 feet
Backhoe	78
Concrete Mixer	79
Pump Truck	81
Crane, Mobile	81
Dozer	82
Excavator	81
Generator/Welder	81
Grader	85
Manlift/Aerial Lift/Forklift	75
Loader	79
Paver	77
Roller	80
Scraper	84
Trencher	80
Drill Rig	79
Trucks (all types)	79-81
Vibratory Pile Driver	101

SOURCE: Data compiled by Environmental Science Associates in 2025, based on the Federal Highway Administration's Roadway Construction Noise Model output (Appendix E).

Transmission Line

Table 3.13-10, *Maximum Construction Noise Levels at Sensitive Receptors,* provides the estimated maximum construction noise levels at the closest sensitive receptors to the proposed Grove to Skyline 320 kV Transmission Line. The estimated noise levels were modeled based on the conservative assumption that several pieces of construction equipment would operate simultaneously for the duration of that activity at the closest receptor. Open trench construction of the proposed Grove to Skyline 320 kV Transmission Line would generate temporary noise levels at residential uses of up to 74 dBA, 80 dBA, and 88 dBA L_{eq} at the nearest sensitive receptors, respectively located 100 feet, 50 feet, and 20 feet from construction activities. These noise levels would exceed the ambient daytime noise level by 17 dBA, 23 dBA, and 31 dBA, respectively. However, duct bank installation for the proposed Grove to Skyline 320 kV Transmission Line would progress linearly, and would not be expected to expose any one sensitive receptor to those noise levels for more than 1 month.

In addition to the transmission line construction noise levels presented in Table 3.13-10, construction noise for driving of sheet piles during transmission line construction would occur for shoring of trenchless installation pits. Horizontal boring machines would also generate high noise levels. The nearest sensitive receptors to the proposed trenchless installation pits in within the San José city limits are the San José Marriott on South Market Street, 25–50 feet to the west, and the Markham Plaza Apartments, approximately 125 feet to the east. Shoring and potential boring

activities would generate temporary noise levels in the high 80 dBA to low 90 dBA L_{eq} range at these closest sensitive receptors. The nearest sensitive receptor to a proposed trenchless installation pit in unincorporated Santa Clara County is a residence west of the site of the proposed Grove HVDC Terminal, approximately 350 feet south of the proposed trenchless installation pit for the Metcalf to Grove 500 kV transmission line. Shoring and potential boring activities at this location would generate temporary noise levels of 77 dBA L_{eq} at this nearest sensitive receptor.

TABLE 3.13-10
MAXIMUM CONSTRUCTION NOISE LEVELS AT SENSITIVE RECEPTORS

Equipment Required	Equipment Noise Levels (L_{eq}, at 50 feet)	Phase Noise Level (L_{eq}, at 50 feet)	Phase Duration	Sensitive Receptor Distance (feet)	Daytime Ambient Noise at Receptor[1]	Noise Level at Nearest Receptor
	Grove to Skyline 320 kV Transmission Line Construction					
Hydraulic Crane	73	80	660 workdays (less than 20 workdays at any one receptor location)	100	57 dBA	74 L_{eq}
Loader	75			50		80 L_{eq}
Excavator	77			20		88 L_{eq}
	Grove HVDC Terminal Site Development (Preparation and Grading)					
Dozer	78	83	120 workdays	100	58 dBA	77 L_{eq}
Scraper	80					
Excavator	77					
	Grove Terminal Below-Grade Construction					
Dump Truck	73	82	150 workdays	100	58 dBA	76 L_{eq}
Excavator	77					
Loader/Tractor	80					
	Grove HVDC Terminal Above-Grade Construction					
Grader	81	84	450 workdays	100	58 dBA	78 L_{eq}
Loader	75					
Tractor	80					

NOTES:

dBA = A-weighted decibels; L_{eq} = equivalent continuous sound level

1. Daytime ambient noise levels at receptors represent the 15-minute L_{eq} measured at Location No. ST-1 or the minimum daytime 1-hour L_{eq} measured at Location No. LT-3.

SOURCES: Equipment mix based on LSPGC 2024; data compiled by Environmental Science Associates using the Federal Highway Administration's Roadway Construction Noise Model output (Appendix E)

Construction of the proposed Grove to Skyline transmission line would generate noise levels that would exceed the existing ambient noise levels at the closest sensitive receptors by more than 10 dBA L_{eq}; however, construction activities would affect a given sensitive receptor for less than 12 months and would not represent a substantial temporary increase in ambient noise pursuant to City of San José General Plan Policy EC-1.7. Therefore, the associated transmission line construction impact in the city of San José would be **less than significant**.

The closest residence to the proposed work areas for the Grove to Skyline and Metcalf to Grove transmission lines in unincorporated Santa Clara County is near the Santa Clara County Fairgrounds, located at a distance of about 175 feet. At this distance, the L_{eq} would be approximately 70 dBA, which is less than the noise limit for mobile construction equipment of 75 dBA as identified in Section B11-154 of the Santa Clara County Municipal Code. However, as discussed above, shoring activities at the trenchless installation pit near the Grove HVDC Terminal site would generate temporary noise levels of up to 77 dBA L_{eq} at the nearest sensitive receptor in unincorporated Santa Clara County. In addition, Section B11-154 of the municipal code includes a noise limit for mobile construction equipment of 85 dBA in commercial areas; there are several commercial uses southeast of Coyote Ranch Road in unincorporated Santa Clara County, immediately adjacent to the Grove to Skyline 500 kV Transmission Line alignment, that may be exposed to construction noise levels of 85 dBA.

Therefore, pursuant to Section B11-154 of the Santa Clara County Municipal Code, construction of the proposed Grove to Skyline 320 kV Transmission Line would result in a substantial temporary increase in ambient daytime noise levels at existing commercial uses. Similarly, construction of the Metcalf to Grove 500 kV Transmission Line would result in a substantial temporary increase in ambient daytime noise levels at the nearest residential use. Therefore, construction noise impacts would be potentially significant. Implementation of **LSPGC Mitigation Measure 3.13-1b: Construction Noise Reduction and Logistics Plan** would reduce the impact to a **less-than-significant** level.

HVDC Terminals and Substations

The sites of the proposed HVDC terminals and the existing PG&E San Jose B Substation are located near existing sensitive receptors. There are no sensitive receptors within 1,000 feet of the proposed construction area for the PG&E Metcalf Substation modifications. Because the nearest residential receptors are more than 1,000 feet from the PG&E Metcalf Substation, associated construction noise levels at those receptors would be attenuated to the point that they would not result in a substantial temporary increase in ambient noise levels. Therefore, the construction noise impact from the proposed modifications at the PG&E Metcalf Substation would be **less than significant**.

Table 3.13-10, above, provides the estimated maximum construction noise levels associated with various construction activities at the closest sensitive receptors to the site of the proposed Grove HVDC Terminal. There are two residential properties immediately adjacent to the west side of the Grove HVDC Terminal site: one within the San José city limits and one in unincorporated Santa Clara County. Therefore, noise levels associated with construction of the proposed Grove HVDC Terminal have been evaluated relative to both the City of San José and Santa Clara County construction noise level limits. The noise modeling conservatively assumed that several pieces of construction equipment used for construction of the proposed Grove HVDC Terminal (the Terminal closest to sensitive receptors) would operate simultaneously for the duration of that activity within the site.

As shown in Table 3.13-10, construction of the proposed Grove terminal would generate temporary noise levels of up to 78 dBA at the closest residences during the site development,

below-grade, and above-grade phases. These noise levels would exceed the lowest measured 1-hour L_{eq} daytime ambient noise levels by more than 10 dBA and would continue for more than 12 months. In addition, the noise levels would exceed 75 dBA. Therefore, pursuant to Policy EC-1.7 of the City of San José General Plan and Section B11-154 of the Santa Clara County Municipal Code, the construction impact associated with the proposed Grove HVDC Terminal site would be significant. Implementation of **LSPGC Mitigation Measure 3.13-1b: Construction Noise Reduction and Logistics Plan**, would reduce the impact to a **less-than-significant** level.

With regard to construction activities for the proposed Skyline HVDC Terminal and the PG&E San Jose B Substation upgrades, the closest sensitive receptors would be at a distance of at least 200 feet, where noise levels would attenuate to a range between 70 and 72 dBA. Ambient daytime L_{eq} noise levels near the site of the proposed Skyline HVDC Terminal were measured to be as low as 65 dBA. Therefore, although construction activities for the Skyline HVDC Terminal and PG&E San Jose B Substation upgrades would occur for a period of more than 12 months, construction noise levels would not exceed ambient levels by more than 10 dBA and the impact threshold identified in City of San José General Plan Policy EC-1.7; therefore, impacts would be **less than significant**.

Construction Vehicle Noise Level Impacts

Construction of the Project would require the use of on-road vehicles to deliver and haul materials to and from all Project component sites. Construction traffic would access the location of the proposed Skyline HVDC Terminal from Santa Teresa Street via Coleman Avenue, and construction traffic would access the Grove HVDC Terminal site from Monterey Road. The annual average daily traffic is approximately 19,370 along Coleman Avenue and approximately 6,430 for Monterey Road (City of San José 2024c). As indicated in Table 2-9, the maximum average daily truck trips for any single Project component phase would be 120 per day for the Grove to Skyline duct bank excavation. This would result in a localized contribution of approximately 12 trips per hour over a 10-hour workday.

Existing traffic levels in the more rural areas of the Project (e.g., along the Metcalf to Grove 500 kV Transmission Line alignment) are much lower, and Project-related trips on those roads could result in a perceptible increase in noise; however, there are no sensitive receptors in those areas that would be affected by increased traffic levels. The addition of the Project's haul and vendor trucks would have a minimal effect on traffic volumes along area roadways over existing noise levels and would not result in a perceptible increase in noise. Therefore, there would be no substantial increase in noise from construction traffic that would affect sensitive receptors, and this impact would be **less than significant**.

> **LSPGC Mitigation Measure 3.13-1a: Nighttime Construction Noise Plan.**
>
> LSPGC and/or its contractors shall develop and implement a nighttime construction noise plan specific to each occurrence of nighttime construction activities proposed to occur within 500 feet of residences. For the purposes of implementation of this measure, "nighttime" means between the hours of 7:00 p.m. and 7:00 a.m. Each plan shall describe the proposed nighttime construction activities in detail and explain why such activities cannot be conducted during daytime hours, and shall be submitted to the CPUC for review and approval at least 30 days before the start of the subject nighttime construction

activities. A plan shall not be required for emergency situations where stopping construction activities would result in hazardous conditions for workers or the public. Each plan shall include but not be limited to the following requirements for nighttime construction activities:

- The plan shall include documentation that a variance from the municipal code of the applicable local jurisdiction (i.e., the City of San José or Santa Clara County) has been received.
- Activities shall be planned to minimize the amount of nighttime construction.
- Impact tools (e.g., jackhammers, pavement breakers) and pile drivers shall be prohibited during nighttime hours.
- When nighttime construction activities take place within 200 feet of noise-sensitive receptors, portable construction noise barriers, such as paneled noise shields, barriers, enclosures, or sound curtains, shall be used adjacent to or around loud stationary equipment. 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.
- A notice shall be distributed by mail, personal visit, door hanger, or email to the potentially affected residences and other sensitive receptors within 200 feet of the nighttime construction activities, describing where and when nighttime construction activities will occur.

LSPGC Mitigation Measure 3.13-1b: Construction Noise Reduction and Logistics Plan.

LSPGC and/or its contractors shall develop a construction noise reduction and logistics plan for residences within 500 feet of the Grove HVDC Terminal site, for residences within 500 feet of trenchless installation pits in unincorporated Santa Clara County, and for unincorporated Santa Clara County commercial uses within 40 feet of transmission line construction activities. The plan shall be submitted to the CPUC for review and approval at least 60 days before the start of construction activities. The plan shall include but not be limited to the following measures for construction activities:

- A notice shall be distributed to the potentially affected residences and commercial uses described above. The notice shall list a “hotline” telephone number that shall be attended during active construction working hours, for use by the public to register complaints. The notice shall identify a noise disturbance coordinator responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints and institute actions warranted to correct the problem. All complaints shall be logged noting date, time, complainant’s name, nature of complaint, and any corrective action taken. The distribution shall also include the construction schedule.
- All construction equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof, to meet relevant noise limitations.
- Maximum physical separation, as far as practicable, shall be maintained between noise sources (construction equipment) and sensitive noise receptors. Separation may be achieved by locating stationary equipment to minimize noise impacts on the community.

- Impact tools (e.g., jackhammers, pavement breakers) used during construction activities shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used.
- The proposed perimeter wall at the Grove HVDC Terminal shall be installed as part of the first phase of construction activities at the terminal site.
- Construction noise barriers such as temporary soundwalls, acoustic blankets, or other barriers shall be used to shield construction noise generated (1) at the Grove HVDC Terminal site from residences west of the site that would be exposed to construction noise for 1 year or more from activities involving heavy equipment; (2) at the trenchless construction pit from residences off Monterey Road; and (3) by stationary sources such as compressors and generators along the Grove to Skyline 320 kV transmission line alignment from commercial uses within 40 feet of construction activities. Heights and specifications of noise barriers shall be designed to ensure that the line of sight is broken between the active construction equipment and the residence.

Significance after Mitigation: Implementation of LSPGC Mitigation Measures 3.13-1a and 3.13-1b would reduce impacts to **less than significant**.

Impact 3.13-2: Project operation would generate a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. (*Less than Significant with Mitigation*)

Transmission Lines

The proposed Grove to Skyline and Metcalf to Grove 500 kV Transmission Lines would be installed underground and therefore would not expose nearby sensitive receptors to corona discharge noise. (As mentioned previously, *corona discharge noise* is a faint hum or crackle that can be heard in the vicinity of electric lines and is caused when energy escapes the conductor and interacts with moisture and dust in the atmosphere.) Noise sources from operation and maintenance the proposed transmission lines would be limited to periodic routine inspections, maintenance, and repairs conducted by staff members and would not typically require the operation of heavy equipment. Therefore, operation and maintenance activities for the proposed transmission lines would not generate a substantial permanent increase in ambient noise levels and would result in a **less-than-significant** impact.

HVDC Terminals and PG&E Substations

The site of the proposed Skyline HVDC Terminal and the existing PG&E San Jose B Substation are within the San José city limits, the site of the proposed Grove HVDC Terminal is within the San José city limits and unincorporated Santa Clara County, and the existing PG&E Metcalf Substation is in unincorporated Santa Clara County. There are no sensitive receptors within 1,000 feet of the site of the proposed PG&E Metcalf Substation modifications; therefore, the operational noise impact associated with the proposed modifications at the PG&E Metcalf Substation would be **less than significant**.

Each of the two proposed HVDC terminals would include eight heating, ventilating, and air conditioning units; an outdoor cooling unit; four converter transformers (three to be energized simultaneously); and six converter reactors (see Appendix E.2). The converter transformer banks would account for the majority of noise generated by operation of each HVDC terminal's infrastructure. Transformer noise is caused in part by a phenomenon called *magnetostriction*, which causes the transformer to be magnetically excited and vibrate, producing a "humming" sound. **Table 3.13-11***, Operational Noise Levels for HVDC Terminal Noise Sources,* shows the operational sound power level from industry specification sheets preliminarily identified for each terminal noise source and the associated sound pressure level at 3 feet that would be associated with the Project.

TABLE 3.13-11
OPERATIONAL NOISE LEVELS FOR HVDC TERMINAL NOISE SOURCES

Name	Sound Power Level (dBA)	Sound Pressure Level at 1 Meter (3 feet) (dBA)
Converter Transformer	98	90
Reactors	90	82
Outdoor Cooling Unit	93	85
HVAC Units	84	76

NOTES:
dBA = A-weighted decibels; HVAC = heating, ventilation, and air conditioning; HVDC = high-voltage direct current; L_{eq} = equivalent continuous sound level.
SOURCE: Sound power levels obtained from LSPGC 2024. See Appendix E.1 for the sound pressure level calculations.

Table 3.13-12, *Operational Noise Levels at the Closest Sensitive Receptors to the Project Terminal Sites***,** shows the projected noise levels resulting from full operation of all proposed equipment for the Project's terminal sites at the closest sensitive receptor properties, which are single-family residences. Where the residence is within the San José city limits, the HVDC Terminal and ambient noise levels are presented as DNL for comparison to City of San José General Plan Policy EC-1.2 noise level standards. Where the residence is in unincorporated Santa Clara County, the HVDC Terminal noise is presented as L_{eq} and the ambient noise level is presented as the lowest recorded nighttime 1-hour L_{eq} for comparison to the County's noise level standards identified in Santa Clara County Municipal Code Chapter 16.60. Although 8-foot perimeter walls are proposed for both HVDC terminals, it is not clear whether the walls would be designed for noise control or would otherwise be of sufficient height to block the line of sight between the Terminal noise sources and the nearby residences; therefore, the estimated noise levels in Table 3.13-12 include no additional attenuation associated with the proposed perimeter walls.

Table 3.13-12 shows that the estimated noise level for operation of the Skyline HVDC Terminal would not result in noise levels that would exceed the city of San José's limit of a 3 dBA DNL increase over ambient levels that exceed 60 dBA DNL. Because the upgrade site within the existing PG&E San Jose B Substation is farther from the closest sensitive receptor than the proposed Skyline HVDC Terminal site, and because all new equipment would be located in enclosures emitting less noise than the existing substation, the estimated increased noise levels for

the Skyline HVDC Terminal also represent those associated with the proposed PG&E San Jose B Substation upgrade. Therefore, operation of the Skyline HVDC Terminal and the PG&E San Jose B Substation upgrade would not generate a substantial permanent increase in ambient noise levels; the associated impact would be **less than significant**.

TABLE 3.13-12
OPERATIONAL NOISE LEVELS AT THE CLOSEST SENSITIVE RECEPTORS TO THE PROJECT TERMINAL SITES

Sensitive Receptor Description/ Jurisdiction	Nearest Project Feature	Noise Level (dBA DNL or L_{eq})				Exceeds Standard ?
		Ambient DNL or Lowest 1-Hour (Nighttime)	Project Noise Level at Property Line	Combined (Ambient + Project)	City or County Standard (DNL/Nighttime L_{eq})	
Residence at 190 Ryland Street, San José	Skyline Terminal	71 dBA DNL	54 dBA DNL	71 dBA DNL	74 dBA DNL (increase ambient noise by 3 dBA DNL or more)	No
Residence at 8194 Monterey Road, San José	Grove Terminal	65 dBA DNL	65 dBA DNL	68 dBA DNL	68 dBA DNL (increase ambient noise by 3 dBA DNL or more)	Yes
Residence at 8470 Monterey Road, unincorporated Santa Clara County	Grove Terminal	51 dBA Lowest 1-hour L_{eq}	59 dBA 1-hour L_{eq}	60 dBA 1-hour L_{eq}	55 dBA (5 dBA increments over nighttime limit)	Yes

NOTES: dBA = A-weighted decibels; DNL = day-night average noise level; L_{eq} = equivalent continuous sound level
SOURCE: Data compiled by Environmental Science Associates in 2025

The estimated noise levels associated with operation of the Grove HVDC Terminal would result in noise levels that would exceed both the city of San José's limit of a 3 dBA DNL increase over ambient levels that exceed 60 dBA and Santa Clara County's nighttime limit of 55 L_{eq} adjusted up 10 dBA from 45 dBA to account for the elevated ambient nighttime noise. Therefore, operation of the proposed Grove HVDC Terminal could generate a substantial permanent increase in ambient noise levels, and the associated impact would be significant. Implementation of **LSPGC Mitigation Measure 3.13-2: Grove HVDC Terminal Noise Characterization and Reduction Plan** (see below) would reduce the impact to a **less-than-significant** level.

Routine operation and maintenance activities associated with the HVDC terminals and PG&E substation upgrades and modifications would generally be similar to existing operation and maintenance activities conducted by PG&E for the existing substations.

LSPGC Mitigation Measure 3.13-2: Grove HVDC Terminal Noise Characterization and Reduction Plan.

LSPGC shall retain an acoustical engineer/specialist to prepare a noise characterization and reduction report. The report shall identify ambient noise levels near the Grove HVDC Terminal site and include recommendations to help ensure that operational noise from the Grove HVDC Terminal does not result in an exceedance of any noise level standard in the city of San José or Santa Clara County general plan or municipal code, relative to

ambient noise levels. The noise characterization and reduction plan shall be submitted to the City, County, and the CPUC for review and approval. The submitted plan shall be accompanied by a cover letter from LSPGC that expresses a commitment to implementing all recommended noise controls identified in the plan. The ambient noise level survey shall be conducted before the start of construction at the site for a continuous period of no less than 5 days, and the plan shall characterize the day-night average noise level (DNL) and hourly equivalent sound level (L_{eq}) values for each 24-hour period of the noise survey.

The plan shall present the proposed Grove HVDC Terminal's operational noise levels at the closest residences. The noise levels shall be estimated using a three-dimensional sound propagation model for aggregate noise emissions from the Grove terminal's equipment noise sources. The modeling shall be based on sound power levels for each piece of terminal equipment, obtained from the final specification sheets issued by the equipment manufacturer(s). The modeling shall incorporate the proposed terminal equipment layout and all noise-attenuating features such as the perimeter wall. The report shall identify, and present a modeling analysis of, any additional specific noise control design features required to ensure that noise levels at nearby sensitive receptor properties are compatible with city of San José and Santa Clara County noise standards relative to measured ambient noise levels. Such additional measures may include but would not be limited to designing the western perimeter wall to block the line of sight between the nearby residences and major noise sources at the site, using noise shields and/or enclosures to attenuate noise from individual pieces of equipment, and reorienting equipment to maximum attenuation due to distance.

The plan shall include a requirement to conduct a noise level survey once the Grove HVDC Terminal becomes operational. The survey shall be conducted during peak use of the terminal to verify that noise levels are compatible with city of San José and/or Santa Clara County standards. If the standards are exceeded, then the acoustic engineer/analyst will recommend additional design features to ensure that the City and/or County noise-level standards are not exceeded and an additional noise level survey shall be conducted once the additional design features have been implemented.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.13-2 would reduce the operational noise impact at the proposed Grove HVDC Terminal site to **less than significant**.

Criterion b) Whether the Project would generate excessive groundborne vibration or groundborne noise levels.

Impact 3.13-3: Project construction would generate excessive groundborne vibration noise levels. (*Less than Significant with Mitigation*)

Project construction–related activities that could propagate groundborne vibration would consist primarily of the use of vibratory rollers for compacting, vibratory hammers for sheet piles, and drilling for horizontal directional drilling installations. During some portions of transmission line construction that would require trenchless construction pits (e.g., jack-and-boring, horizontal directional boring, and micro-tunneling), sheet pile driving for shoring of the pits would require a

vibratory hammer. **Table 3.13-3,** *Vibration Levels for Construction Equipment,* identifies typical vibration levels from various construction activities at 25 feet.

TABLE 3.13-13
VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

Construction Equipment	Vibration Metric	Reference Vibration Level (at 25 feet)
Vibratory Roller	in/sec (PPV)	0.21
Vibratory Roller	VdB	94
Backhoe Ram	in/sec (PPV)	0.09
Backhoe Ram	VdB	87
Bulldozer (large)	in/sec (PPV)	0.09
Bulldozer (large)	VdB	87
Bulldozer (small)	in/sec (PPV)	<0.01
Bulldozer (small)	VdB	58
Jackhammer	in/sec (PPV)	0.04
Jackhammer	VdB	79
Loaded Haul Truck	in/sec (PPV)	0.08
Loaded Haul Truck	VdB	86
Pile Driver (vibratory)	in/sec (PPV)	0.65
Pile Driver (vibratory)	VdB	104

NOTES: in/sec = inches per second; PPV = peak particle velocity; VdB = vibration decibels
SOURCES: FTA 2018; Caltrans 2020.

The nearest existing building to the proposed open trench construction activities for the proposed Grove to Skyline and Metcalf to Grove 500 kV Transmission Lines would be as close as 10 feet. The use of a loaded truck may be the most substantial contributor of vibration during open trench construction activities. A loaded truck typically generates vibration levels of 0.08 in/sec PPV at a distance of 25 feet (see Table 3.13-13 above), which is equivalent to approximately 86 VdB. At 10 feet, a loaded truck's vibration levels could be 0.30 in/sec PPV and 86 VdB. At this distance, vibration levels would exceed the building damage threshold (0.2 in/sec PPV) and FTA's 75 VdB criterion for infrequent (construction-related) events at residential receptors where people sleep. However, this level of vibration is the same as current vibration levels from trucks that frequently travel on the existing roads where the transmission line alignments would be located. Accordingly, Project impacts on nearby buildings from loaded trucks and other proposed construction equipment used for open trench activities during construction of the proposed transmission lines would be **less than significant**.

The highest vibration levels during Project construction would likely be generated by the use of a vibratory or impact pile driver to install sheet piles in support of trenchless construction installation pits for the proposed transmission lines. Horizontal boring activities could also generate vibration at levels similar to those of a vibratory or impact pile driver. According to the Caltrans *Transportation and Construction Vibration Manual*, both impact pile driving and vibratory pile driving typically generate vibration levels of 0.65 in/sec PPV at a distance of 25

feet (Caltrans 2020). The closest existing off-site building that would be exposed to Project pile driving or boring activities (or both) is the San José Marriott on South Market Street, approximately 25–50 feet from the southern trenchless construction pit proposed for the Grove to Skyline 320 kV Transmission Line. Trenchless construction for the Metcalf to Grove 500 kV Transmission Line would occur at a sufficient distance from the nearest structures to avoid vibration-related damage.

The San José Marriott would be exposed to a vibration level of 0.23 to 0.65 in/sec PPV, which is equivalent to 95–104 VdB. At this distance, vibration levels would exceed the building damage threshold (0.20 in/sec PPV), the human-annoyance threshold of 75 VdB for infrequent (construction-related) events at residential receptors where people sleep, and the expected ambient vibration levels if closer than 50 feet.

LSPGC APM NOI-1 would be implemented for the use of high vibratory equipment such as vibratory and/or impact pile drivers, vibratory rollers, and bulldozers. However, LSPGC APM NOI-1 is only applicable to vibration-inducing construction activities that would occur within 25 feet of existing structures; and as identified above, trenchless construction activities within 50 feet of structures would exceed the vibration level significance thresholds. In addition, City of San José General Plan Policy EC-2.3 discourages the use of impact pile drivers within 125 feet of any buildings. Therefore, the vibration impact from trenchless construction activities would be **potentially significant**. Implementation of LSPGC Mitigation Measure 3.13-3 is required to replace LSPGC APM NOI-1 and would reduce the significant construction vibration impact to a **less-than-significant** level.

Construction vibration associated with the proposed HVDC terminals and existing PG&E substations would occur at a greater distance than vibration from construction of the Grove to Skyline 320 kV Transmission Line. No existing structures that could be vulnerable to vibration are located in the immediate vicinity of proposed construction areas at those sites. Therefore, no damage or adverse human reaction related to groundborne vibration from construction activities would occur. Impacts during construction of the proposed HVDC terminals and existing PG&E substation modifications would be **less than significant**.

LSPGC Mitigation Measure 3.13-3: Vibration Monitoring for High Vibratory Equipment Contingency Plan.

LSPGC and/or its construction contractors shall conduct a site survey along segments of the proposed transmission line alignments where trenchless construction techniques may occur within 50 feet of existing structures. If construction with high vibratory equipment occurs within 50 feet of structures, a vibration monitoring for high-vibratory equipment contingency plan shall be implemented. The plan shall include the following measures, as necessary, to prevent vibration damage to vibration-sensitive structures:

- LSPGC shall identify vibration-sensitive structures within 50 feet of the final transmission line alignments where high vibratory equipment is planned to be used.
- Where such structures are identified, LSPGC shall implement the following measures as necessary to avoid construction vibration impacts:

  - Place operating equipment on the construction site as far as feasible from vibration-sensitive receptors.
  - Use smaller equipment to minimize vibration levels below the limits.
  - Avoid using vibratory rollers and tampers near sensitive areas.
  - Select construction methods that do not involve impact/vibratory tools (e.g., drilling) where feasible.

- If the above reduction measures do not lower anticipated vibration levels below loaded truck levels or are not feasible, a qualified professional shall prepare a technical vibration study that verifies that there would be no risk of cosmetic or structural damage.
- Based on the results of the vibration study, LSPGC shall identify where vibration monitoring is to be conducted; establish a vibration monitoring schedule; define structure-specific vibration limits; and address the need to conduct photo, elevation, and crack surveys to document before- and after-construction conditions.
- Construction contingencies shall be identified for when vibration levels approach the limits identified by the vibration study. Construction contingencies may include procedures such as the use of alternative construction equipment or construction phasing that would reduce potential damage to affected structures.
- LSPGC shall designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted at the construction site.
- The results of all vibration monitoring shall be summarized and submitted in a report shortly after substantial completion of trenchless construction that occurs within 50 feet of structures. The report shall describe measurement methods and equipment used and include calibration certificates and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits shall be included together with documentation supporting any such claims.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.13-3 would reduce impacts to **less than significant**.

Impact 3.13-4: Project operation would generate groundborne vibration noise levels. (*Less than Significant*)

The operation of transformers at the proposed HVDC terminals and at both the PG&E San Jose B Substation and PG&E Metcalf Substation could generate limited groundborne vibration. Project operation would not include the use of any large equipment that would introduce any new sources of perceivable groundborne vibration. In addition, The Project's operation and maintenance activities would not require the use of heavy equipment that would generate high vibration levels. Therefore, the Project would not generate ground vibration levels greater than the 0.2 in/sec or 75 VdB significance criteria. Thus, the Project's operational vibration impacts would be **less than significant**.

Mitigation: None required.

Criterion c) For a project located within the vicinity of a private airstrip or 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, whether the Project would expose people residing or working in the Project area to excessive noise levels.

Impact 3.13-5: The Project could expose people working in the Project area to excessive airport noise levels. (*Less than Significant*)

The sites of the proposed Skyline HVDC Terminal and the existing PG&E San Jose B Substation modifications are located approximately 1 mile south of San José Mineta International Airport and are between the current and future 65–70 dBA CNEL contours of the airport, according to the San José Mineta International Airport Land Use Compatibility Plan (SCCALUC 2024).

However, the Project would not involve the development of noise-sensitive land uses that would be exposed to excessive aircraft noise. Although Project construction workers would be exposed to periodic short-term aircraft overflight noise from this airport, the average construction activity noise levels to which the workers would be exposed would be far greater than the average overflight noise exposure. Therefore, the impact would be **less than significant**.

Mitigation: None required.

3.13.6 Cumulative Effects Analysis

This section evaluates the potential for the Project to cause or contribute to a significant cumulative impact with respect to the noise and vibration considerations evaluated below. The geographic scope of analysis for cumulative noise and vibration impacts encompasses sensitive receptors and cumulative projects within approximately 500 feet of the Project sites and alignments. This screening threshold distance was developed based on guidance provided in Policy EC-1.7 of the City of San José General Plan and in equations for noise attenuation (Caltrans 2013). Beyond 500 feet, the contributions of noise from other projects would be greatly attenuated through both distance and intervening structures and their contribution would likely be minimal. The temporal scope for cumulative noise impacts is the Project's construction and operation/maintenance phases. Section 3.0.3, *Approach to the Cumulative Impacts Analysis*, presents the list of reasonably foreseeable future projects in the Project vicinity that could contribute to cumulative noise and vibration impacts.

3.13.6.1 Criterion a)

Impact C.3.13-1: The Project's construction-related impact of generating a substantial temporary increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance would be cumulatively considerable. (*Less than Significant with Mitigation*)

Temporary daytime construction noise impacts would occur at sensitive receptors along the proposed transmission lines in the city of San José. Estimated construction noise levels would

exceed the existing ambient noise levels at the closest sensitive receptors in San José by more 10 dBA L_{eq}, but construction activities would affect a given sensitive receptor for less than 12 months; therefore, pursuant to Policy EC-1.7 in the City of San José General Plan, noise from construction of the proposed transmission line would not represent a substantial temporary increase in ambient noise. In addition, daytime construction noise impacts from the proposed Skyline HVDC Terminal and PG&E San Jose B Substation upgrades would occur in San José and would last for longer than 12 months; however, the associated noise increase would not exceed ambient noise levels by more than 10 dBA and the impact relative to City of San José General Plan Policy EC-1.7 would be less than significant (see Impact 3.13-1).

As shown in Section 3.0.3, *Approach to the Cumulative Impacts Analysis*, Tables 3.0-1a and 3.0-1b, *Cumulative Projects*, several cumulative projects within the San José city limits that are located near the proposed transmission lines, Skyline HVDC Terminal site, and PG&E San Jose B Substation upgrades could contribute to short-term cumulative noise impacts. However, the Project's noise impacts would not be cumulatively considerable because they either would last for less than 12 months or would not exceed ambient levels by more than 10 dBA. Therefore, cumulative daytime construction noise impacts from the proposed transmission line alignments, Skyline HVDC Terminal site, and PG&E San Jose B Substation upgrades within the San José city limits would not be cumulatively considerable and the cumulative impact would be less than significant.

In unincorporated Santa Clara County, temporary daytime construction impacts on residential and/or commercial receptors along the Project transmission lines and near the site of the proposed Grove HVDC Terminal would be less than significant with mitigation (see Impact 3.13-1). However, as shown in Section 3.0.3, Figures 3.0-1a and 3.0-1b, there are no cumulative projects in the vicinity of the transmission lines or the proposed Grove HVDC Terminal site within unincorporated Santa Clara County. Accordingly, no significant cumulative daytime noise impact would result from the cumulative scenario to which the Project's incremental daytime noise impact could contribute. There is one cumulative project in unincorporated Santa Clara County near the PG&E Metcalf Substation (i.e., No. 77: Vasona-Metcalf 230 kV Line Limiting Elements Removal) that could result in construction-related noise levels similar to those of the Project; however, there are no sensitive receptors in the area and construction of the cumulative project is expected to be complete before the start of Project construction. Therefore, there would be no cumulative impact to which the Project's incremental construction impact could contribute.

Potential nighttime construction activities for the Project near residential sensitive receptors could result in a substantial noise nuisance that would have a significant impact on those residences. The Project's nighttime construction noise impact would be reduced to less than significant with implementation of Mitigation Measure 3.13-1a (see Impact 3.13-1). Several cumulative projects identified in Section 3.0.3, Tables 3.0-1a and 3.1-1b, would be constructed within 500 feet of the Project and residences. These cumulative projects could require nighttime construction activities that would generate noise that could combine with nighttime construction noise from the Project to result in a cumulative impact at nearby residences.

Mitigation: Implement LSPGC Mitigation Measure 3.13-1a: Nighttime Construction Noise Plan.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.13-1a would reduce the Project's contribution to the cumulative impact to **less than significant**.

Impact C.3.13-2: The Project's operational impact of generating a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance would not be cumulatively considerable. (*Less than Significant*)

A Project noise impact would occur at nearby sensitive receptors from operations of the proposed Skyline Terminal and PG&E San Jose B Substation upgrade; however, the Project's noise impact would be less than significant because the operational noise levels would not exceed ambient levels at nearby sensitive receptors (see Impact 3.13-2). As shown in Section 3.0.3, Figure 3.0-1a, one cumulative project (i.e., No. 1: Westbank Terraine) near the proposed Skyline Terminal and PG&E San Jose B Substation upgrade site could result in operational noise levels that could combine with the Project's noise levels to result in a cumulative impact. However, because operational noise levels from the Skyline Terminal and PG&E San Jose B Substation upgrades would be less than ambient noise in the vicinity of the closest sensitive receptors, the Project's contribution to the cumulative impact would not be cumulatively considerable, and the cumulative impact would be less than significant.

Project noise impacts would also result from operation of the proposed Grove Terminal and the PG&E Metcalf Substation modification. The impact from Grove Terminal operation would be reduced to a less-than-significant level (see Impact 3.13-2). The impact from the PG&E Metcalf Substation modification would be less than significant because there are no sensitive receptors in that area that would be exposed to the Project's noise levels. As shown in Section 3.0.3, Figure 3.0-1b, there are no cumulative projects near the site of the proposed Grove Terminal and there is one cumulative project (i.e., No. 77: Vasona-Metcalf 230 kV Line Limiting Elements Removal) near the PG&E Metcalf Substation modification site that could affect ambient noise levels. Therefore, no significant cumulative operational noise impact would result from the cumulative scenario to which the Project's incremental Grove Terminal operational noise could contribute. Because there are no sensitive receptors in the area, the Project's contribution to any potential cumulative impacts associated with the Vasona-Metcalf 230 kV Line Limiting Elements Removal project would not be cumulatively considerable. The cumulative impact associated with the proposed Grove Terminal and PG&E Metcalf Substation modification would be **less than significant**.

Mitigation: None required.

3.13.6.2 Criterion b)

Impact C.3.13-3: The Project's construction and operation groundborne vibration impacts would not be cumulatively considerable. (*Less than Significant*)

Groundborne vibration attenuates with distance much more rapidly than airborne noise. Vibration impact analyses are based on instantaneous PPV levels, and worst-case groundborne vibration

levels from construction are generally determined by identifying whichever individual piece of equipment generates the highest vibration levels. Unlike the analysis for average noise levels, in which noise levels from multiple pieces of equipment can be combined to generate a maximum combined noise level, instantaneous PPV levels do not combine in this way. Nonetheless, as described previously for the Project's construction-related and operational vibration impacts (see Impacts 3.13-3 and 3.13-4), the vibration levels from Project construction could exceed the significance thresholds and would result in a less-than-significant impact with mitigation, and the vibration levels from Project operation would result in a less-than-significant impact.

Vibration from construction and operation of other cumulative projects would not combine to raise the maximum vibration level because simultaneous vibration peaks from separate construction sites would be substantially unlikely. For these reasons, the vibration impacts from cumulative projects located near the Project would be highly localized and would be unlikely to combine to further increase vibration levels. Therefore, the Project's groundborne vibration impacts would not be cumulatively considerable and the cumulative impact would be **less than significant**.

Mitigation: None required.

3.13.6.3 Criterion c)

Impact C.3.13-4: The Project's impact of exposing people working in the Project area to excessive airport noise levels would not be cumulatively considerable. (*Less than Significant*)

Project construction workers would be exposed to periodic short-term aircraft overflight noise associated with nearby airports, which would be considered a less-than-significant impact (see Impact 3.13-5). Although the workers who would construct the cumulative projects identified in Section 3.0.3, Figure 3.0-1b, could be exposed to similar impacts, the Project in combination with projects identified in the cumulative scenario would not generate a significant cumulative impact related to airport noise exposure. The Project would not be cumulatively considerable and the associated airport noise exposure cumulative impact would be **less than significant**.

Mitigation: None required.

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3.14 Population and Housing

This section evaluates the impacts of the Project related to population and housing. It presents information about the environmental and regulatory setting, and it identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. The population and housing study area was defined to include the Project sites and the nearest communities within reasonable commuting distance to the Project sites. **Figure 3.14-1**, *Population and Housing*, depicts the counties and incorporated cities within the study area.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the EIR. **Appendix A**, *Scoping Report*, includes all the comments received during the scoping period. The CPUC did not receive scoping comments pertaining to population and housing.

3.14.1 Environmental Setting

3.14.1.1 Population

The Project would be located within unincorporated areas of Santa Clara County and the city of San José. The majority of the Project and its associated transmission lines lie within the city of San José (i.e., proposed Skyline High-Voltage Direct Current (HVDC) Terminal, while southern portions of the Project, including portions of the proposed Grove HVDC Terminal, the proposed Grove to Skyline 320-kilovolt direct current underground transmission line (Grove to Skyline 320 kV Transmission Line), and the proposed Metcalf to Grove 500-kilovolt alternating current underground transmission line (Metcalf to Grove 500 kV Transmission Line) lie within unincorporated Santa Clara County (see Figure 3.11-1e for Project components and city/county boundaries). The study area also includes Alameda and San Mateo counties because those jurisdictions are closest to the Project sites and lie within a reasonable commute distance for Project workers[1] (EDD 2022). The 2024 population estimates for Alameda, San Mateo, and Santa Clara counties and the city of San José are provided in **Table 3.14-1**, *2024 Population Estimates in the Project Area*.

TABLE 3.14-1
2024 POPULATION ESTIMATES IN THE PROJECT STUDY AREA

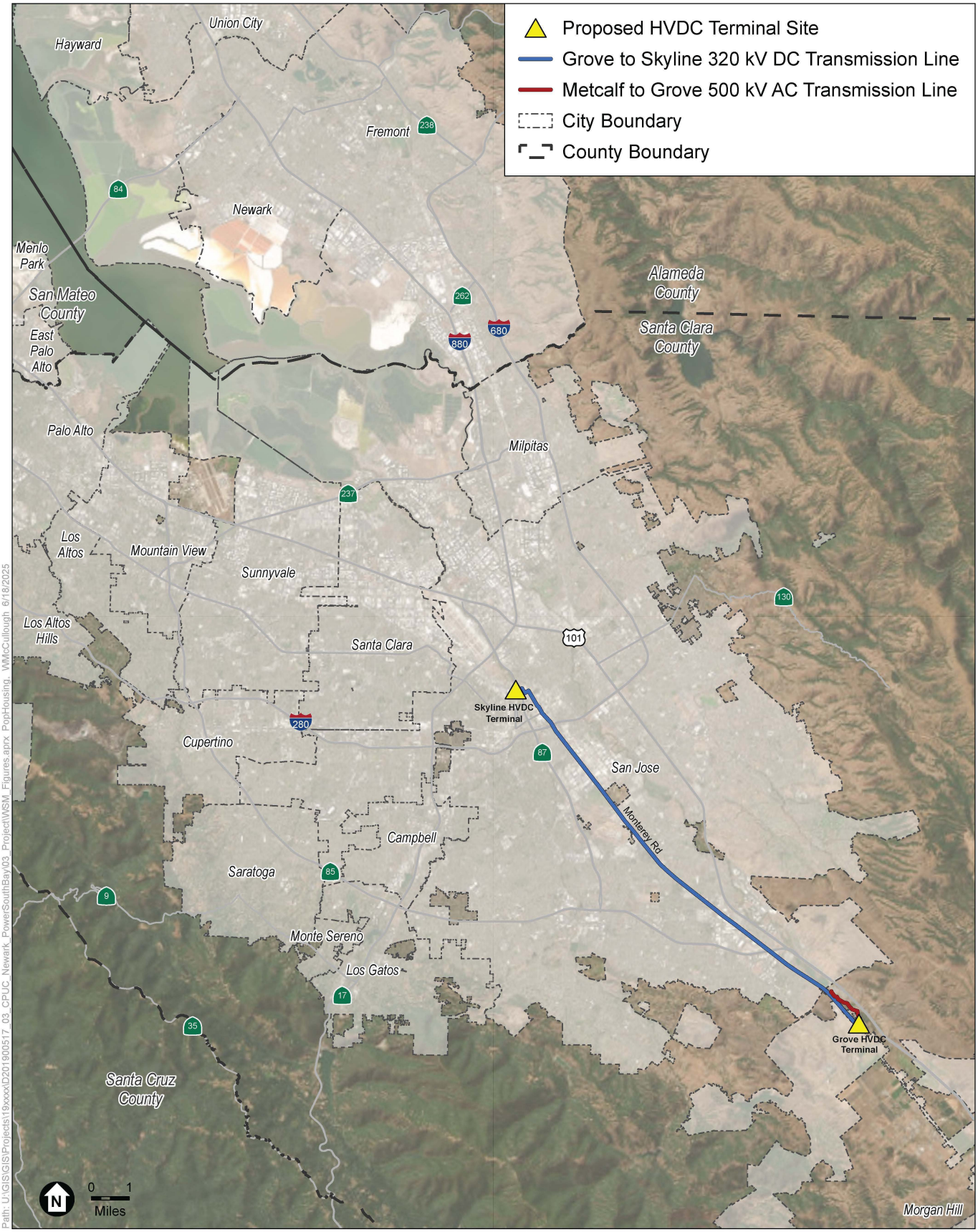
Population	Alameda County	San Mateo County	Santa Clara County	City of San José*
Total Population	1,641,869	741,565	1,903,196	969,491

NOTES: CDOF = California Department of Finance

* The data for Santa Clara County includes the city of San José.

SOURCE: CDOF 2024a

[1] Data used to determine this commuting distance was derived from the California Employment Development Department's Labor Market Information Division "Santa Clara County to County Commuting Estimates" map (2022), which is based on a 2019 special report of 2011-2015 County-to-County Commuting Flows developed by the U.S. Census Bureau.



SOURCE: ESA, 2024; ESRI, 2024

Power Santa Clara Valley Project

Figure 3.14-1
Population and Housing

Table 3.14-2, *Historic and Projected Population Growth in the Project Area from 2010–2035*, summarizes historic and projected population growth from 2010–2035 for Alameda, San Mateo, and Santa Clara counties and the city of San José. As demonstrated in the table, Alameda, San Mateo, and Santa Clara counties have experienced steady growth over the past decade. The population in Alameda and Santa Clara counties is expected to continue to increase over the next decade while the population in San Mateo County is expected to slightly decline over the next decade (CDOF 2022, 2024a, 2024b). The city of San José also experienced steady growth over the past decade and is expected to continue to increase over the next decade (ABAG 2017).

TABLE 3.14-2
HISTORIC AND PROJECTED POPULATION GROWTH IN THE PROJECT AREA FROM 2010–2035

Jurisdiction	2010 Population	2020 Population	% Change 2010–2020	Projected 2035 Population	Projected % Change 2020–2035
Alameda County	1,510,271	1,682,353	11.4	1,733,693	3.1
San Mateo County	718,451	764,442	6.4	758,357	-0.8
Santa Clara County	1,781,642	1,936,259	8.7	1,970,997	1.8
City of San José*	945,942	1,012,452	7.0	1,283,360	26.8

NOTES: ABAG = Association of Bay Area Governments; CDOF = California Department of Finance

* The data for Santa Clara County includes the city of San José.

SOURCE: ABAG 2017; CDOF 2022, 2024a, 2024b

3.14.1.2 Labor Force and Local Unemployment Rates

As of December 2023, the labor force for construction personnel in Alameda County was 47,600 workers, according to the California Employment Development Department. In that same region, the labor force for trade, transportation, and utilities was 140,700 people, for financial activities was 27,500, and for manufacturing was 96,800 people (EDD 2025). In Santa Clara County, the labor force for construction personnel was 57,000 people as of December 2023 (EDD 2025). Additionally, the labor force for trade, transportation, and utilities was 121,700 people, for financial activities was 37,700, and for manufacturing was 175,500 people (EDD 2025). As of November 2024, the labor force for construction personnel in San Mateo County was 38,900 people (EDD 2024a). The labor force for trade, transportation, and utilities for that region was 136,400 people, for financial activities was 82,000, and for manufacturing was 33,800 people (EDD 2024a). In November 2024, the unemployment rates for Alameda, San Mateo, and Santa Clara counties were 4.7 percent, 3.5 percent, and 4.0 percent, respectively, which are lower than the state unemployment rate of 5.3 percent (EDD 2024b, 2024c).

3.14.1.3 Housing

According to the California Department of Finance, at the beginning of 2024, Santa Clara County had an estimated 705,646 total housing units with a vacancy rate of approximately 4.7 percent. The city of San José had an estimated 347,148 total housing units with a vacancy rate of approximately 4.0 percent (CDOF 2024c). In addition to vacant housing units, there are numerous hotels and short-term rentals available in the study area for temporary accommodation. Although the exact number of hotels in San José varies by source, a study conducted by Urban Catalyst, a

premier real estate firm, states that the San José metropolitan area's hotel room supply increased by 3 percent between October 2022 and October 2023, reaching 14.5 million room-nights annually (Urban Catalyst 2023). 2024 Housing data estimates for Alameda, San Mateo, and Santa Clara counties and for the city of San José are provided in **Table 3.14-3**, *2024 Housing Data Estimates in the Project Area.*

TABLE 3.14-3
2024 HOUSING DATA ESTIMATES IN THE PROJECT STUDY AREA

Jurisdiction	Total Housing Units	Occupied Housing Units	Vacant Housing Units	Vacancy Rate (percent)
Alameda County	647,509	615,624	31,885	4.9%
San Mateo County	289,782	275,198	14,584	5.0%
Santa Clara County	705,646	672,611	33,035	4.7%
City of San José*	347,148	333,412	13,736	4.0%

NOTES: CDOF = California Department of Finance

* The data for Santa Clara County includes the city of San José.

SOURCE: CDOF 2024c

3.14.2 Regulatory Setting

3.14.2.1 Federal

No federal statutes, regulations, plans, or policies governing population and housing-related considerations apply to the Project.

3.14.2.2 State

The California Department of Housing and Community Development is required to allocate the region's share of statewide housing needs to local councils of government, based on state department of finance population projections and regional population forecasts. The Association of Bay Area Governments (ABAG) serves as the designated Metropolitan Planning Organization and Regional Transportation Planning Agency for the Bay Area's nine counties, including Alameda, San Mateo, and Santa Clara. Although ABAG does not have a direct regulatory role, it conducts regular planning efforts to meet its planning obligations, implement state regulations, and support its member agencies. ABAG, acting in its capacity as a state-designated regional planning agency, prepares a Regional Housing Needs Allocation (RHNA) Plan during each (8.5-year) housing element cycle. The RHNA Plan is a key tool for ABAG and its member agencies to prepare for population and housing growth (ABAG 2022). The RHNA Plan assesses the region's future housing needs and defines the housing need allocation for each member agency. The most recently published (Sixth Cycle) RHNA Plan covers the period from 2023–2031. The RHNA Plan projects that the population in Alameda and Santa Clara counties will continue to increase over this timeframe, while the population in San Mateo County will decline. To meet the projected near-term housing needs, ABAG determined that 441,176 housing units must be constructed by 2031, with roughly 41 percent of those units designated as affordable for lower-income households,

17 percent for moderate-income households, and 43 percent for above-moderate income households (ABAG 2022).

3.14.2.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. 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 Project and alternatives are described below.

City of San José

The city of San José *Envision San José 2040 General Plan* (City of San José 2024) includes the following goals related to population and housing that are relevant to the Project:

> **Goal H-1: Housing – Social Equity and Diversity.** Provide housing throughout our city in a range of residential densities, especially at higher densities, and product types, including rental and for-sale housing, to address the needs of an economically, demographically, and culturally diverse population.
>
> **Goal H-2: Affordable Housing.** Preserve and improve San José's existing affordable housing stock and increase its supply such that 15% or more of the new housing stock developed is affordable to low, very low and extremely low income households. Nothing in this language is intended, directly or indirectly, to impose any requirement on any individual housing project to include an amount or percentage of affordable units. Nothing in this language is intended to, directly or indirectly, result in a finding or determination that an individual housing project is inconsistent with the General Plan, if it does not contain any affordable housing units.
>
> **Goal H-3: Housing – High Quality Housing and Great Places.** Create and maintain safe and high quality housing that contributes to the creation of great neighborhoods and great places.
>
> **Goal H-4: Housing – Environmental Stability.** Provide housing that minimizes the consumption of natural resources and advances our city's fiscal, climate change, and environmental goals.

Santa Clara County General Plan

The Santa Clara County General Plan (Santa Clara County 1994) includes the following policy related to population and housing that is relevant to the Project:

> ***Policy C-EC 5*:** Barriers such as inadequate housing, transportation and childcare facilities which prevent individuals from obtaining employment should be reduced or eliminated.

Santa Clara County's *Housing Element* is currently being updated for the sixth cycle, which encompasses the 2023–2031 planning period. The updated fourth draft of the *Housing Element* (Santa Clara County 2024) includes the following policies related to population and housing that are relevant to the Project:

***Policy HG5-2*:** Fair housing services shall be available in all parts of the County.

***Policy HG7-2*:** Expand supportive housing programs, including permanent supportive housing and rapid rehousing programs.

3.14.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed by LSPGC and PG&E to reduce Project impacts. Each utility company will be responsible for implementing its respective measures for its portion of the Project.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Chapter 2, Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.14.3.1 Applicant-Proposed Measures

No Applicant-proposed measures have been proposed by LSPGC to address potential effects on population and housing resources.

3.14.3.2 PG&E Best Management Practices and Field Protocols

No PG&E best management practices or field protocols have been proposed to specifically reduce potential impacts on population or housing.

3.14.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant population and housing impact if it would do any of the following:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

3.14.5 Direct and Indirect Effects

3.14.5.1 Approach to Analysis

This section discusses the potential impacts on population and housing in accordance with Appendix G of the CEQA Guidelines. The Project would be regulated by the various laws, regulations, and policies as described in Section 2.13, *Anticipated Permits and Approvals*, and the applicable regulations related to population and housing, as described in Section 3.14.2, *Regulatory Setting*.

3.14.5.2 Impact Assessment

Criterion a) Whether the Project would induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Impact 3.14-1: The Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). (*Less than Significant*)

Construction

A project could have a direct impact on population and housing resources if it were to directly or indirectly increase the number of new residents in an area that had not previously planned for them. Throughout the Project's 27-month construction period, there would be up to 250 construction workers on-site, but the average number of construction workers would be lower. These construction personnel would likely commute from the greater Bay Area (see Section 2.9.1, *Construction Workforce*). The Applicant, LSPGC, expects to use its existing employees, hire local construction specialists and electrical contractors, or hire construction specialists and electrical contractors who would temporarily reside in the area. This strategy could result in a minimal or temporary need for accommodation during construction, such as workers engaging in "weekly commuting" (staying in the local area during the work week and returning home on weekends). Any short-term lodging demand created during construction could be accommodated by existing temporary housing units, as mentioned in Section 3.14.1.3, *Housing*.

Should workers traveling from outside the study area need housing accommodations during Project construction and choose to temporarily relocate, lodging demands necessary to support the workforce could be accommodated by existing vacant housing units. Santa Clara County has a housing vacancy rate of 4.7 percent, which is approximately 33,035 vacant homes. The city of San José has a vacancy rate of 4.0 percent with approximately 13,736 vacant homes. Should construction workers prefer to stay near the Project area, existing housing can accommodate the temporary influx of construction employees (up to 250 workers at peak activity). Additionally, existing businesses and services can absorb the temporary increase in population due to the Project's location in an urbanized area with adequate amenities to serve construction personnel. Therefore, the potential short-term population growth that could be caused by the Project's construction phase would have a **less-than-significant** impact.

Operation and Maintenance

The Project would not create any new permanent jobs, as it would be remotely operated with no on-site permanent workforce (see Section 2.11.4, *Operation and Maintenance Programs*). Furthermore, it would not include the development of new homes or businesses, so it would not directly induce permanent population growth in the Project area once operational. Therefore, there would be no direct population growth impacts associated with the Project.

The Project could have an indirect impact on population growth if it would generate growth or a concentration of people beyond what is assumed in local and regional land use plans or projections made by regional planning authorities. Adding infrastructure to an area can result in the unplanned indirect growth of population and housing. With a more reliable California Independent System Operator-controlled grid, the Project could potentially result in regional growth that exceeds local and regional land use plan predictions. However, it is uncommon for an area to experience population growth simply as a result of a more reliable electrical grid. The Project is designed to increase reliability and accommodate existing and planned electrical load, rather than to induce unplanned growth (see Section 2.2, *Project Objectives*). For these reasons, indirect operational impacts associated with population growth would be **less than significant**.

Mitigation: None required.

Criterion b) Whether the Project would displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Project construction and operation and maintenance would not displace any residential housing units or displace people or any other structures occupied by people. The Project, including the proposed HVDC Terminals, transmission lines, and upgrades to substations, would not involve the displacement of existing population or housing. As discussed, the Project would not directly or indirectly increase the need for housing. Therefore, the Project would have no impact associated with the displacement of people or the construction of replacement housing.

Mitigation: None required.

3.14.6 Cumulative Effects Analysis

3.14.6.1 Criterion a)

Impact C.3.14-1: The Project would not cumulatively induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). (*Less than Significant*)

As discussed in Impact 3.14-2, throughout the Project's 27-month construction period, there would be up to 250 construction workers at peak activity, though the average number of construction workers would be lower. Compared to the housing vacancy rates in Santa Clara County and the city of San José, which range from 4.0 to 4.7 percent, it is anticipated that the Project's impacts related to short-term population growth would be less than significant, as discussed above.

Further, Project operation and maintenance would not include the development of new homes or businesses and, thus, is not anticipated to result in direct population growth impacts nor would it directly induce permanent population growth in the Project area once operational. It is not typical for an area to experience population growth solely because of a more reliable electrical grid, as other factors such as water supply and socioeconomic factors are more closely tried to population growth; therefore, the Project is not expected to indirectly impact population growth. For these reasons, the Project would have a less-than-significant impact related to unplanned population growth in an area either directly or indirectly.

Table 3.0-1 presents several current and future residential developments that would occur in the Project's vicinity, including, but not limited to, Westbank Terraine, Tamien Residential, and Blossom Hill Signature. While these cumulative projects, including the Project, could directly or indirectly result in population growth in the area, the projects would have to undergo consistency reviews with applicable local jurisdictions (e.g., local planning department) to ensure they are consistent with local plans (e.g., general plans) that relate to population and housing. Thus, if the Project and other projects in the cumulative scenario were approved, it is expected that future residential development projects would have received consistency approval from applicable local jurisdictions, and therefore, impacts related to population growth would be planned. For these reasons, the Project, in combination with the cumulative projects in Table 3.0-1, would not induce substantial population growth in an area, either directly or indirectly, and this cumulative impact would be **less than significant**.

3.14.6.2 Criterion b)

As discussed above, the Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. Therefore, there would be no incremental impact that would be cumulatively considerable, and no cumulative impacts would occur associated with the Project. (*No Impact*)

3.14.7 References

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3.15 Public Services

This section evaluates the potential impacts of the Project related to public services. It presents information about the environmental and regulatory setting, and it identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. The public services analyzed in this section include fire protection, emergency medical services, police protection, schools, and other public facilities. Topics related to population and housing are discussed in Section 3.14, *Population and Housing*, as these they relate to public services facilities. Parks and recreational facilities are evaluated further in Section 3.16*, Recreation*.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the scope of the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to public services for the Project.

3.15.1 Environmental Setting

The communities served in the Project area include the city of San José and unincorporated Santa Clara County. The public services facilities serving these communities include fire departments, law enforcement, medical facilities, schools, and other public services facilities, as depicted in **Figure 3.15-1**, *Public Services*, and are further described below.

3.15.1.1 Regional Setting

Police Protection

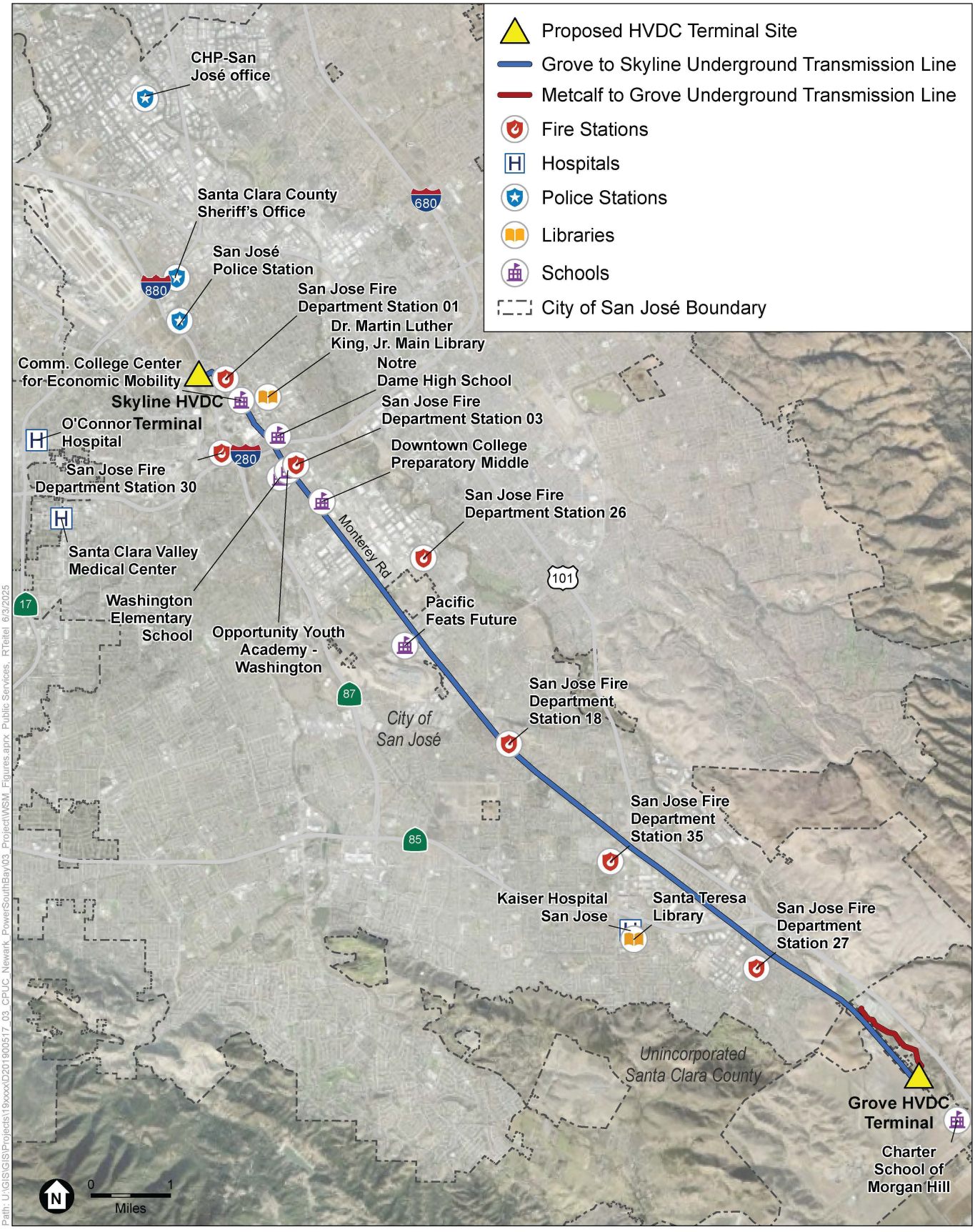
The Project area would be served by the San José Police Department, the Santa Clara County Sheriff's Office, and the California Highway Patrol.

California Highway Patrol

The California Highway Patrol (CHP) is a law enforcement agency created in 1929 to provide uniform traffic law enforcement for the State of California. The CHP has jurisdiction over all interstates and state routes in the Project area, including U.S. Route 101, State Routes 85, 87, and 130, and Interstates 280 and 880. The Project area is served by the CHP Golden Gate Division, which oversees 11 Bay Area offices, including CHP–San José (CHP 2025). The CHP–San José office is located at 2020 Junction Avenue, San José.

San José Police Department

The San José Police Department (SJPD) employs approximately 1,700 people (SJPD 2025a). During 2023–2024, the department had 1,173 authorized sworn positions and 577 authorized civilian positions, totaling 1,750 staff members (SJPD 2024). The SJPD station is located at 201 West Mission Street, San José, approximately 0.65 mile northwest of the proposed Skyline HVDC Terminal. The SJPD handles both emergency and non-emergency calls across the city's 16 patrol districts, which are divided into police "beats" (SJPD 2025b). The 16 patrol districts



SOURCE: ESA, 2024

Power Santa Clara Valley Power

Figure 3.15-1
Public Services

comprise four divisions: Central, Foothill, Southern, and Western, each containing four districts. The Project area falls within the Southern Division within District Y.

Santa Clara County Sherrif's Office

The Santa Clara County Sherrif's Office provides police protection services to all unincorporated areas within Santa Clara County. The Law Enforcement Services Bureau includes over 350 sworn and professional staff members (Santa Clara County 2025a). The Sheriff's Office is located at 55 West Younger Avenue, San José, approximately 1 mile north of the proposed Skyline HVDC Terminal. As the primary law enforcement authority in Santa Clara County, it oversees an area spanning 1,300 square miles (Santa Clara County 2025b).

Fire Protection and Emergency Medical Services

The San José Fire Department (SJFD) provides fire and life-saving services to the city of San José and unincorporated areas of Santa Clara County. These services include fire suppression, advanced life support, urban search and rescue, hazardous materials response, aircraft rescue and firefighting, fire prevention, arson investigation, mutual aid, and public education (SJFD 2025a). SJFD serves approximately 1.2 million residents over a 200-square-mile service area and would respond to emergencies within the entire Project area. **Table 3.15-1**, *Fire Stations in the Project's Vicinity*, lists the locations and approximate distances of seven SJFD fire stations in the Project's vicinity. Overall, SJFD operates 34 fire stations (SJFD 2025b), including two located in downtown San José: Fire Station 01 and Fire Station 30.

TABLE 3.15-1
FIRE STATIONS IN THE PROJECT'S VICINITY

Fire Station Name	Location	Approximate Distance from the Project
Fire Station 01	225 N Market Street, San José, CA 95110	0.26 mile from the proposed Skyline HVDC Terminal; adjacent to the proposed Grove to Skyline 320 kV Transmission Line
Fire Station 03	98 Martha Street, San José, CA 95112	0.1 mile from the proposed Grove to Skyline 320 kV Transmission Line
Fire Station 18	4430 Monterey Road, San José, CA 95111	Adjacent to the proposed Grove to Skyline 320 kV Transmission Line
Fire Station 26	528 Tully Road, San José, CA 95111	0.65 mile from the proposed Grove to Skyline 320 kV Transmission Line
Fire Station 27	6027 San Ignacio Avenue, San José, CA 95123	0.25 mile from the proposed Grove to Skyline 320 kV Transmission Line; 2.4 miles from the proposed Grove HVDC Terminal
Fire Station 30	454 Auzerais Avenue, San José, CA 95126	1 mile from the proposed Skyline HVDC Terminal; 0.53 mile from the proposed Grove to Skyline 320 kV Transmission Line
Fire Station 35	135 Poughkeepsie Road, San José, CA 95123	0.3 mile from the proposed Grove to Skyline 320 kV Transmission Line

SOURCE: City of San José, 2025b.

Emergency response services in the Project area are also provided by the SJFD. As stated above, the SJFD provides advanced life support (paramedic) first-response services under an agreement with the Santa Clara County Emergency Medical Services agency.

Schools

The San José Unified School District provides education from transitional kindergarten (TK) through grade 12, serving approximately 25,000 students across 41 schools from downtown San José to Almaden Valley, and employs 2,883 staff members (SJUSD 2025). San José Unified School District's main office is located at 855 Lenzen Avenue, San José.

The Oak Grove School District provides education from TK through grade 8, serving approximately 8,690 students across 14 elementary schools and three intermediate schools. The Oak Grove School District is located in the southeastern corner of San José, generally bounded by Capitol Expressway to the north, Canoas Creek to the west, Bernal Road to the south, and the foothills to the east (OGSD 2025). The Oak Grove School District's main office is located at 6578 Santa Teresa Boulevard, San José.

Franklin-McKinley School District provides education from TK through grade 8, serving approximately 7,892 students across 13 elementary schools and three middle schools (Education Data Partnership 2025; FMSD 2025). Franklin-McKinley School District's main office is located at 645 Wool Creek Drive, San José.

East Side Union School District provides education from grades 9 through grade 12, serving over 24,000 students across 11 comprehensive high schools, seven alternative education sites, seven child development centers, and seven independent charter schools (ESUSD 2025). East Side Union School District encompasses 180 square miles, and the main office is located at 830 North Capitol Avenue, San José.

Morgan Hill Unified School District provides education from TK through grade 12, serving over 8,100 students over six elementary schools, two elementary/middle schools, one "Dual Immersion magnet program," which aims to develop bilingualism in students, two middle schools, two comprehensive high schools, one continuation high school, and a community adult school (MHUSD 2025). Morgan Hill Unified School District's main office is located at 15600 Concord Circle, Morgan Hill.

In addition to the school districts discussed above, the city of San José also has private schools ranging from preschool through high school. The closest school to the proposed Skyline HVDC Terminal is Hillbrook School–San José Campus, a private high school located approximately 0.44 mile southeast of the terminal site at 240 N. 2nd Street, San José (Hillbrook School 2025). The closest school to the proposed Grove HVDC Terminal is Morgan Hill's Charter Schools, located approximately 0.6 mile southeast of the terminal site at 9530 Monterey Road, Morgan Hill. Figure 5.15-1 shows schools within a 0.25-mile radius from the Project's proposed transmission lines.

See Section 3.9, *Hazards and Hazardous Materials*, for a discussion of potential impacts related to construction and operation of the Project within 0.25 mile of schools.

Parks and Recreational Facilities

The Project would be in the service area of the city of San José's Parks, Recreation, & Neighborhood Services (PRNS) and the Santa Clara County Parks and Recreation Department. See Section 3.16, *Recreation*, for a comprehensive list and map of parks and other recreational facilities in the Project's vicinity, and a discussion of potential impacts related to the construction and operation and maintenance of the Project related to recreational facilities. The City of San José's PRNS operates the city's regional and neighborhood parks and facilities. The City of San José's PRNS manages 205 neighborhood and 10 regional parks, and facilities such as community gardens, trails, and swimming pools (City of San José 2024a). Excluding the three golf courses operated by the city of San José's PRNS, the developed portion of these facilities covers 1,801 acres and 1,499 acres of additional open space and undeveloped land (City of San José 2024a).

Santa Clara County Parks and Recreation Department

The Santa Clara County Parks and Recreation Department has provided recreational opportunities and parks for Santa Clara County residents for more than 65 years (Santa Clara County 2025c). The Santa Clara County Parks and Recreation Department regional park system preserves natural resources and provides recreational opportunities to residents at 28 park locations encompassing more than 55,000 acres (Santa Clara County 2025c). Additionally, the Santa Clara County Parks and Recreation Department offers five camping parks, 10 reservoirs for recreational boating and fishing, 350 miles of hiking, horseback riding, and biking trails, one motorcycle park, hang gliding, historic and cultural sites, a boat launch to the San Francisco Bay, and more (Santa Clara County 2025c).

Other Public Facilities

Medical Facilities

Several public hospitals are in the Project's vicinity, including the following:

- Santa Clara Valley Medical Center is located approximately 1.36 miles east (761 E Santa Clara Street, San José) near the proposed Skyline HVDC Terminal.
- O'Connor Hospital is located 2.16 miles west (2105 Forest Avenue, San José) near the proposed Skyline HVDC Terminal.
- Kaiser Permanente San José Medical Center is located 0.8 mile west of the proposed Grove to Skyline 320-kilovolt direct current Transmission Line and 4 miles northwest of the proposed Grove HVDC Terminal (250 Hospital Parkway, San José).

Additionally, several additional medical facilities are in the greater San José area, including Good Samaritan Hospital, Valley Health Center, and El Camino Health.

Libraries

Library services in the city of San José are provided by the San José Public Library System, which consists of 25 libraries throughout the city (SJPL 2025). The main library is located at 150 E San Fernando Street, San José. The nearest library to the proposed Skyline HVDC Terminal is the Dr. Martin Luther King, Jr. Library, located approximately 0.85 mile southeast at 150 E San Fernando Street, San José. The nearest library to the proposed Grove HVDC Terminal

is the Santa Teresa Branch Library, located 3.85 miles northwest at 290 International Circle, San José.

3.15.2 Regulatory Setting

3.15.2.1 Federal

No federal policies or regulations pertaining to public services would be applicable to the Project.

3.15.2.2 State

California Education Code

The following policies in the California Education Code pertain to public schools (California Legislative Information 2021):

> ***Section 8241.*** *Until the Superintendent of Public Instruction promulgates regulations for center-based programs establishing staffing ratios, the following staffing ratios shall apply:*
>
> *(a) Infants, 0 to 2 years old—1:3 adult-child ratio, 1:18 teacher-child ratio.*
>
> *(b) Infants and toddlers, 0 to 2 years old—1:4 adult-child ratio, 1:16 teacher-child ratio.*
>
> *(c) Children 3 to 6 years old—1:8 adult-child ratio, 1:24 teacher-child ratio.*
>
> *(d) Children 6 to 10 years old—1:14 adult-child ratio, 1:28 teacher-child ratio.*
>
> *(e) Children 10 to 13 years old—1:18 adult-child ratio, 1:36 teacher-child ratio.*
>
> *(f) If groups of children of varying ages are commingled, the teacher and adult ratios shall be proportionate and appropriate to the ages and groups of children.*

3.15.2.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to public services that would otherwise be relevant to the Project and alternatives are described below.

Santa Clara County General Plan

The Santa Clara County General Plan (Santa Clara County 1994) includes the following policies related to public services that are relevant to the Project:

> ***Policy C-HS 17*****:** Local governments should comply with all federal and state regulations regarding emergency planning and preparedness.
>
> ***Policy C-HS 18*****:** Local government, business, and community organizations should cooperate in preparing the most effective emergency response plans and procedures feasible.

San José General Plan

The City of San José *Envision San José 2040 General Plan* (City of San José 2024b) includes the following goals and policies related to public services that are relevant to the Project:

Goal ES-1: Promote the operation of high-quality educational facilities throughout San José as a vital element to advance the City's Vision and goals for community building, economic development, social equity, and environmental leadership.

***Policy ES-1.1*:** Facilitate open communication between the City, public school districts and the development community in order to coordinate the activities of each to achieve the highest quality of education for all public school students.

***Policy ES-1.2*:** Encourage school districts, the City, and developers to engage in early discussions regarding the nature and scope of proposed projects and possible fiscal impacts and mitigation measures. These discussions should occur as early as possible in the project planning stage, preferably preceding land acquisition.

***Policy ES-1.14*:** Collaborate with school districts, the community, post-secondary institutions, businesses, and industry to ensure availability of necessary resources to meet student needs.

***Policy ES-3.1*:** Provide rapid and timely Level of Service response time to all emergencies:

1. For police protection, use as a goal a response time of six minutes or less for 60 percent of all Priority 1 calls, and of eleven minutes or less for 60 percent of all Priority 2 calls.
2. For fire protection, use as a goal a total response time (reflex) of eight minutes and a total travel time of four minutes for 80 percent of emergency incidents.
3. Enhance service delivery through the adoption and effective use of innovative, emerging techniques, technologies and operating models.
4. Measure service delivery to identify the degree to which services are meeting the needs of San José's community.
5. Ensure that development of police and fire service facilities and delivery of services keeps pace with development and growth in the city.

Goal ES-3: Provide high-quality law enforcement and fire protection services to the San José community to protect life, property and the environment through fire and crime prevention and response. Utilize land use planning, urban design and site development measures and partnerships with the community and other public agencies to support long-term community health, safety and well-being.

***Policy ES-3.2*:** Strive to ensure that equipment and facilities are provided and maintained to meet reasonable standards of safety, dependability, and compatibility with law enforcement and fire service operations.

***Policy ES-3.5*:** Co-locate public safety facilities with other public or private uses to promote efficient use of space and provision of police and fire protection services within dense, urban portions of the city.

***Policy ES-3.6*:** Work with local, State, and Federal public safety agencies to promote regional cooperation in the delivery of services. Maintain mutual aid agreements with surrounding jurisdictions for emergency response.

***Policy ES-3.9*:** Implement urban design techniques that promote public and property safety in new development through safe, durable construction and publicly visible and accessible spaces.

***Policy ES-3.10*:** Incorporate universal design measures in new construction and retrofit existing development to include design measures and equipment that support public safety for people with diverse abilities and needs. Work in partnership with appropriate agencies to incorporate technology in public and private development to increase public and personal safety.

***Policy ES-3.11*:** Ensure that adequate water supplies are available for fire-suppression throughout the City. Require development to construct and include all fire suppression infrastructure and equipment needed for their projects.

***Policy ES-3.14*:** Encourage property maintenance and pursue appropriate code enforcement to reduce blight, crime, fire hazards, or other unsafe conditions associated with under-maintained and under-utilized properties.

***Policy ES-3.15*:** Apply demand management principles to control hazards through enforcement of fire and life safety codes, ordinances, permits, and field inspections.

***Policy ES-3.19*:** Remove excessive/overgrown vegetation (e.g., trees, shrubs, weeds) and rubbish from City-owned property to prevent and minimize fire risks to surrounding properties.

Goal ES-4: Promote community safety through planning, preparedness, and emergency response to natural and human-made disasters. Strive to protect the community from injury and damage resulting from natural catastrophes and other hazard conditions. Use emergency management planning to mitigate the effects of emergency situations.

***Policy ES-4.4*:** Implement the ABAG multi-jurisdictional local hazard mitigation plan through the Safety Element of the Envision General Plan, the requirements for project review of the California Environmental Quality Act (CEQA), and on-going capital improvement programs.

***Policy ES-4.5*:** Cooperate with other public and private jurisdictions and agencies to coordinate emergency response and relief efforts and to ensure adequate resources, facilities, and other support for emergency response.

***Policy ES-4.9*:** Permit development only in those areas where potential danger to the health, safety, and welfare of persons in that area can be mitigated to an acceptable level.

Goal ES-6: Provide for the health care needs of all members of the San José community.

***Policy ES-6.14*:** Encourage major land use planning efforts (including future General Plan updates, Specific Plans, and Urban Village plans having over 5,000 housing units) to consider strategies to address health care and medical service needs as part of the planning process.

Goal PR-1: Provide park lands, trails, open space, recreation amenities, and programs, nationally recognized for their excellence, which enhance the livability of the urban and suburban environments; preserve significant natural, historic, scenic and other open space resources; and meet the parks and recreation services needs of San José's residents, workers, and visitors.

***Policy PR-1.1*:** Provide 3.5 acres per 1,000 population of neighborhood/community serving parkland through a combination of 1.5 acres of public park and 2.0 acres of recreational school grounds open to the public per 1,000 San José residents.

3.15.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility will be responsible for implementing its measures only to that part of the Project for which it will own or be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Chapter 2, Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.15.3.1 Applicant-Proposed Measures

No Applicant-proposed measures have been proposed by LSPGC to address potential effects on public services.

3.15.3.2 PG&E Best Management Practices and Field Protocols

No PG&E best management practices or field protocols have been proposed to specifically reduce potential impacts on public services.

3.15.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant impact on public services if it would do any of the following:

a) Result in a substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to

maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

i) Fire protection

ii) Police protection

iii) Schools

iv) Parks

v) Other public facilities

3.15.5 Direct and Indirect Effects

3.15.5.1 Approach to Analysis

This section discusses potential impacts on public services in accordance with Appendix G of the CEQA Guidelines. It is assumed that the Project would comply with applicable local and state laws and regulations, and governing agencies and institutions would be expected to continue to enforce applicable requirements to the extent that they do so currently.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.15.5.2 Impact Assessment

Criterion a) Whether the Project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection, police protection, schools, parks, or other public facilities.

The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection, police protection, schools, parks, or other public facilities. (*No Impact*)

Fire Protection

Construction

Incidental events may occur during Project construction and require emergency response services, including fire protection. Temporary lane closures during construction activities could result in delays that could affect emergency response times; however, such delays would not require the

construction of new or altered facilities to provide adequate fire protection services. See Impact 3.17-4 in Section 3.17, *Transportation*, for additional discussion about construction-related lane closures and their associated impacts on emergency response.

As indicated in Section 2.9.4, *Construction Schedule*, LSPGC anticipates that the Project's construction would take approximately 27 months and require up to 250 workers distributed across multiple work sites in the Project area. It is likely that all temporary positions would be filled from the local construction labor pool available in the Greater Bay Area, with workers expected to commute to the site rather than relocate.

Since construction activities would be limited in duration and could be accomplished using a local construction workforce and standard construction practices, they would not increase the short-term demand for fire protection services that would necessitate new or physically altered facilities. In addition, the proposed construction activities would be accounted for in local planning and are, therefore, not expected to spontaneously increase demand. As discussed in Section 3.14, *Population and Housing*, the Project would not result in a notable increase in local population or housing, which would typically drive increased demand for fire protection services. However, temporary lane closures during construction could still affect emergency response times, but not to the extent that additional fire protection facilities would be required. Therefore, there would be no impact.

Operation

Once operational, the Project facilities would be primarily operated remotely; however, these facilities would continue to require routine maintenance, inspection, and occasional repairs. As with construction, emergency situations requiring fire protection services could occur during the operation and maintenance phase. However, such situations would be infrequent and could be addressed by existing fire protection providers. Any occasional accidents or incidents that could occur would not generate a level of demand for fire protection services that would necessitate new fire protection facilities. As discussed in Section 3.15.1, *Environmental Setting*, the local fire protection facilities that would serve the Project in an emergency are already established and would not change because of the Project. Additionally, as discussed in Section 3.14, *Population and Housing*, the Project would not increase population or housing to a level that would require new or physically altered fire protection facilities.

For these reasons, the Project's operation and maintenance would not require the construction of new or physically altered fire protection facilities to maintain acceptable service ratios, response times, or other performance standards. Therefore, there would be no impact.

Police Protection

Construction

As with fire response, emergency situations may arise during Project construction and require police protection. Temporary lane closures during construction activities could affect police response times, but not to the extent that would require the construction of new or altered police

facilities. See Impact 3.17-4 in Section 3.17, *Transportation*, for the Project's effects on emergency service provider access due to construction-related lane closures.

As described in Section 2.8.7, *Public Safety and Traffic Control*, public access to the construction sites and staging areas would be restricted for the approximately 24-month construction period. The high-voltage direct current terminal construction and staging areas would be fenced off to restrict public access. Additional security measures, including security lighting and fencing at construction staging areas and substations/switchyard, would help reduce crime and the need for police services.

Despite these measures, police response may be required in the event of vandalism, theft, or trespassing at Project work sites. Although the Project may result in increased demand for police services, such an increase would be occasional and negligible. As discussed in Section 3.14, *Population and Housing*, the Project would not result in a notable increase in local population or housing, which would typically be associated with increased demand for police services. Therefore, the Project would not require construction of new or physically altered police protection facilities to maintain acceptable service ratios, response times, or other performance standards. Temporary lane closures during construction could affect or otherwise delay response times for law enforcement, but not to the extent that new police protection facilities would be needed. Therefore, there would be no impact.

Operation

The Project could result in an impact on police protection if its operation and maintenance would require additional police resources, necessitating new facilities. However, the facilities would be remotely operated and would generally not require additional police protection. Periodic maintenance and repair would occur in accordance with CPUC General Order 165 vegetation clearance requirements and other applicable regulations (CPUC 1997). Although the Project may result in a small increased demand for police services if an incident or accident should occur, this increase would be negligible. As discussed in Section 3.14, *Population and Housing*, the Project would not increase population or housing to a level that would require new or modified public services facilities.

The Project would not require the construction of new or physically altered police protection facilities to maintain acceptable service ratios, response times, or other performance standards. Therefore, there would be no impact.

Parks

The Project could have the potential to cause minor impacts to trails; however, the Project would likely not increase the use of parks. As indicated in Section 3.14, *Population and Housing*, the Project is not likely to directly or indirectly increase the population. Therefore, the Project would not require the construction of new parks or modification of existing parks, and there would be no impact related to park construction. See Section 3.16, *Recreation*, for a discussion of potential Project impacts on recreational facilities.

Other Public Facilities

As discussed in Section 3.14, *Population and Housing*, the Project would not result in substantial adverse impacts on other public facilities (e.g., public libraries, hospitals, or other civic uses) because it would not result in an increase in local population or housing, which is typically associated with increased demand for such facilities. Although it is unlikely, Project construction could result in a negligible increased use of other types of public services, such as medical facilities and libraries, for emergency and intermittent personal use. However, such increases would be minimal and would not require the construction of new public facilities or the modification of existing ones, which could cause significant environmental effects. Therefore, there would be no impact.

Conclusion Summary

The Project's construction and operation would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities. It would not necessitate new or physically altered governmental facilities that could cause significant environmental impacts to maintain acceptable service ratios, response times, or other performance objectives for fire protection, police protection, schools, parks, or other public facilities. During construction, temporary lane closures could delay police and fire response times; however, these delays would not require new emergency response facilities. Therefore, there would be no impact.

For the purposes of this CEQA analysis, the Project includes both LSPGC's Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 2, *Project Description*. Therefore, the impact discussion within this section considers the construction and operation of the PG&E substations' expansion and modifications, concluding that they would have the same impact as the Project. As with the LSPGC portion of the Project, the PG&E facilities would result in no impact on fire protection, police protection, schools, parks, or other public facilities.

3.15.6 Cumulative Effects Analysis

As stated in Section 3.15.5, *Direct and Indirect Impacts of the Project*, the Project would have negligible impacts on public service resources. There would be no impacts associated with traffic delays and public service response times and no public facilities would be necessitated. Therefore, there would be no incremental impacts associated with the construction of such facilities attributable to the Project, and there would be no cumulative impact on public services associated with the Project. (*No Impact*)

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3.16 Recreation

This section evaluates the potential impacts of the Project related to recreational resources. It includes information about the environmental and regulatory settings and identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. The study area includes the Project boundary, including all Project components, as well as recreational areas and facilities within 0.5 mile of the Project in the city of San José and unincorporated Santa Clara County.

During the scoping period for the EIR, CPUC received scoping comments from the public and Santa Clara Valley Water District (Valley Water) pertaining to recreation. Valley Water noted that the Project crosses the Coyote Creek Trail and the Guadalupe River Trail, which are both located on Valley Water property. Valley Water further noted that these particular trail sections are managed under joint use agreements with the city of Milpitas and the city of San José. One member of the public expressed concerns regarding bicyclist safety and closures along Coyote Creek Trail. Valley Water suggested that impacts to both trails should be analyzed within the recreation section of the EIR. Copies of scoping comments are provided in **Appendix A**, *Scoping Report*.

3.16.1 Environmental Setting

This section covers the existing recreational and open space resources within the Project area. The Project boundary (which includes all Project components) covers approximately 13 miles within the city of San José and unincorporated Santa Clara County, and numerous parks, trails, and recreational areas are within a 0.5-mile buffer of the Project boundary. Recreational areas within a 0.5-mile radius of the Project components, including the Grove to Skyline 320-kilovolt (kV) direct current underground transmission line (Grove to Skyline 320 kV Transmission Line), Metcalf to Grove 500 kV alternating current underground transmission line (Metcalf to Grove 500 kV Transmission Line), and the Skyline High-Voltage Direct Current (HVDC) Terminal, are listed in **Table 3.16-1**, *Recreational Areas and Facilities within 0.5 Mile of the Project*, and visually displayed in **Figure 3.16-1**, *Recreational Areas and Facilities*. The following section provides a detailed description of the recreational areas by jurisdiction.

3.16.1.1 Federal Recreation Resources

National Park Service

The Butterfield Overland National Historic Trail is a historic alignment managed by the National Park Service that was used as an overland mail route between the eastern United States and the growing settler populations in the West (NPS 2024). It followed a southerly course through Missouri, Arkansas, Texas, Oklahoma, New Mexico, and Arizona before jutting into California toward its western terminus in San Francisco. Today, some segments of the trail are open to the public for hiking and other means of recreation, while others are privately owned. In the 0.5-mile Project buffer, the trail is not a traditional trail with endpoints but rather a corridor that runs through urban areas, wilderness, communities, and public lands. The Butterfield Overland National Historic Trail coincides with existing developed roadways within the Project boundary, including South

TABLE 3.16-1
RECREATIONAL AREAS AND FACILITIES WITHIN 0.5 MILE OF THE PROJECT

Recreational Area/ Facility	Managing Agency	Nearest Project Component Site or Alignment	Distance from Nearest Project Component Site/Alignment
Almaden Entrance Triangle Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.2 mile
Bellevue Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.05 mile
Bestor Art Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.2 mile
Cadwallader Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.008 mile
Chynoweth Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.3 mile
Danna Rock Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.1 mile
Delmas Dog Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.4 mile
Discovery Meadow	City of San José	Grove to Skyline 320 kV Transmission Line	0.3 mile
Edenvale Gardens Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.04 mile
Guadalupe Gardens	City of San José	Skyline HVDC Terminal	0.5 mile
Guadalupe River Parkchain	City of San José	Grove to Skyline 320 kV Transmission Line	0.1 mile
Heritage Rose Garden	City of San José	Skyline HVDC Terminal	0.4 mile
Historic Orchard	City of San José	Skyline HVDC Terminal	0.4 mile
Los Paseos Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.06 mile
McEnery Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.3 mile
Metcalf Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.08 mile
North Coyote Valley Conservation Area	City of San José; Peninsula Open Space Trust	Grove to Skyline 320 kV Transmission Line; Grove to Skyline 320 kV Transmission Line	0.04 mile; 0.2 mile
O'Donnell Garden Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.3 mile
Parkview III	City of San José	Grove to Skyline 320 kV Transmission Line	0.4 mile
Parque de los Pobladores	City of San José	Grove to Skyline 320 kV Transmission Line	0.008 mile
Parque de Padre Mateo Sheedy	City of San José	Grove to Skyline 320 kV Transmission Line	0.4 mile
Pellier Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.03 mile
Plaza de Cesar Chavez	City of San José	Grove to Skyline 320 kV Transmission Line	0.006 mile
Pocket Park No. 23	City of San José	Grove to Skyline 320 kV Transmission Line	0.4 mile

TABLE 3.16-1
RECREATIONAL AREAS AND FACILITIES WITHIN 0.5 MILE OF THE PROJECT

Recreational Area/ Facility	Managing Agency	Nearest Project Component Site or Alignment	Distance from Nearest Project Component Site/Alignment
Raleigh Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.4 mile
Ramac Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.1 mile
Roberto Antonio Balermino Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.5 mile
Ryland Park	City of San José	Skyline HVDC Terminal	0.1 mile
Silver Leaf Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.1 mile
Solari Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.4 mile
St. James Park	City of San José	Grove to Skyline 320 kV Transmission Line	0.1 mile
Guadalupe River Park	City of San José; Santa Clara Valley Water District	Skyline Terminal; Grove to Skyline 320 kV Transmission Line	0.2 mile; 0.2 mile
Tulare Hill	Land Trust of Santa Clara Valley	Grove to Skyline 320 kV Transmission Line	0.1 mile
Butterfield Overland National Historic Trail	National Park Service	Skyline terminal; Grove to Skyline 320 kV Transmission Line	0.3 mile; alignment crosses area
Santa Clara County Fairgrounds	Santa Clara County Fairgrounds Management Corporation	Grove to Skyline 320 kV Transmission Line	Alignment is adjacent to area
Coyote Creek Parkway and Trail	Santa Clara County Parks and Recreation Dept.; Santa Clara Valley Water District	Metcalf to Grove 500 kV Transmission Line	Alignment crosses area
Field Sports Park	Santa Clara County Parks and Recreation Dept.	Metcalf to Grove 500 kV Transmission Line	0.2 mile
Martial Cottle Park	Santa Clara County Parks and Recreation Dept.	Grove to Skyline 320 kV Transmission Line	0.4 mile
Motorcycle County Park	Santa Clara County Parks and Recreation Dept.	Metcalf to Grove 500 kV Transmission Line	0.4 mile
Tulare Hill Land Bank	Santa Clara County Parks and Recreation Dept.	Grove to Skyline 320 kV Transmission Line	0.03 mile
Tulare Hill Wedge Open Space Regional Reserve	Santa Clara Valley Habitat Agency	Grove to Skyline 320 kV Transmission Line	0.03 mile
Arena Green	Santa Clara Valley Water District	Grove to Skyline 320 kV Transmission Line	0.2 mile

NOTES:

Dept. = department; Grove to Skyline 320 kV Transmission Line = Grove to Skyline 320-kilovolt direct current underground transmission line; Metcalf to Grove 500 kV Transmission Line = Metcalf to Grove 500 kV alternating current underground transmission line

SOURCE: CPAD 2024

SOURCE: CPAD, 2024

Power Santa Clara Valley Project

Figure 3.16-1a
Recreational Areas and Facilities

SOURCE: CPAD, 2024

Power Santa Clara Valley Project

Figure 3.16-1b
Recreational Areas and Facilities

Market Street, First Street, and Monterey Road. The proposed underground Grove to Skyline transmission line would cross the trail at Devine Street and would overlap it for approximately 12 miles from Santa Clara Street to the southern boundary of the proposed Grove HVDC Terminal.

3.16.1.2 State Recreation Resources

No state recreational areas are on or within 0.5 mile of the Project terminals, substations, or transmission line alignments.

3.16.1.3 Local Recreation Resources

Santa Clara County

The Santa Clara County Parks and Recreation Department manages three recreational parks, a parkway, and a land bank throughout the county. Among these is the Coyote Creek Parkway, a 15-mile scenic parkway that meanders along Coyote Creek and provides a paved multiuse trail for pedestrians, bicyclists, and rollerbladers, as well as an equestrian trail that parallels the paved trail (Santa Clara County 2024). The parkway also offers space for picnics, disc golf, and fishing. The underground Metcalf to Grove transmission line would traverse through Coyote Creek Parkway and overlap with portions of Coyote Creek Trail. The Coyote Creek Parkway and Trail would also be adjacent to the northeast border of the Grove HVDC Terminal, as shown in Figure 3.16-1**.** As noted previously and discussed by Valley Water in Appendix F, the particular sections of Coyote Creek Trail that would be intersected by the Project are managed under joint use agreements with the City of Milpitas and the city of San José.

Field Sports Park, Martial Cottle Park, and Motorcycle County Park are also managed by the Santa Clara County Parks and Recreation Department, although none of these parks fall within or overlap the Project boundary. Field Sports Park offers a rifle and pistol firing range, and an area for trap and skeet shooting (Santa Clara County Parks 2024). Martial Cottle Park offers multiuse paved trails and picnic areas, and Motorcycle County Park is a motorcycle park with trails, picnic areas, and water stations. The Santa Clara County Parks and Recreation Department also manages the Tulare Hill Land Bank, which is 0.03 mile from the Grove to Skyline transmission line. The department manages approximately 141 acres of the 339-acre Tulare Hill, which includes recreational trails and allows for nature walks, given Tulare Hill's status as a habitat for unified Bay checkerspot butterfly (*Euphydryas Editha* bayensis) (Creekside Science 2023). The Land Trust of Santa Clara Valley manages other areas of Tulare Hill, such as the Tulare Hill Ecological Preserve, and the Santa Clara Valley Habitat Agency oversees the Tulare Hill Wedge Open Space Regional Reserve.

Valley Water manages Arena Green Park and Guadalupe River Park. Guadalupe River Park is also managed by the city of San José, as depicted in Table 3.16-1. Both Arena Green Park and Guadalupe River Park are located in San José, approximately 0.2 mile from the Grove to Skyline transmission line.

The Peninsula Open Space Trust and the city of San José manage the North Coyote Valley Conservation Area, which ranges from 0.3 mile from the Grove to Skyline 320 kV transmission line in some sections to 0.04 mile from the transmission line in other parts of the Conservation

Area. It is a popular destination for bird watchers, with over 215 species of resident and migratory birds having been observed in North Coyote Valley (Santa Clara Valley Bird Alliance 2024).

Finally, the Santa Clara County Fairgrounds are managed by the Santa Clara County Fairgrounds Management Corporation and would be located directly adjacent to the Grove to Skyline 320 kV transmission line. The fairgrounds typically offer a space for livestock shows, carnival rides, art exhibits, concessions, and volunteer opportunities for approximately 1 week during the summer (Santa Clara County Fairgrounds Management Corporation 2024).

City of San José

Thirty-two recreational areas are within the 0.5-mile buffer that are managed by the city of San José, as listed in Table 3.16-1. Although these recreational areas are in deeply urban areas and none would be situated within or on the Project transmission alignments, several parks are within very close proximity to the Project. Plaza de Cesar Chavez, situated on 2 acres in the heavily developed Downtown San José, would sit just 0.006 mile (30.7 feet) west of the Grove to Skyline transmission line. Cadwallader Park and Parque de los Pobladores, both urban parks offering walking paths and picnic areas, are located approximately 0.008 miles (41.2 feet and 43.1 feet, respectively) east of the Grove to Skyline 320 kV Transmission Line. Similarly, Pellier Park, Danna Rock Park, Edenvale Gardens Park, Bellevue Park, Los Paseos Park, Metcalf Park, St. James Park, Guadalupe River Parkchain, Ramac Park, Ryland Park, Silver Leaf Park, Almaden Entrance Triangle Park, Bestor Art Park, McEnery Park, Chynoweth Park, O'Donnell Garden Park, Solari Park, Raleigh Park, Parque de Padre Mateo Sheedy, Pocket Park No. 23, Parkview III, Delmas Dog Park, and Roberto Antonio Balermino Park all offer urban park, playground, or picnic space and range from 0.03 to 0.5 mile from one or more Project components.

The North Coyote Valley Conservation Area is under the jurisdiction of both the Peninsula Open Space Trust and the city of San José, as mentioned previously. The Conservation Area is just 15 miles south of Downtown San José and is visible via the Coyote Creek Parkway and its many recreational trails. The North Coyote Valley Conservation Area is popular amongst recreational bird watchers, and 60 individuals have reported observing 169 bird species on eBird, an online platform designed by CornellLab for bird watchers to report their bird sightings (eBird 2025).

Discovery Meadow is located between San Carlos Street and Woz Way in San José and offers a concert and live performance venue as well as an open park area. It can accommodate up to 26,000 people and sits approximately 0.3 mile from the Grove to Skyline 320 kV Transmission Line (City of San José 2024b). Guadalupe River Park and Gardens range from 0.1 to 0.5 mile from Project components, including the Skyline HVDC terminal and the Grove to Skyline 320 kV Transmission Line, and offer residents and visitors 2.6 miles of trails, occasional festivals and art shows, wildlife, river views, and the Historic Orchard and Heritage Rose Garden (Guadalupe River Park Conservancy 2024a). Historic Orchard sits on the southern end of Guadalupe River Park and serves as a historic center for California's fruit industry. It is home to over 200 fruit trees and offers an educational experience for families interested in learning about where their produce comes from (Guadalupe River Park Conservancy 2024b). Historic Orchard is approximately 0.4 mile from the Skyline HVDC terminal. Heritage Rose Garden is situated approximately 0.4 mile from the Skyline HVDC terminal and boasts the largest public collection

of roses in the Western Hemisphere, with over 3,000 varieties and over 4,000 planted roses (Guadalupe River Park Conservancy 2024a). It provides a safe haven for important rose species and offers volunteer opportunities for community members as well as an Adopt-a-Rose program (Guadalupe River Park Conservancy 2024a).

3.16.2 Regulatory Setting

3.16.2.1 Federal

National Trails System Act of 1968

The National Trails System Act of 1968 established a trails system in both urban and rural settings. The law promotes the enjoyment and appreciation of trails while encouraging public access. Additionally, the law establishes four classes of trails, which consist of national scenic trails, national historic trails, national recreational trails, and side and connecting trails (NPS 2019).

3.16.2.2 State

No state statutes, regulations, plans, or policies governing recreation-related considerations apply to the Project.

3.16.2.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its 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 Project and alternatives are described below.

Santa Clara County General Plan

The Santa Clara County General Plan encourages keeping rural areas rural, provides policies to promote conservation, public recreation, and the productive use of their natural resources. The strategies and policies established in the County's General Plan acknowledge the importance of recreational resources to the County as well as the need for multi-jurisdictional efforts to continue to preserve recreational lands. The Santa Clara County General Plan (Santa Clara County 1994) includes the following relevant policies to reduce or avoid recreation impacts:

> ***Policy C-PR 5*:** Water resource facilities, utility corridors, abandoned railroad tracks, and reclaimed solid waste disposal sites should be used for compatible recreational uses, where feasible.
>
> ***Policy C-PR 7*:** Opportunities for access to regional parks and public open space lands via public transit, hiking, bicycling, and equestrian trails should be provided. Until public transit service is available, additional parking should be provided where needed.
>
> ***Policy C-PR 8*:** Facilities and programs within regional parks and public open space lands should be accessible to all persons, regardless of physical limitations, consistent

with available financial resources, the constraints of natural topography, and natural resource conservation.

***Policy C-PR 30*:** Trails shall be temporarily closed when conditions become unsafe or environmental resources are severely impacted. Such conditions could include soil erosion, flooding, fire hazard, environmental damage, or failure to follow the specific trail management plan (see Countywide Trails Master Plan – Design and Management Guidelines).

***Policy C-PR 30.1*:** Level-of-use and types-of-use on trails shall be controlled to avoid unsafe conditions or severe environmental degradation.

***Policy C-PR 33.5*:** Public improvements, such as road widenings, bridge construction, and flood control projects, that may impact existing or proposed trails should be designed to facilitate provision of shared use.

Santa Clara County Ordinance Code – Recreational Uses

The Santa Clara County Ordinance Code, Article 1 (Applicability and Definitions), Section B14-11.2, *Definitions*, defines Park Property or Park Areas as, "Any real property (or portions thereof) owned, leased, or licensed by the County or under County use of control through easement or other right and which is operated, maintained, or managed by or for the Department." Article 6 (Improvements), Section B14-26.1, *Disfiguring Property,* states, "No person shall cut, carve, mark, paste, or fasten any bill or advertisement, inscribe on or otherwise disfigure any tree, fence, wall, building, sign, or monument or any other object within any Park area."

Article 2 (Trails), Section B14-42.1, *Trail Use*, states the following:

(a) *The Director may establish trails and designate the uses allowable on trails in Park Areas.*

(b) *The Director may temporarily close a trail or prohibit the operation or use of any trail, even where prior permission or authorization has been granted, in order to ensure the safety of persons or property or to protect the environment.*

(c) *No person shall violate or fail to comply with the allowable trail use restrictions established by the Director or trail closures or restrictions imposed by the Director.*

City of San José General Plan

The *Envision San José 2040 General Plan* encourages providing high quality recreational opportunities. The strategies and policies established in the General Plan at the citywide level acknowledge the importance of recreational resources to the city. The *Envision San José 2040 General Plan* (City of San José 2024a) includes the following relevant policies and action to reduce or avoid recreation impacts:

***Policy PR-7.2*:** Condition land development and/or purchase property along designated Trails and Pathways Corridors in order to provide sufficient trail right-of-way and to ensure that new development adjacent to the trail and pathways corridors does not compromise safe trail access nor detract from the scenic and aesthetic qualities of the corridor. Locate trail rights-of-way consistent with the provisions of the City's Riparian Corridor Policy Study and any adopted Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP).

***Policy PR-8.5*:** Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties.

***Policy PR-8.7*:** Actively collaborate with school districts, utilities, and other public agencies to provide for appropriate recreation uses of their respective properties and rights-of-way. Consideration should be given to cooperative efforts between these entities and the City to develop parks, pedestrian and bicycle trails, sports fields, and recreation facilities.

***Action TN-2.10*:** Work with the Santa Clara Valley Water District and the utilities, including Pacific Gas and Electric Company (PG&E), to explore opportunities to develop trails, joint-use facilities, and/or other recreational amenities along their right-of-way.

City of San José Municipal Code

The city of San José Municipal Code defines a *park* as any outdoor area managed by the Department of Parks, Recreation, and Neighborhood Services, identified by the City as a park, and made available for public use for recreational or open space purposes. The City must have the right of use for such purposes. However, the term *park* does not include areas within a city park designated for use as picnic areas, athletic fields, sports areas, trails and pathways, gardens, or bodies of water, which are governed by the permit requirements established in Chapter 13.44.

Section 13.44.060, Non-Public Areas – Posting Required – Entering or Damaging Property Prohibited, states the following:

> *By posting appropriate notices, the director of the department of recreation, parks, and community services may exclude the public from or limit use of any road, area, building, lands, trail, natural feature, water area, or facility in a city park which is used for access, storage, parking, shop, office, residence, or utility purposes, or other park or recreational use, or any combination thereof, whenever public access to the same will endanger the public health or safety, interfere with such use, or cause damage to such public property or natural resources. The director may also by appropriate means exclude the public from the place of any construction, repair, or demolition activity. No person shall enter or remain or permit any person in their control to enter or remain in any such part of a city park when the same is closed to the public, unless authorized to do so by the director[…]*

3.16.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed by LSPGC and PG&E to reduce Project impacts. Each utility company will be responsible for implementing its respective measures for its portion of the Project.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing

PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Chapter 2, Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.16.3.1 Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measures (APMs) related to recreational resources. The analysis assumes that LSPGC would implement the following APMs as part of the Project:

- **APM REC-1: Trail Management Plan.** LS Power shall coordinate with the city of San José, County of Santa Clara, and the National Park Service for the preparation of the Proposed Project's TMP [Trail Management Plan]. The TMP shall identify if a detour route(s) is required, as well as provide trail-specific traffic control and safety measures for pedestrians, trail users, and motorists.
- **APM REC-2: Trail Safety Crossing Measures.** If Coyote Creek Trail from Metcalf Road to Bailey Avenue is not already closed by Santa Clara County Parks due to flooding of low water trail crossings of Coyote Creek, LS Power's construction contractor shall provide a crossing guard, as needed during periods of active construction along the approximately 0.8-mile portion of Coyote Creek Trail that would be directly impacted by construction of the Proposed Project. Alternatively, if use of a crossing guard is not practical during certain construction activities (i.e., a trail closure is required), the Coyote Creek Trail detour route identified in the TMP shall be implemented. Signage and flagging may be used to help direct trail users and provide safety for both trail users and construction crews.
- **APM REC-3: Trail Restoration.** Areas of Coyote Creek Trail that are temporarily disturbed by the Proposed Project activities shall be restored to approximate preconstruction conditions.

3.16.3.2 PG&E Best Management Practices and Field Protocols

No PG&E best management practices or field protocols have been proposed to specifically reduce potential impacts on recreation.

3.16.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant recreation impact if it would do any of the following:

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The CPUC has identified additional impact criteria specific to the types of projects evaluated by the CPUC that are to be considered along with the criteria identified in CEQA Guidelines Appendix G (CPUC 2019). Regarding recreational resources, the Project would also result in a significant recreation impact if it would:

c) Reduce or prevent access to a designated recreational facility or area.

d) Substantially change the character of a recreational area by reducing the scenic, biological, cultural, geological, or other important characteristics that contribute to the value of recreational facilities or areas.

e) Damage recreational trails or facilities.

3.16.5 Direct and Indirect Effects

3.16.5.1 Approach to Analysis

This section discusses potential impacts on recreational resources in accordance with Appendix G of the CEQA Guidelines and CPUC impact criteria. The Project would be regulated by the applicable regulations related to recreation, as described in Section 3.16.2, *Regulatory Setting,* as well as the various laws, regulations, and policies described in Chapter 2, Section 2.13, *Anticipated Permits and Approvals.* It is assumed that the Project would comply with applicable federal, state, and local laws and regulations, and governing agencies and institutions would be expected to continue to enforce applicable requirements to the extent that they do so currently.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.16.5.2 Impact Assessment

Criterion a) Whether the Project would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Impact 3.16-1: The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. (*Less than Significant*)

Construction

Although construction personnel may use parks during their lunch breaks or non-working hours, the limited usage of recreational facilities by construction personnel would not result in accelerated physical deterioration of the parks listed in Table 3.16-1. Anticipated numbers of construction personnel can be found in Table 2-7, *Construction Equipment and Workforce.*

During construction, it is likely that some recreational facilities, parks, or public lands used for recreational purposes may temporarily close or have access limitations due to the Project's staging, storage, or construction activity. Roadways, such as Monterey Road and Coyote Ranch Road, may experience temporary increases in traffic due to lane or road closures, but all recreational facilities and parks in the area would continue to be accessible by other roadways. These closures or delays would be temporary, limited to the time frame needed for construction in each area.

Additionally, an approximately 0.2-mile section of Coyote Ranch Road would be shifted and reconstructed 200 feet south of its current location. A new turnaround would be constructed at the entrance of Coyote Ranch on Santa Clara County Parks land to allow for more effective ingress and egress of firefighting equipment to Coyote Ranch, as stated in Chapter 2, Section 2.6.4, *Ancillary Facilities*. This could lead to temporary closures of some segments of recreational trails or their access areas, including Coyote Creek Parkway, Guadalupe River Park and Trail, Butterfield Overland National Historic Trail, and Ryland Parkway. The closures could indirectly spur an increase in the use of nearby, uncompromised recreational areas and trails.

However, the Project's phased construction cycle would prevent each of these recreational resources from having simultaneous limitations or closures. Because of the Project's abundance of recreational areas and trails in the 0.5-mile Project radius and the relatively short construction time frame, a temporary increase in the use of nearby parks and trails is unlikely to cause substantial physical deterioration.

Upon installation of the underground transmission lines, the road surface would be restored to its approximate preconstruction condition, and Coyote Ranch Road would be repaved, improved, and realigned in accordance with the easement to be negotiated with the Santa Clara County Parks Department; therefore, access to adjacent trails would be restored.

The Metcalf to Grove 500 kV transmission line would be constructed underground within a 0.02-mile section of Coyote Creek Trail, east of the proposed Grove HVDC Terminal. The Metcalf to Grove 500 kV Transmission Line would also lie adjacent to an approximately 0.8-mile segment of Coyote Creek Trail, causing a 0.5-mile section of the trail to be shifted 240 to 540 feet north of its current location. This new trail alignment would lie along Coyote Ranch Road.

In line with **APM REC-2**, *Trail Safety Crossing Measures*, LSPGC's construction contractor would provide a crossing guard as needed during periods of active construction along the 0.8-mile segment of Coyote Creek Trail. If a trail closure were required during construction, LSPGC would implement the Coyote Creek Trail detour route identified in the Trail Management Plan. In accordance with **APM REC-1**, *Trail Management Plan*, LSPGC would coordinate with the city of San José, Santa Clara County, and the National Park Service for the preparation of the Project's Trail Management Plan. The Trail Management Plan would identify detour routes, if required, as well as provide trail-specific traffic control and safety measures for recreational users.

Closures of one portion of Coyote Creek Trail could increase the use of other areas of the trail. However, any affected areas would be restored to their preconstruction conditions, as per **APM REC-3**, *Trail Restoration*, and it is unlikely this increase in usage would contribute to significant degradation of the trail given the temporary and relatively short construction period, as well as the abundance of recreational trails available in the surrounding area. Consequently, construction of the Project would not increase the use of existing neighborhood and regional parks or other recreational areas such that substantial physical deterioration would occur or be accelerated. Therefore, with the implementation of LSPGC's APMs, Project construction impacts would be **less than significant**.

Operation and Maintenance

Once operational, there would be no closures of recreational facilities or lands used for recreational purposes, except in limited circumstances where public safety consideration necessitate repairs, such as replacing a pole or repairing other equipment. Emergency repairs may also be required in response to emergency situations, such as damage resulting from high winds, storms, fires, other natural disasters, and accidents. These repairs could involve replacing downed structures or lines, or re-stringing conductors, which may be needed at any time. CPUC General Order 165 requires that subtransmission overhead facilities be inspected at least once per year. Therefore, it is unlikely that Project operation and maintenance would result in any impact on recreational facilities or cause substantial deterioration.

Although the Project would accommodate planned growth, it would not directly increase the demand for existing recreational facilities. The increased use of recreational facilities is typically associated with substantial population growth or a substantial reduction in the availability of existing parks or other recreational facilities. The Project would not result in any population growth within the area, as described in Section 3.14, *Population and Housing*. Consequently, Project operation and maintenance would not 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. Therefore, the impacts during Project operation and maintenance would be **less than significant**.

Mitigation: None required.

Criterion b) Whether the Project would include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The Project would not 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 Metcalf to Grove 500 kV transmission line would be constructed along an approximately 0.8-mile section of Coyote Creek Trail within the Coyote Creek Parkway, as discussed in Section 3.16.1, *Environmental Setting.* Approximately 0.5 mile of the trail would be relocated 240 to 540 feet away from Coyote Creek, in part due to frequent floods and closures in this portion of the trail. Additionally, the Metcalf to Grove transmission line would be constructed underground within a 0.02-mile section of Coyote Creek Trail east of the Grove HVDC Terminal site. In accordance with APM REC-3, the affected area of the trail would be restored to its preconstruction conditions after Project construction, and no construction or expansion of recreational facilities would occur as a result.

Recreational facilities are not included as components of the Project, and the Project would not necessitate the construction of additional recreational facilities. As discussed in Section 3.14, *Population and Housing,* the Project would not indirectly induce a substantial population growth or unplanned population growth. Therefore, the Project would not require the construction or expansion of additional recreational facilities, and no impact would occur**.**

Mitigation: None required.

Criterion c) Whether the Project would reduce or prevent access to a designated recreational facility or area.

Impact 3.16-2: The Project would not reduce or prevent access to a designated recreational facility or area. (*Less-than-Significant Impact*)

Construction

As depicted in Table 3.16-1 and Figure 3.16-1, multiple recreational areas are located within the 0.5-mile Project buffer, with some located directly within or adjacent to the Project transmission line alignments. Coyote Creek Parkway and Trail, as well as the Butterfield Overland National Historic Trail, would be located adjacent to the proposed Grove HVDC Terminal. Construction of the Metcalf to Grove 500 kV Transmission Line would impact 0.82 mile of Coyote Creek Trail. A 0.02-mile segment of the trail adjacent to the Grove HVDC Terminal would be temporarily closed during construction to maintain public safety. Another 0.8-mile segment of Coyote Creek Trail would lie adjacent to the Metcalf to Grove 500 kV Transmission Line alignment, and access to this portion of the trail could be temporarily reduced during construction. Construction of both

the Metcalf to Grove 500 kV Transmission Line and the Grove HVDC Terminal could temporarily reduce access to the Butterfield Overland National Historic Trail. However, there is an abundance of other trails within the 0.5-mile Project buffer that would remain unaffected by construction and be open for recreational use.

LSPGC would implement APM REC-1 to help ensure the Trail Management Plan identifies detour routes and trail-specific traffic control and safety measures if areas of the trails are restricted during construction. In accordance with APM REC-2, LSPGC's construction contractor would provide either a crossing guard or a detour route to maintain access to Coyote Creek Trail. Additionally, LSPGC would implement APM TRA-1 to guide traffic and provide safe passage for those seeking use of the trails situated adjacent to the proposed Grove HVDC Terminal. In accordance with APM REC-2, LSPGC would provide either a detour route or, if access is deemed safe, a crossing guard for the 0.8-mile section of Coyote Creek Trail and any portion of the Butterfield Overland National Historic Trail that would be directly affected by construction.

Cesar Chavez Park, Parque de los Pobladores, Cadwallader Park, Santa Clara County Fairgrounds, and Coyote Creek Parkway and Trail would all be located adjacent to the Grove to Skyline 320 kV transmission line, while the Butterfield Overland National Historic Trail would be located directly within the alignment. However, the transmission line would be constructed underground within the existing paved roadway, and the Butterfield Overland National Historic Trail is currently located along Monterey Road, which travels through an already heavily developed, urban area. Although lane closures are likely to occur along Monterey Road that could temporarily reduce or hinder access to the Butterfield Overland National Historic trail and the other recreational resources that lie adjacent to Monterey Road, LSPGC would implement APM TRA-1, and prepare a Traffic Control Plan to aid in guiding traffic and potentially providing detours as needed. Adherence to this APM would help ensure that access to recreational trails and facilities is maintained during construction.

Guadalupe River Park and Trail would be located directly adjacent to the Skyline HVDC Terminal, although construction of the Project would be restricted to an area east of the trail. Ryland Parkway Trail would also be located adjacent to the Skyline HVDC Terminal site. Construction could, therefore, temporarily reduce access to these trails. According to Chapter 2, Section 2.9.3, *Construction Traffic,* although some disruption to traffic flow may occur when trucks ingress or egress from the access roads, such events would be periodic and temporary. Signage, flaggers, or other traffic control measures would be used to reduce potential disruptions to traffic flow and to maintain public safety during construction. Additionally, any road closures would comply with APM TRA-1, and LSPGC would prepare a Traffic Control Plan to provide detour routes and other safety measures, such as signage, barriers, and traffic control personnel, to help ensure access to the adjacent trails is maintained during construction.

As listed in Table 2-4, *Proposed Staging Areas*, the Project includes 12 potential options for temporary construction staging areas located along the Project's transmission line alignments, terminal sites, and substation sites. The Santa Clara County Fairgrounds are listed as a proposed staging area with Monterey Road as its access road. According to Chapter 2, Section 2.8.7, *Public Safety and Traffic Control,* high-voltage direct current (HVDC) terminal construction and staging

areas would be fenced to restrict public access to each site. Public access restrictions would vary from a few days or weeks for trenching operations to many months or years for staging areas. However, access restrictions would be temporary, and staging areas would be returned to their pre-Project conditions upon completion of Project construction, in accordance with **APM AES-1**, *Maintenance of Construction Areas*. Additionally, the phased construction schedule would limit recreational facilities from being restricted simultaneously, and there is an abundance of recreational areas and facilities that would remain open to the public within the 0.5-mile Project buffer. As discussed, Project construction would temporarily prevent access to recreational areas or facilities; however, with implementation of LSPGC's APMs, Project construction impacts would be **less than significant**.

Operation and Maintenance

Project operation and maintenance activities would not change, reduce, or prevent access to designated recreational resources or areas outlined in Table 3.16-1 and Figure 3.16-1. The majority of the proposed transmission lines would be constructed underground, and affected recreational trails would be restored to their approximate preconstruction conditions in accordance with APM REC-3. The closure of recreational facilities would not be required once the Project facilities become operational, except in rare instances where repairs are required. Additionally, the HVDC terminal sites would be operated remotely. Therefore, Project operation and maintenance would constitute a **less-than-significant** impact on recreational resources.

Mitigation: None required.

Criterion d) Whether the Project would substantially change the character of a recreational area by reducing the scenic, biological, cultural, geological, or other important characteristics that contribute to the value of recreational facilities or areas.

The Project would not substantially change the character of a recreational area by reducing the scenic, biological, cultural, geological, or other important characteristics that contribute to the value of recreational facilities or areas. (***No Impact***)

Although the Project would result in impacts on biological, cultural, and geological resources, those impacts would not rise to the level that would substantially change the character of a recreational facility or area. For a discussion of the Project impacts relative to aesthetic, biological, cultural, and geological resources, see Sections 3.1.9, 3.4.6, 3.5.8, and 3.7.5, respectively.

Construction

The Metcalf to Grove 500 kV transmission line would be constructed within a 0.8-mile section of Coyote Creek Trail within the Coyote Creek Parkway, and approximately 0.5 mile of the trail would be shifted north, away from Coyote Creek, as discussed previously. As discussed under Impact 3.4-5, approximately 30 trees may be removed for the proposed Coyote Creek Road and Coyote Creek trail realignment, as well as to construct the transmission lines and implement the horizontal directional drilling under Coyote Creek for the Metcalf to Grove 500 kV Transmission Line. However, this would not represent a substantial change in the character of the trail, as it would occur along a relatively small portion of it. The new transmission line alignment for this

segment of the trail would be constructed along the existing alignment for Coyote Ranch Road. Overall, this shift would not induce a substantial change in the character of the trail as no scenic, biological, cultural, or geological characteristics would be substantially or permanently reduced by the shift.

The Metcalf to Grove 500 kV Transmission Line would also be constructed underground within a 0.02-mile section of Coyote Creek Trail. In accordance with APM REC-3, any temporary disturbances to Coyote Creek Trail that occur during Project construction would be mitigated by LSPGC, and the trail would be restored to its approximate preconstruction conditions. Therefore, construction of the underground Metcalf to Grove 500 kV Transmission Line would not permanently induce any substantial change to the character of the trail or reduce its scenic, biological, cultural, or geological characteristics to a significant extent. Proper surveying and monitoring procedures of sensitive historical, archaeological, or geological resources would be implemented, as discussed in Sections 3.5 and 3.7. Although Project construction would involve the presence and use of equipment and materials that could interfere with the visual quality or enjoyment of recreational resources, the impacts would be temporary, as described in Section 3.1, *Aesthetics*.

Although construction may temporarily introduce visually unappealing equipment and structures to the visual landscape of adjacent recreational facilities and result in temporary increases in noise and dust, these changes would not be permanent. Upon completion of construction, the construction equipment would be removed, and excess noise and dust from construction equipment would cease. Construction activities associated with the transmission lines would progress in a generally linear fashion, with construction activities only occurring for a relatively brief period at a particular location. Adherence to all federal, state, and local regulations, coordination with proper agencies, and LSPGC's implementation of applicable APMs and mitigation measures as outlined in Sections 3.1, *Aesthetics*, 3.4, *Biological Resources*, 3.5, *Cultural Resources*, and 3.7, *Geology, Soils, and Paleontological Resources*, would help ensure that the physical and biological characteristics of the Project area would not be substantially affected during construction. Therefore, **no impact** would occur**.**

Operation and Maintenance

The scenic characteristics of surrounding recreational areas would not be substantially altered during Project operation and maintenance. Although some industrial elements would be brought into the visual landscape, the Project would be primarily located in an area that is already heavily developed, and the Project would be sited within an existing regional transmission system. Additionally, as noted in Chapter 2, *Project Description,* the Project's underground transmission lines are sited almost exclusively within existing public roadways. Therefore, the existing roads where the Project would be located, and adjoining roads, would primarily be used for operation and maintenance access. Scenic views would remain largely unobstructed, and the characteristics of recreational resources would not be substantially diminished.

As discussed in Impact 3.4-7, sensitive biological areas would be avoided during operation and maintenance, and the Project would have a less-than-significant impact on biological resources. Ground disturbance during operation and maintenance would not occur at depths exceeding those

during construction, and therefore, there would be no impact on cultural or geological resources during operation and maintenance. Consequently, recreational areas that have such resources would not be substantially affected during operation and maintenance. Therefore, **no impact** would occur.

Mitigation: None required.

Criterion e) Whether the Project would damage recreational trails or facilities.

Impact 3.16-3: The Project could damage recreational trails or facilities. (*Less-than-Significant Impact*)

Construction of the Metcalf to Grove 500 kV transmission line would directly impact a 0.02-mile section of Coyote Creek Trail. Additionally, the transmission line would be located adjacent to a 0.8-mile section of Coyote Creek Trail, and construction could result in temporary damage. In accordance with APM REC-3, any disturbances to Coyote Creek Trail caused by Project construction would be repaired by LSPGC, and the trail would be restored to its approximate preconstruction conditions. With the implementation of APM REC-3, impacts during Project construction would be less than significant.

The Project would require additional operation and maintenance activities to inspect, repair, and maintain its infrastructure. However, these operation and maintenance activities would not occur frequently or require the closure or alteration of recreational facilities. These operation and maintenance activities could occasionally create access limitations for nearby recreational facilities. The impact related to alteration of trails because of occasional minor access limitations to maintain the right-of-way, transmission lines, structures, and other Project components would be less than significant.

The Project includes two new permanent access roads, which would provide access to each HVDC terminal. The existing and primary access to the proposed Skyline HVDC Terminal for both construction and operation and maintenance would be Santa Teresa Street and Ryland Street. One new terminal access road would be constructed at the Skyline HVDC Terminal site to connect the existing roadway to the terminal facility's perimeter wall. However, no recreational facilities or trails would be altered or otherwise disturbed by the construction of this new access road.

Similarly, the existing and primary access to the proposed Grove HVDC Terminal for construction and operation and maintenance would be Monterey Road. The other new terminal access road would be constructed to connect Monterey Road with the terminal facility's perimeter wall and gate. No recreational facilities or trails would be damaged by the construction of this new access road. No new access roads would be required for construction or operation and maintenance tasks related to the Grove to Skyline 320 kV and Metcalf to Grove 500 kV Transmission Lines, as they are underground and sited almost exclusively within existing public roadways. The roads where the Project is located, as well as their adjoining roads, would be used for both construction and operation and maintenance access to the transmission lines, as stated in Chapter 2, *Project*

Description. Consequently, the terrain of neighboring and adjacent recreational areas and trails outlined in Table 3.16-1 would not be altered or otherwise disturbed. Therefore, the impacts associated with Project construction and operation and maintenance related to alteration or damage of recreational areas and trails would be **less than significant**.

Mitigation: None required.

3.16.6 Cumulative Effects Analysis

The geographic scope for the cumulative impacts associated with the use of recreational resources includes the area surrounding the Project sites and alignments within a 0.5-mile radius. The geographic scope for the cumulative impacts associated with preventing access to designated recreational facilities is the area where both the Project and cumulative project(s) would block access to a designated recreational facility. The geographic scope for the cumulative impacts associated with altering the character of a recreational area is the area where both the Project and cumulative project(s) may be visible from a recreational resource. This analysis assumes full build-out of the projects listed in Section 3.0.3.1, *Cumulative Effects Approach.* Because decommissioning would not be part of the Project, the temporal scope for analysis of cumulative effects would be permanent. The projects listed in Table 3.0-1, *Cumulative Projects List*, primarily include residential and mixed-use development projects. These projects, as well as other future developments, would be subject to the applicable city and/or county planning processes and state environmental review on a project-by-project basis.

3.16.6.1 Criterion a)

Impact C.3.16-1: The Project would not cumulatively increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. (*Less than Significant*)

The ongoing environmental effects of park use resulting from past projects are reflected in the baseline environmental conditions. As explained in Section 3.16.4, *Significance Criteria*, projects can increase the use of area parks and other recreational facilities by increasing demand and by displacing use from one facility to another. These would include residential projects in the cumulative scenario, such as Westbank Terraine, Tamien Residential, and Blossom Hill Signature. The combined impacts of these and similar projects in the cumulative scenario, together with the incremental impacts of the Project, would not cause substantial physical deterioration of existing parks and recreational facilities in the Project area to occur or be accelerated such that a significant cumulative impact would result, in part because the specific and general plans in the cumulative effects area include the development of new parks and recreational amenities to serve new residents. Furthermore, the Project's incremental contribution to a cumulative impact would not be cumulatively considerable because of the limited duration of any potential restriction to access and because APM REC-3 stipulates that trails temporarily disturbed by Project activities shall be restored to approximate preconstruction conditions; therefore, recreational facilities would be returned substantially to their preconstruction state at the conclusion of construction. The implementation of LSPGC's APM REC3 and the avoidance

of the Project's short-term impacts would help ensure that any residual incremental impact would not be cumulatively considerable.

Additionally, although the Project would deliver electricity to accommodate planned energy demand and population growth, it would not directly increase the demand for recreational facilities. Therefore, construction of the Project would not increase the use of existing neighborhood and regional parks or other recreational facilities to the extent that substantial physical deterioration of the facility would occur or be accelerated.

Mitigation: None required.

3.16.6.2 Criterion b)

The Project, in combination with the cumulative projects, would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. (*No Impact*)

As discussed previously, the Project would have no impact pertaining to the proposed construction or expansion of recreational facilities because the Project does not include recreational facilities. Therefore, the Project would not cause or contribute to any cumulative impact related to this criterion.

3.16.6.3 Criterion c)

Impact C.3.16-2: The Project would not cumulatively reduce or prevent access to a designated recreational facility or area. (*Less than Significant*)

As discussed previously, Project construction would require temporary, partial closures of designated recreational facilities for public safety purposes. These closures would be temporary and limited to the time frame needed to safely install poles, string the transmission line, and secure the associated components.

As discussed under Impact 3.16-3, LSPGC would implement APM REC-1 to help ensure the Trail Management Plan identifies detour routes and trail-specific traffic control and safety measures if areas of recreational trails are restricted during construction. LSPGC would also implement APM REC-2 and APM TRA-1 to provide either a crossing guard or a detour route to maintain access to Coyote Creek Trail and to guide traffic and provide safe passage for those seeking use of the trails situated adjacent to the proposed Grove HVDC Terminal. Project operation and maintenance activities would not change, reduce, or prevent access to designated recreational resources or areas outlined in Table 3.16-1 and Figure 3.16-1. The majority of the new transmission lines would be constructed underground, and the disturbed area would be restored to approximate preconstruction conditions.

Though the temporary closure of some recreational facilities, trails, or bicycle trails could, in combination with construction activities associated with the cumulative projects, result in further reductions in access to designated recreational facilities or areas, the combined impacts would not be cumulatively considerable. With LSPGC's implementation of APM TRA-1, APM REC-2, and

APM REC-1, the Project's incremental impacts would not rise to the level of being cumulatively considerable. Thus, cumulative impacts related to temporarily reducing or preventing access to a designated recreational facility or area would be **less than significant**.

Mitigation: None required.

3.16.6.4 Criterion d)

The Project would not cumulatively substantially change the character of a recreational area by reducing the scenic, biological, cultural, geological, or other important characteristics that contribute to the value of recreational facilities or areas. (***No Impact***)

As discussed previously, the Project would have no impact pertaining to a substantial change in the character of a recreational area by reducing the scenic, biological, cultural, geological, or other important characteristics that contribute to the value of recreational facilities or areas. Therefore, the Project would not cause or contribute to any cumulative impact related to this criterion.

3.16.6.5 Criterion e)

Impact C.3.16-3: The Project would not cumulatively damage recreational trails or facilities. (*Less than Significant*)

As discussed previously, the Project could temporarily affect recreational trails and restrict access to parks. During Project construction, portions of Coyote Creek Trail could be temporarily affected. As discussed under Impact 3.16-5, in accordance with APM REC-3, any disturbances to Coyote Creek Trail caused by Project construction would be repaired by LSPGC, and the trail would be restored to its approximate preconstruction conditions.

Additionally, although the Project would conduct operation and maintenance activities to inspect, repair, and maintain the Project's infrastructure, these operation and maintenance activities would occur infrequently and would not require the closure of recreational facilities or result in damage to these facilities. Although other projects in the area may result in damage to recreational facilities, any damage resulting from the Project would be temporary and restored to approximate preconstruction conditions. Therefore, with the implementation of LSPGC's APM REC-3, the Project would not contribute to any cumulatively considerable impacts, and this cumulative impact would be **less than significant**.

Mitigation: None required.

3.16.7 References

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3.17 Transportation

This section evaluates the impacts of the Project related to transportation. It presents information about the environmental and regulatory settings and identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

The CPUC received scoping comments from a member of the public and from the California Department of Transportation (Caltrans) pertaining to transportation. A member of the public expressed concern that the temporary closure of Coyote Creek Trail would force bicyclists to use alternate routes lacking bicycle facilities and posing safety risks due to high traffic speeds.

Caltrans suggested that potential impacts on the state right-of-way from Project-related temporary access points should be analyzed. Caltrans noted that the Project would likely require an encroachment policy exception for the portion of the PG&E water line crossing Caltrans right-of-way and described the associated formal permit submittal process.

Additionally, Project work that entails the movement of oversized or excessive load vehicles on state roadways would require a transportation permit issued by Caltrans. Caltrans also noted that before construction, coordination may be needed to develop a transportation management plan to reduce construction traffic impacts on the state transportation network. The comment letter references and includes regulatory requirements and guidance for best practices specific to Caltrans. Copies of all scoping letters are provided in **Appendix A**, *Scoping Report*.

3.17.1 Environmental Setting

3.17.1.1 Roadway Network

The regional transportation system in the Project area is facilitated by U.S. Highway 101 (U.S. 101), Interstate (I-) 880, Interstate 680 (I-680), Interstate 280 (I-280), State Route (SR-) 130, SR-87, and SR-85. The proposed Skyline high-voltage direct current (HVDC) Terminal is approximately 1 mile south of SR-87, 2 miles east of U.S. 101, and 1.3 miles north of I-280. The proposed Grove HVDC Terminal is 0.2 mile west of U.S. 101. U.S. 101 generally runs parallel to the Grove to Skyline 320-kilovolt (kV) direct current transmission line (Grove to Skyline 320 kV Transmission Line) and the Metcalf to Grove 500 kV alternating current (AC) transmission line (Metcalf to Grove 500 kV Transmission Line). The 100-foot Skyline to San Jose B 230 kV AC overhead transmission tie line (Skyline to San Jose B 230 kV Transmission Tie Line) alignment is located between the proposed Skyline HVDC Terminal and the existing PG&E San Jose B Substation.

The local transportation system in most of the Project area consists of local roads maintained by the city of San José, and roads located in the unincorporated Santa Clara County portion of the Project are maintained by Santa Clara County. The primary access roads to the proposed Skyline HVDC Terminal and existing PG&E San Jose B Substation would be the existing Santa Teresa Street and Ryland Street. Santa Teresa Street and Ryland Street are both two-lane, approximately 30-foot-wide, public paved roads providing access to the proposed Skyline HVDC Terminal site

via Coleman Avenue from the SR 87 interchange with Taylor Street. The primary access roads to the proposed Grove HVDC Terminal would be the existing Monterey Road via Bailey Avenue from U.S. 101. At this location, Monterey Road is an 80-foot-wide, four lane, public paved, divided road.

As indicated in Chapter 2, *Project Description*, the Project's proposed underground transmission lines (i.e., proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV Transmission Line) would be sited within existing public roadways, and roads along these portions of the transmission lines and adjoining roads would be used for construction and operational access. At its northern end, the proposed Grove to Skyline 320 kV Transmission Line would extend primarily along Bassett Street, Terraine Street, Devine Street, Market Street, First Street, and Monterey Road. Then, most of the proposed Grove to Skyline 320 kV Transmission Line runs along Monterey Road and would be in the vicinity of arterial roadways, including Blossom Hill Road, West Capitol Expressway (County Route G21), and Santa Clara Street.

The proposed Metcalf to Grove 500 kV Transmission Line would be located within Coyote Ranch Road, and 0.2 mile of the line would traverse undeveloped and natural areas in Santa Clara County. The proposed Skyline to San Jose B 230 kV Transmission Tie Line would be accessible using the same roads identified for the proposed Skyline HVDC Terminal (e.g., Coleman Avenue from the SR-87 interchange with Taylor Street).

Access to the existing PG&E Metcalf Substation, including the substation modification area, would be Metcalf Road and Coyote Ranch Road.

The Project includes 12 potential temporary construction staging areas located along the Project's proposed transmission lines, terminal sites, and substation sites. In addition to the temporary construction staging areas, the Project would include limited construction staging and equipment parking on city streets along the alignment for the proposed Grove to Skyline 320 kV Transmission Line. Access from the potential construction staging areas to the Project alignment and terminals would be on existing public roadways. **Table 3.17-1**, *Proposed Staging Areas Access Points,* identifies the locations of the proposed staging areas and their access points.

3.17.1.2 Pedestrian and Bicycle Facilities

Public access is not currently provided to the existing PG&E San Jose B and PG&E Metcalf substations and the proposed Grove and Metcalf HVDC Terminal sites. Pedestrian facilities in the Project area include the Guadalupe River Trail, located immediately east of the existing PG&E San Jose B Substation and the proposed Skyline HVDC Terminal, along with sidewalks on adjacent roads, including Coleman Avenue, Santa Teresa Street, and Ryland Street. The proposed Skyline to San Jose B 230 kV Transmission Tie Line would be located within the proposed Skyline HVDC Terminal and the existing PG&E San Jose B Substation, and would not cross any roads or parallel pedestrian or bicycle facilities. The proposed Metcalf to Grove 500 kV Transmission Line would primarily follow Coyote Ranch Road, which is partially paralleled by the off-street, developed Coyote Creek Trail. No other pedestrian facilities exist along the roadway, except for a single dedicated sidewalk along Metcalf Road adjacent to the existing PG&E Metcalf Substation.

TABLE 3.17-1
PROPOSED STAGING AREAS ACCESS POINTS

No.	Location	Access[1]
1	Grove HVDC Terminal	Monterey Road
2	PG&E Metcalf Substation	Coyote Ranch Road
3	PG&E Metcalf Substation	Coyote Ranch Road
4	Bernal Road and SR-85	Bernal Road or the SR-85 entrance ramp
5	4310 Monterey Road	Monterey Road
6	Santa Clara County Fairgrounds	Monterey Road
7	1675 Monterey Road	Monterey Road
8	Alma Avenue	Alma Avenue
9	185 West Humboldt Street	Keyes Street
10	217 Delmas Avenue	Delmas Avenue, San Carlos Street, Sonoma Street, or Park Avenue
11	323 Terraine Street	Terraine Street or Bassett Street
12	Skyline HVDC Terminal	Ryland Street

NOTES:HVDC = high-voltage direct current; PG&E = Pacific Gas and Electric Company; SR = State Route
1. Access from the potential construction staging areas to the Project alignment and terminals would be via existing public roadways.
SOURCE: LSPGC 2025

Pedestrian facilities along the proposed Grove to Skyline 320 kV Transmission Line vary by location. Pedestrian facilities are located within the portion of the alignment that runs along Bassett Street, Terraine Street, and Devine Street, including sidewalks and crosswalks that provide safe and accessible pathways for pedestrians. Market Street and First Street are similarly equipped with sidewalks, curb ramps, and crosswalks. South of Alma Avenue, First Street transitions into Monterey Road, which continues for approximately 10.5 miles along the proposed Grove to Skyline 320 kV Transmission Line. Although some pedestrian facilities exist along Monterey Road, many segments between Alma Avenue and Metcalf Road lack continuous sidewalks and safe crossings. No pedestrian facilities exist along Monterey Road from Metcalf Road to the proposed Grove HVDC Terminal.

Bicycle facilities in all Project area jurisdictions are classified as Class I, Class II, or Class III facilities, as defined by the state in Streets and Highways Code Section 890.4. Class I facilities are bike paths with exclusive right-of-way for use by bicyclists or pedestrians. Class II facilities are bike lanes striped with the paved areas of roadways and established for the preferential use of bicycles. Class III facilities are signed bike routes that allow bicycles to share streets or sidewalks with vehicles or pedestrians (Santa Clara County 2018).

Bicycle facilities exist near or adjacent to the Project site. A Class III bike lane exists at the corner of the proposed Skyline HVDC Terminal and east of the existing PG&E San Jose B Substation along Ryland Street and Santa Teresa Street. An off-street, multiuse path for pedestrians and bicyclists exists along the Guadalupe River Trail immediately east of the existing PG&E San Jose B Substation and the proposed Skyline HVDC Terminal. A Class II bike lane exists immediately north of the existing PG&E San Jose B Substation along Coleman Avenue. The Coyote Creek Trail is a paved, multiuse path for pedestrians and bicyclists, which partially parallels Coyote Ranch

Road and the proposed Metcalf to Grove 500 kV Transmission Line. A Class II bike lane exists along Monterey Road, southwest of the proposed Grove HVDC Terminal. This bike lane is approximately 0.1 mile southeast of the existing PG&E Metcalf Substation and 0.2 mile from the proposed Metcalf to Grove 500 kV Transmission Line.

Various classifications of bike lanes exist along most of the proposed Grove to Skyline 320 kV Transmission Line. The alignment follows Market Street in Downtown San José, where a Class II bike lane spans for 0.3 mile between St. John Street to San Fernando Street. A Class III bike lane spans First Street for 0.1 mile from Virginia Street to Oak Street, transitioning to a Class II bike lane for 0.5 mile from Oak Street to Alma Avenue. At the intersection of Alma Avenue and First Street, the route then becomes Monterey Road, where a Class II bike lane continues uninterrupted for the remaining 10.5 miles of the proposed Grove to Skyline 320 kV Transmission Line (Santa Clara County 2024).

3.17.1.3 Transit Facilities

Santa Clara Valley Transportation Authority (VTA) provides bus and light rail services throughout Santa Clara County, including the communities of Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Palto Alto, San José, Santa Clara, Saratoga, and Sunnyvale.

The closest bus stations to the Project area provided by VTA are the Saint James Station, approximately 0.5 mile east of the proposed Skyline HVDC Terminal, and the Santa Teresa Station, 2.4 miles northwest of the existing PG&E Metcalf Substation. The closest access to VTA for the Project are the bus stop at 1st Street and Bassett Street, 0.3 mile northeast of the proposed Skyline HVDC Terminal, and the bus stop at Santa Teresa Boulevard and Laguna Avenue, 1.6 miles south of the proposed Grove HVDC Terminal (Santa Clara County 2025).

The California High-Speed Rail Authority, Caltrain, VTA, Metropolitan Transportation Commission, and the city of San José provide trains, buses, and light rail services that currently serve the San José Diridon Station. The San José Diridon Station is a key transit hub at the western edge of Downtown San José. The San José Diridon Station is located 0.6 mile southwest of the proposed Skyline HVDC Terminal (City of San José 2024b).

No transit facilities exist along the proposed Skyline to San Jose B 230 kV Transmission Tie Line and the proposed Metcalf to Grove 500 kV Transmission Line. However, various facilities exist along the proposed Grove to Skyline 320 kV Transmission Line. Six VTA bus stops exist along the proposed Grove to Skyline 320 kV Transmission Line along First Street/Monterey Road. Caltrain provides commuter rail service along the San Francisco Peninsula, through the South Bay to the cities of San José and Gilroy. Two Caltrain stops exist along Monterey Road along the proposed Grove to Skyline 320 kV Transmission Line. See **Table 3.17-2**, *Transit Facilities Along the Grove to Skyline 320 kV DC Transmission Line Alignment*, for further details on the transit facilities that exist along this alignment.

TABLE 3.17-2
TRANSIT FACILITIES ALONG THE GROVE TO SKYLINE 320 KV DC TRANSMISSION LINE ALIGNMENT

Location/Bus Stop	Bus/Train Route	Facility Type
1st and Keyes/Goodyear	Rapid 568 (N/S), Route 25 (E/W) Route 68 (N/S), Route 66 (N/S)	Bus stop
Monterey and Curtner/Tully	Rapid 568 (N/S), Route 26 (E/W), Route 56 (N/S), Route 68 (N/S), Route 66 (N/S)	Bus stop
Monterey and Senter	Rapid 568 (N/S), Route 42 (E/W), Route 68 (N/S), Route 66 (N/S), Route 70 (E/W), Route 72 (E/W), Route 73 (E/W)	Bus stop
Monterey and Branham	Route 72 (N/S), Route 73 (N/S)	Bus stop
Monterey and Chynoweth/Roeder	Rapid 568 (N/S), Route 68 (N/S)	Bus stop
Monterey and Flintwell	Rapid 568 (N/S)	Bus stop
3400 Monterey Hwy., San José, CA	South County Connector (N): 805, 807, 809, 811 South County Connector (S): 814, 816, 820, 822	Capitol Caltrain Station
5560 Monterey Road, San José, CA	South County Connector (N): 805, 807, 809, 811 South County Connector (S): 814, 816, 820, 822	Blossom Hill Caltrain Station

NOTES: CA= California; DC = direct current; kV = kilovolt; N = Northbound; S = Southbound; E = Eastbound; W = Westbound
SOURCE: Caltrain 2025, VTA 2025a, and VTA 2025b

3.17.2 Regulatory Setting

3.17.2.1 Federal

No federal regulations related to transportation are applicable to the Project.

3.17.2.2 State

Public Resources Code Section 21099

Public Resources Code Section 21099 directs CEQA lead agencies to analyze traffic impacts using vehicle miles traveled (VMT) as the standard. The shift from Level of Service to VMT aims to reduce GHG emissions by creating multimodal transportation networks and promoting diverse land uses to reduce VMT. Transportation impact measurements may include "vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated."

California Department of Transportation

Caltrans has jurisdiction over state highways and sets maximum load limits for trucks and safety requirements for oversized vehicles that operate on highways. Santa Clara County is under the jurisdiction of Caltrans District 4. The following Caltrans regulations apply to the Project's potential transportation and traffic impacts:

> ***California Vehicle Code, Division 15, Chapters 1–5, Size, Weight, and Load.*** Includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways.

California Streets and Highways Code, Sections 660–711 and 670–695. Requires permits from Caltrans for any roadway encroachment during truck transportation and delivery, includes regulations for the care and protection of state and county highways and provisions for the issuance of written permits, and requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.

3.17.2.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to transportation that would otherwise be relevant to the Project and alternatives are described below.

Santa Clara County General Plan

The Santa Clara County General Plan (Santa Clara County 1994) includes the following relevant policies to reduce or avoid transportation impacts:

Policy C-TR 1: Santa Clara County should develop and maintain an adequate, balanced, and integrated transportation system that is affordable and convenient to use and that is capable of meeting projected future demand.

Policy C-TR 2: An adequate transportation system for Santa Clara County should be considered essential for improving overall quality of life, including:

a) Continued economic development and increased living standards;

b) Enhanced environmental quality; and

c) Improved livability of urbanized areas.

Policy C-TR 3: In order to safeguard future mobility and achieve other transportation-related goals and objectives stated in the Vision of the General Plan, the following set of coordinated strategies should guide decision-making and implementation efforts on a sub-regional basis:

a) Develop urban land use patterns that support travel alternatives;

b) Manage travel demand, system operation, and congestion levels;

c) Expand system capacity and improve system integration; and

d) Support new transportation technologies.

Policy C-TR 9: Transportation Demand Management (TDM) measures should be employed to make more efficient use of existing road and highway capacity by increasing vehicle occupancy and reducing the need for commute and other trips. Such measures primarily include, but are not limited to, the following:

a) Employer-based and school-based ridesharing programs;

b) Vanpooling;

c) Expanded use of flex-time and telecommuting; and

d) Transit subsidies, reduced parking, and other "market: approaches."

Policy C-TR 10: Transportation System Management (TSM) measures should be employed to ensure maximum operating efficiency of the existing system of roads and highways, including but not limited to, the following:

a) Signal synchronization, signal pre-emptions for transit vehicles;

b) Ramp metering; and

c) Traffic surveillance and traffic advisory signs.

Policy C-TR 31: The capacity of the highways and expressways should be increased where necessary to achieve objectives of county transportation plans. Facilitate the implementation of improvements recommended through the Countywide Transportation planning process.

Policy C-TR 35: A bicycle transit system should be provided that is safe and convenient for the user and which will provide for the travel needs of bicyclists.

Policy C-TR 36: Facilities should be provided to make bicycle and pedestrian travel more safe, direct, convenient and pleasant for commuting and other trips to activity centers and to support the use of other commute alternatives.

Policy SC 19.5: The County should proceed to implement its Monterey Road policy in the Coyote Valley to upgrade or abate the existing uses. Careful attention should be given to all uses being considered along Monterey Road in the proposed Coyote Greenbelt area.

Envision San José 2040 General Plan

The *Envision San José 2040 General Plan's* Circulation Element (City of San José 2024a) includes the following relevant policies to reduce or avoid transportation impacts:

Policy TR-1.2: Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects.

Policy TR-1.4: Through the entitlement process for new development, projects shall be required to fund or construct needed transportation improvements for all transportation modes giving first consideration to improvement of bicycling, walking, and transit facilities and services that encourage reduced vehicle travel demand.

Policy TR-1.10: Require needed public street right-of-way dedication and improvements as development occurs. The ultimate right-of-way shall be no less than the dimensions as shown on the Functional Classification Diagram except when a lesser right-of-way will avoid significant social, neighborhood or environmental impacts and perform the same traffic movement function. Additional public street right-of-way, beyond that designated on the Functional Classification Diagram, may be required in specific locations to facilitate left-turn lanes, bus pullouts, and right-turn lanes in order to provide additional capacity at some intersections.

Policy TR-2.8: Require new development where feasible to provide onsite facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.

Policy TR-3.3: As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute toward transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities.

Policy TR-5.1: Develop and maintain a roadway network that categorizes streets according to function and type, considers the surrounding land use context, and incorporates the concepts of "complete streets."

Policy TR-5.3: Development projects' effects on the transportation network will be evaluated during the entitlement process and will be required to fund or construct improvements in proportion to their impacts on the transportation system. Improvements will prioritize multimodal improvements that reduce VMT over automobile network improvements.

- *Downtown*. Downtown San José exemplifies low-VMT with integrated land use and transportation development. In recognition of the unique position of the Downtown as the transit hub of Santa Clara County, and as the center for financial, business, institutional and cultural activities, Downtown projects shall support the long-term development of a world class urban transportation network.

Policy TR-5.5: Require that new development, which includes new public or private streets, connect these streets with the existing public street network and prohibit the gating of private streets with the intention of restricting public access. Furthermore, where possible, require that the street network within a given project consists of integrated short blocks to facilitate bicycle and pedestrian travel and access.

Policy TR- 6.1: Minimize potential conflicts between trucks and pedestrian, bicycle, transit, and vehicle access and circulation on streets with truck travel.

Policy TR-6.2: Maintain primary freight routes that provide for direct access for goods movement to industrial and employment areas.

Policy TR-8.4: Discourage, as part of the entitlement process, the provision of parking spaces significantly above the number of spaces required by code for a given use.

Policy TR-9.1: Enhance, expand, and maintain facilities for walking and bicycling to provide neighborhoods with safe and direct access to transit and key destinations, and particularly to provide neighborhoods with safe and direct access to transit and key destinations, a complete alternative transportation network that facilitates non-automobile trips, and enjoyable outdoor open space.

Policy TR-9.3: Serve as a model city for VMT reduction by implementing programs and policies that reduce VMT for City of San Jose employees.

Policies TR-9.9: Work with developers and employers to monitor developers' and employers' achievement of TDM program measures and explore incentives for successes and/or consider penalties for non-compliance.

Policy TR-9.24: Evaluate the changing patterns to employments and the effect on VMT reduction. Develop strategies to promote flexible work patterns for existing and new developments.

Santa Clara Valley Transportation Authority

The VTA serves three roles in Santa Clara County: primary transit operator, congestion management agency, and regional transportation planning agency. As the transit operator, VTA is responsible for the development, operation, and maintenance of the county's bus and light rail system.

Congestion Management Program

VTA oversees the Congestion Management Program (CMP). State legislation requires all urbanized counties in California to prepare a CMP to obtain their share of gas tax revenues. The CMP legislation requires that each CMP contains the following seven elements, which are outlined in VTA's *2021 Congestion Management Program* (2021):

1) A system definition and traffic Level of Service standard element.
2) A multimodal performance measures element.
3) A transportation demand management and trip reduction element.
4) A land use impact analysis element.
5) A Capital Improvement Program.
6) The development of a countywide transportation model.
7) The development of a Multimodal Improvement Plan.

VTA requires that the impacts of proposed development projects on the CMP system be addressed. VTA's *2021 Congestion Management Program Document* (2021) includes a land use impact analysis element, which aims to do the following:

- Build effective partnerships.
- Increase ridership and support fast, frequent, safe, and reliable transit service.
- Support transit-supportive development near transit.
- Prioritize sustainable travel behavior.

This element considers local jurisdictions' long-range objectives and development projects, including VTA's *Transportation Impact Analysis Guidelines*, as discussed below, to create high-quality built environments that enable multimodal access, support fast and efficient transit operations, and support transit ridership (VTA 2021). As applicable, the Project would be developed in accordance with VTA's CMP.

Transportation Impact Analysis Guidelines

VTA's *Transportation Impact Analysis Guidelines* (TIA Guidelines) presents VTA's guidelines for preparing transportation impact analyses for CMP purposes. These guidelines are intended to be used by Member Agencies as part of their regular process of evaluating land use decisions (VTA 2014a). However, Member Agencies may maintain their own guidelines that supplement the procedures in VTA's TIA Guidelines. Additionally, Member Agencies may have a lower size threshold for when a transportation analysis must be prepared in their jurisdiction (VTA 2014a). These adopted policies and regulations are consistent with VTA's TIA Guidelines. These guidelines

stipulate that projects that generate 100 or more net new trips shall perform a transportation analysis (VTA 2014a).

Valley Transportation Plan

The Valley Transportation Plan (VTP) is the long-term comprehensive multimodal plan developed by VTA that provides policies and programs for transportation in the Santa Clara Valley. The VTP includes roadways, transit, Intelligent Transportation Systems, bicycle, pedestrian facilities, and land use (2014b). The VTP connects projects and programs with anticipated funds and provides a framework for the development and maintenance of the transportation system over the next 25 years (2014b). It considers all travel modes and addresses the links between transportation, land use, air quality, energy use, and community livability (2014b). The VTP is updated approximately every 4 years to coincide with the Bay Area's Regional Transportation Plan update (2014b).

The previous plan, VTP 2040, was adopted in October 2014. Planning for VTP 2050 began in Fall 2022, which will identify priority transportation projects with input received from VTA's Board and Committees, as well as through robust in-person and virtual outreach. VTA states that VTP 2050 was adopted by the Board in Winter 2024, however, the official VTP 2050 plan is not available to the public yet. Therefore, VTP 2040 will be used for the purpose of this analysis (2014b).

Santa Clara Countywide Bicycle Plan

The Santa Clara Countywide Bicycle Plan describes a vision for a countywide network of connected, high-quality bikeways, providing implementation details needed to meet the multimodal goals outlined in the VTP (VTA 2018). Although it focuses primarily on countywide bicycle planning, the Countywide Bicycle Plan provides implementation details to meet VTA's multimodal goals, as outlined in the VTP (VTA 2018).

3.17.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed by LSPGC and PG&E to reduce Project impacts. Each utility company will be responsible for implementing its respective measures for its portion of the Project.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the existing PG&E San Jose B Substation to a splice vault located at the existing PG&E Metcalf Substation. Specifically, at the northern end of the Project, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the existing PG&E San Jose B Substation. At the southern end of the Project, LSPGC's scope would stop at a splice vault located at the western property line of the existing PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Chapter 2, Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the modifications within the existing PG&E San Jose B and PG&E Metcalf substations. At the PG&E San Jose B Substation, PG&E's work would start from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E's work would start from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.17.3.1 Applicant-proposed Measures

LSPGC has developed Applicant-proposed measures (APMs) that are incorporated into LSPGC's components of the Project to reduce potential effects on transportation. The following impact analysis assumes that LSPGC would implement the following APMs as part of its portion of work for the Project.

- **APM TRA-1: Traffic Control Plan.** LSPGC shall prepare a TCP to describe measures to guide traffic (such as signs and workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts. LSPGC shall follow its standard safety practices, including installing appropriate barriers between work zones and transportation facilities, posting adequate signs, and using proper construction techniques. LSPGC shall follow the recommendations regarding basic standards for the safe movement of traffic on highways and streets in accordance with Section 21400 of the California Vehicle Code. As required for obtaining a local encroachment permit, LSPGC shall provide a TCP to the applicable local jurisdictions which shall comply with the U.S. Department of Transportation's (DOT) Manual on Uniform Traffic Control Devices (MUTCD). Construction activities shall be coordinated with local law enforcement and fire protection agencies, as required. Emergency service providers shall be notified, as required by the local permit, of the timing, location, and duration of construction activities.

- **APM TRA-2: Coordinate Bus Closures with Santa Clara VTA.** If required during construction, LSPGC shall coordinate any bus stop closures with the Santa Clara VTA in advance to minimize disruptions to service. Where disruptions to service are anticipated, advanced notice shall be given to allow transit users on affected routes to identify and locate a temporary interim bus stop(s). Measures that may be implemented to give advanced notice of disruptions to service may include, but not necessarily be limited to, posting signage at bus stops with planned closures and posting notices for anticipated route detours and bus stop closures on the Santa Clara VTA website. Identification and implementation of specific measures shall be implemented in coordination with Santa Clara VTA.

- **APM TRA-3: Repair Infrastructure.** LSPGC shall oversee all aspects of construction and shall ensure that contractors repair any damage caused by construction activities. LSPGC shall confer with local agencies as needed to ensure repairs are sufficient and consistent with preconstruction conditions.

3.17.3.2 PG&E Best Management Practices and Field Protocols

PG&E has not proposed any best management practices or field protocols pertaining to transportation within its portion of work for the Project.

3.17.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant transportation impact if it would do any of the following:

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b);

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or

d) Result in inadequate emergency access.

Furthermore, the CPUC has identified additional CEQA impact criteria specific to the types of projects evaluated by the CPUC that are to be considered along with the criteria identified in CEQA Guidelines Appendix G (CPUC 2019). The Project would also result in a significant transportation impact if it would do any of the following:

e) Create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations;

f) Interfere with walking or bicycling accessibility; or

g) Substantially delay public transit.

3.17.5 Direct and Indirect Effects

3.17.5.1 Approach to Analysis

The following analysis uses the criteria from Appendix G of the CEQA Guidelines and the CPUC to identify direct and indirect effects on transportation. For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.17.5.2 Impact Assessment

Criterion a) Whether the Project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Impact 3.17-1: The Project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. (*Less than Significant with Mitigation*)

Construction

Peak construction would be likely to require approximately 250 workers, but the average workforce at a single construction site would be 60 workers. Worker trips are primarily expected

to originate from the Greater Bay Area. Peak vehicle trips would be approximately 500 trips per day, consisting of 300 truck trips and 200 worker trips (see Table 2-9, *Estimated Average Daily Construction Traffic,* for further information on vehicle miles traveled per construction phase).

The Project may affect the circulation system depending on construction progress, schedule, and location of construction work. With respect to location, substation and terminal work would be conducted within properties with no public access and, therefore, would not be a current contributor to the local circulation system. However, to access these construction sites, construction crews would use the local circulation system which would, in effect, involve intermittent, yet consistent use of publicly accessible roads and facilities throughout the Project's alignment. Regardless of where construction is occurring, the movement of construction workers, vehicles, and equipment may temporarily disrupt or impede access to segments of the regional and local circulation system.

Temporary lane closure could also adversely affect the performance of the circulation system, such as streets, pedestrian and bicycle routes, and regional transit routes (see Chapter 2, Section 2.8.2, *Staging and Construction Work Areas*, for information on lane closures). Installation of the proposed transmission lines would require underground construction within a number of public roadways, which could result in direct and indirect disruption to vehicle access, traffic speeds, and street operations. The Project would also be subject to encroachment permits from Caltrans and local jurisdictions, including state permits related to movement of oversized or excessive load vehicles on State roadways.

Although the Project would require the use of slow-moving vehicles and involve temporary lane closures, potentially impacting the regional or local circulation system and related programs, plans, ordinances, or policies, these construction impacts would be limited or temporary. Additionally, LSPGC would implement **APM TRA-1: Traffic Control Plan**, which would require LSPGC to coordinate construction activities with applicable local jurisdictions before construction to minimize traffic congestion, potential vehicular conflicts, and maintain traffic safety. LSPGC would also implement **APM TRA-3: Repair Infrastructure**, which would require LSPGC to repair damage to roads, trails, and bicycle facilities from Project construction activities to pre-existing conditions.

However, even with implementation of APMs, the potential impacts related to this criterion could still be significant as the implementation and reporting requirements, or lack thereof, provided by APM TRA-1 and APM TRA-3 may not result in effectively minimizing or avoiding impacts to a less-than-significant level, especially as defined under CEQA (CEQA Guidelines Section 15126.4[1]).

LSPGC would implement **LSPGC Mitigation Measure 3.17-1a: Implement Coordinated Traffic Control Plan**, which supersedes APM TRA-1, and requires LSPGC, among other requirements, to submit the Project's traffic control plan (TCP) at least 30 days before the issuance of construction or building permits. Additionally, in combination with APM TRA-1, LSPGC Mitigation Measure 3.17-1a would help ensure compliance with the policies outlined in the Santa

[1] CEQA Guidelines Section 15126.4 requires lead agencies to consider feasible mitigation measures to avoid or substantially reduce a project's significant impacts. Specifically, Section 15126.4 requires that mitigation measures must be fully enforceable through permit conditions, agreements, or other legally bindings instruments.

Clara County General Plan, such as C-TR 3 (management of congestion levels), C-TR 10 (requiring maximum operating efficiency of the transportation system), and C-TR 35 and C-TR 36 (safe bicycle and pedestrian travel and a safe transit system). Further, these measures would help ensure compliance with *Envision San José 2040 General Plan* Policy TR-6.1 (minimizing potential conflicts between trucks and pedestrians, bicycle, transit, and vehicle access, and circulation). Furthermore, LSPGC Mitigation Measure 3.17-2a would require LSPGC to consult with Caltrans to reduce Project construction traffic impacts on the State transportation network, in accordance with Caltrans' regulatory requirements and guidance.

Furthermore, LSPGC would implement **LSPGC Mitigation Measure 3.17-1b: Infrastructure Repair Reporting,** which supersedes APM TRA-3 and requires LSPGC to submit a report to the CPUC and other applicable jurisdictions to confirm the repairs within 30 days. These measures would help ensure that roadway conditions are returned to pre-existing conditions, minimize traffic congestion, minimize potential vehicular conflicts, and maintain traffic safety.

Furthermore, these measures would help ensure compliance with the policies outlined in the Santa Clara County General Plan, such as policies C-TR 1 (maintenance of an adequate transportation system), C-TR 35 and C-TR, and SC 19.5 (careful consideration of all uses along Monterey Road in the Coyote Valley). Furthermore, these measures would also help ensure compliance with the *Envision San José 2040 General Plan* policies TR-1.4 (requiring projects to fund transportation improvements), TR-5.3 (requiring projects to fund or construct improvements in proportion to their impacts on the transportation system), and TR-9.1 (regarding the maintenance of facilities for walking and bicycling).

With the implementation of these mitigation measures in combination with LSPGC's APMs, construction-related transportation impacts associated with potential conflicts with relevant federal, state, and local transportation policies, plans, and standards would be reduced to a **less-than-significant** level because LSPGC would be required to conduct the Project in accordance with the TCP and report any necessary repairs to infrastructure temporarily disturbed as a result of construction activities.

Operation and Maintenance

Project operation and maintenance would result in minor impacts on roadways. The Project would not require any on-site staff to operate or maintain the Project facilities. LSPGC would hire one technician to be located in proximity to the Project to perform routine inspections, monitoring, and repairs. Additionally, two other technicians located in California for LSPGC's other projects would assist in the operation and maintenance of the Project facilities if needed. Day-to-day management of the Project would be provided by LSPGC's asset management team from remote control centers.

Therefore, Project operation and maintenance would have a negligible number of associated vehicle trips and would not be likely to result in any noticeable change to traffic conditions on roadways in the Project area vicinity. Project facilities operation and maintenance would not result in a measurable increase in maintenance requirements or additional personnel. Therefore, with respect to vehicle traffic, Project operation and maintenance would be similar to existing conditions.

With consideration of the frequency at which the described staff would visit the Project sites, Project operation and maintenance would be likely to have a negligible impact on regional and local roadways and would not conflict with relevant federal, state, or local transportation policies, plans, and standards. Therefore, the impact would be **less than significant**.

Mitigation: Implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b.

LSPGC Mitigation Measure 3.17-1a: Implement Coordinated Traffic Control Plan.

LSPGC shall coordinate with Project proponents, contractors, and local agencies, as applicable, for other construction projects in the Project vicinity that may temporally overlap with Project construction, such as projects identified as potentially contributing to cumulative effects. In consideration of these coordination efforts, at least 30 days before the issuance of construction or building permits, LSPGC shall prepare and implement a traffic control plan for roadways adjacent to and directly affected by the Project. The traffic control plan shall address the transportation impact(s) of the temporally overlapping construction projects within the Project vicinity. The traffic control plan shall include, but not be limited to, the following requirements:

- Coordination of individual traffic control plans for the Project with nearby projects. As available, the individual traffic controls plans shall be appended to the Project's traffic control plan.
- Coordination between LSPGC, Project proponents, contractors, and State and local agencies in developing circulation and detour plans that include safety features (e.g., signage and flaggers). The circulation and detour plans shall address the following:
  - Full and partial roadway closures.
  - The use of signage and flagging to guide vehicles through or around the construction zone and any temporary traffic control devices.
  - Bicycle or pedestrian detour plans, where applicable.
  - Parking along public roadways.
  - Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites.
  - Protocols for updating the traffic control plan to account for delays or changes in the schedules of individual projects.

LSPGC's traffic control plan, with proof of coordination, shall be submitted to the CPUC 30 days before the start of construction. LSPGC Mitigation Measure 3.17-1a supersedes APM TRA-1.

LSPGC Mitigation Measure 3.17-1b: Infrastructure Repair Reporting.

After completion of the repair of any damaged roads, sidewalks, trails, and bicycle facilities resulting from Project construction activities, LSPGC shall submit a report to the CPUC and other jurisdictions whose facilities have been affected by Project construction (e.g., city, county, state, etc.). This report will confirm that repairs are consistent with preconstruction conditions and in accordance with applicable requirements associated with permits granted for the Project. The report shall be submitted within 30 days after

completion of the repair(s). LSPGC Mitigation Measure 3.17-1b supersedes APM TRA-3.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b would help ensure that the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and this impact would be reduced to a less-than-significant level.

Criterion b) Whether the Project would conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).

Project construction would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b). (*No Impact*)

The standards outlined in the Technical Advisory on Evaluating Transportation Impacts in CEQA direct the impact analysis to address a project's additional permanent automobile trips or VMT (i.e., project operations) in lieu of an existing model or method (LCI 2018). Because Project construction would be temporary (i.e., not permanent), construction activities do not necessitate analysis under CEQA Guidelines Section 15064.3(b). Therefore, no impact would occur.

Impact 3.17-2: Project operation and maintenance would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b). (*Less than Significant*)

Section 15064.3 was added to the CEQA Guidelines to provide guidance for determining the significance of transportation impacts. This section provides criteria for determining a project's transportation impacts, including those for land use projects (Section 15064.3[b][1]) and transportation projects (Section 15064.3[b][2]). According to CEQA Guidelines Section 15064.3(a), "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." Because the Project would not be a traditional land use or transportation project that would generate VMT on a regular basis, criteria 1 and 2 are not applicable. A qualitative analysis of transportation impacts is provided accordingly (Section 15064.3[b][3]).

According to Santa Clara County's TIA Guidelines, if a proposed project generates fewer than 100 permanent net new peak hour trips per day, then the project is not required to conduct VTA's CMP transportation analysis (VTA 2014a). The Project would meet the screening qualifications set by Santa Clara County for requiring a quantitative transportation impact analysis. Therefore, in accordance with CEQA Guidelines Section 15064.3(b)(3), a qualitative analysis of transportation effects is provided.

Operation and Maintenance

During Project operation and maintenance, the Project would not require any on-site staff to operate or maintain the Project facilities. LSPGC would hire one technician located near the Project area to perform routine inspections, monitoring, and repairs. Additionally, two other technicians located in California for LSPGC's other projects would assist with operation and

maintenance of the Project facilities if needed. Day-to-day Project management would be provided by LSPGC's asset management team from remote control centers.

The Project is designed to increase the reliability of the electrical system in the region, resulting in less frequent operation and maintenance or emergency repairs and a net reduction in vehicle trips and long-term VMT compared to existing conditions. Therefore, given the net reduction in operation and maintenance or emergency repairs resulting from Project operation, the Project would result in a negligible change in VMT. Considering the minimal number of as-needed trips for inspection and maintenance, Project operation and maintenance would not result in a significant increase in relative VMT. Therefore, Project operation and maintenance would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b). This impact would be **less than significant**.

Mitigation: None required.

Criterion c) Whether the Project would substantially increase hazards due to a geometric design feature (such as sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

The Project would not substantially increase hazards due to incompatible uses. (*No Impact*)

The Project would expand energy utility–related uses in the Project area. Proposed infrastructure would be adjacent to and compatible with existing energy utility uses. Therefore, the Project would not result in the construction of land uses incompatible with existing land uses in the Project area and no impact would occur.

Impact 3.17-3: The Project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections). (*Less than Significant with Mitigation*)

Construction

Large, slow-moving construction trucks traveling to and from the Project's construction sites on local roads would temporarily change driving conditions. Additionally, expected traffic closures would temporarily alter circulation patterns, potentially increasing transportation hazards due to altered geometric design features, such as detour lanes and traffic calming features. Project construction may substantially increase hazards because of geometric design features, which could have a significant impact. Also, as noted above and provided in Appendix A, a member of the public expressed concern that the temporary closure of the Coyote Creek Trail would force bicyclists to use alternate routes lacking bicycle facilities and result in increased safety risks.

LSPGC's implementation of APM TRA-1 would reduce this potential impact, which would require LSPGC to coordinate construction activities with applicable local jurisdictions before construction to help ensure that construction work and associated lane closures comply with encroachment permits, including those set forth by Caltrans, among other requirements. However, even with implementation of APM TRA-1, the potential impacts related to this criterion could still

be significant as the implementation and reporting requirements, or lack thereof, provided by APM TRA-1 may not result in effectively minimizing or avoiding impacts to a less-than-significant level, especially as defined under CEQA (CEQA Guidelines Section 15126.4).

LSPGC would implement LSPGC Mitigation Measure 3.17-1a, which supersedes APM TRA-1 and requires LSPGC, among other requirements, to submit the Project's traffic control plan (TCP) at least 30 days before the issuance of construction or building permits. Implementing these measures, in addition to guidance from state, regional, and local agencies as part of any applicable encroachment permit requirements, would minimize the potential increase in hazards due to geometric design features. Therefore, implementation of LSPGC Mitigation Measure 3.17-1a, in combination with LSPGC's APM TRA-1, would reduce the Project's construction-related impacts to a **less-than-significant** level.

Operation and Maintenance

The Project would include two new access roads, which would connect the proposed Grove and Skyline HVDC Terminals to existing roadways (see Figure 2-5 and Figure 2-6, which show the proposed new access roads). Ancillary facilities include road and trail improvements, including a new road alignment along Coyote Ranch Road, a new turnaround at the entrance of Coyote Ranch, and a realignment of the Coyote Creek Trail. Thus, the Project would require altering the local circulation system such that roadway users, such as local residents, may be unfamiliar with the temporary circulation system layout. However, the purpose of the new access roads and road and trail improvements is to allow more efficient ingress and egress of vehicles to Coyote Ranch, therefore, generally benefiting the efficiency of the regional circulation system.

Consequently, this may result in an increase in hazards during Project operation and maintenance due to altered geometric design features of the typical circulation system layout and, thus, there could be a potential impact during Project operation and maintenance. And while LSPGC would implement APM TRA-3, which would require LSPGC to repair damage to roads, trails, and bicycle facilities from Project construction activities to pre-existing conditions, this measure does not provide sufficient implementation and reporting requirements to ensure that these potential impacts would be reduced to a less-than-significant level.

As discussed above, LSPGC would implement LSPGC Mitigation Measure 3.17-1b, which supersedes APM TRA-3, and requires LSPGC to submit a report to the CPUC and other applicable jurisdictions within 30 days to confirm the repairs. Therefore, the Project's operation and maintenance impact pertaining to a substantial increase in hazards due to geometric design features would be reduced to a **less-than-significant** level as the combination of LSPGC Mitigation Measure 3.17-1b and APM TRA-3 would ensure that facilities damaged during construction of the Project is repaired to, at least, pre-existing conditions and such repairs are conducted and reported with local jurisdictions' standards and requirements.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b would help ensure that impacts related to a substantial increase of hazards due to a geometric feature would be less than significant.

Criterion d) Whether the Project would result in inadequate emergency access.

Project operation and maintenance would not result in inadequate emergency access. (*No Impact*)

Project operation and maintenance would include annual routine maintenance trips, inspections, and as-needed management activities (e.g., vegetation trimming). Normal Project operation and maintenance would be controlled remotely through LSPGC's control systems and manually in the field as required. Relative to existing conditions, traffic increases for operation and maintenance activities would be nominal compared to existing traffic in the area. Therefore, Project operation and maintenance would have no impact on emergency access.

Impact 3.17-4: The Project could result in inadequate emergency access. (*Less than Significant with Mitigation*)

The Project would not require the full closure of any roads during construction or operation and maintenance. However, during underground construction within roadways, it is likely that two lanes of traffic would be shut down where construction would be taking place. Additionally, Project construction would involve the movement of oversized vehicles that could affect emergency vehicle access to and through the Project construction areas. In the event of an emergency, the combination of slower-moving vehicles and temporary lane closures could result in inadequate or delayed emergency access, which could cause a significant impact.

LSPGC's implementation of APM TRA-1 would reduce this impact, which would reduce traffic-related impacts associated with the construction of the proposed facilities, helping to ensure that emergency access would be maintained during Project construction. Pursuant to APM TRA-1, signage, flaggers, or other traffic control measures included in the TCP would be used to reduce potential disruptions to traffic flow and to maintain public safety during construction. Project construction activities would be coordinated with local law enforcement, fire protection, and emergency medical agencies, as required. As previously described, although some disruption to traffic flow may occur when trucks ingress or egress from the access roads, such events would be periodic and temporary.

In the event that two lanes of traffic would need to be shut down on two-lane roads, LSPGC would coordinate with affected local jurisdictions to help ensure that emergency access would be maintained. For example, as a condition of approval pursuant to the TCP, the Project may be required to leave one lane open, provide detour emergency routes, or limit construction to one traffic lane plus the shoulder. Additionally, emergency service providers would be notified of the timing, location, and duration of construction activities, as required by the local encroachment permits. Therefore, access routes for emergency vehicles within and near the Project sites would be maintained.

Furthermore, a new turnaround would be installed at the entrance of Coyote Ranch to allow for more effective ingress and egress of fire apparatuses. Additionally, the new facilities would be unstaffed and remotely monitored during operation, resulting in minimal impacts on surrounding roadways aside from occasional maintenance trips.

However, even with implementation of APM TRA-1, the potential impacts related to this criterion could still be significant as the implementation and reporting requirements, or lack thereof, provided by APM TRA-1 may not result in effectively minimizing or avoiding impacts to a less-than-significant level, especially as defined under CEQA (CEQA Guidelines Section 15126.4).

LSPGC would implement LSPGC Mitigation Measure 3.17-1a, which supersedes APM TRA-1, and requires LSPGC, among other requirements, to submit the Project's traffic control plan (TCP) at least 30 days before the issuance of construction or building permits. Implementing these measures, in addition to guidance from state, regional, and local agencies as part of any applicable encroachment permit requirements, would minimize potential impacts to adequate emergency access. Therefore, the impact would be **less-than-significant** with mitigation.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.17-1a.
>
> **Significance after Mitigation*:*** Implementation of LSPGC Mitigation Measure 3.17-1a would help ensure that impacts related to emergency access would be less than significant, as these measures would help maintain emergency access during Project construction through the use of signage, flaggers, and other traffic control measures.

Criterion e) Whether the Project would create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations.

Impact 3.17-5: The Project could create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations. (*Less than Significant with Mitigation*)

Construction

As mentioned in Section 3.17.1, *Environmental Setting*, many public transit facilities exist along the proposed Grove to Skyline 320 kV Transmission Line and could be affected by transmission line-related construction activities. These activities would require temporary lane closures and would involve the movement of oversized vehicles that could affect emergency vehicle access to and through the Project construction areas. These lane closures could also affect associated sidewalks, pedestrian paths, or bicycle lanes. If these temporary lane closures develop hazardous conditions because of reduced facilities (i.e., congestion), a significant impact could occur on people walking, bicycling, or driving or for public transit operations. Also, as noted above and provided in Appendix A, a member of the public expressed concern that the temporary closure of the Coyote Creek Trail would force bicyclists to use alternate routes lacking bicycle facilities and result in increased safety risks.

LSPGC's implementation of APM TRA-1 would reduce this impact, which would include the preparation of a TCP that outlines measures to guide traffic (e.g., signs and workers directing

traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts during construction. Signage, flaggers, or other traffic control measures would be used to reduce potential disruptions to traffic flow and to maintain public safety during construction. Although some disruption to traffic flow may occur when Project trucks ingress or egress from site access roads, this disruption would be periodic and temporary.

Under **APM TRA-2: Coordinate Bus Closures with Santa Clara VTA**, LSPGC would coordinate bus stop closures with the Santa Clara VTA in advance to minimize disruptions to service. Although some disruption to the circulation system may occur when bus lanes are closed during the transmission line construction, this disruption would be temporary. Advanced notice, signage at bus stops, route detours, and updates on the VTA website will be provided ahead of the temporary bus stop closures. Thus, people walking, bicycling, or driving or for public transit operations near the Project area would not experience major disruptions from construction related to potentially hazardous conditions.

However, while implementation of APMs would reduce potential impacts related to this criterion, the impacts could still be significant as the implementation and reporting requirements, or lack thereof, provided by APM TRA-1 may not result in effectively minimizing or avoiding impacts to a less-than-significant level, especially as defined under CEQA (CEQA Guidelines Section 15126.4). LSPGC would implement LSPGC Mitigation Measure 3.17-1a, which supersedes APM TRA-1, and requires LSPGC, among other requirements, to submit the Project's traffic control plan (TCP) at least 30 days before the issuance of construction or building permits.

Implementing LSPGC Mitigation Measure 3.17-1a, in combination with APM TRA-1 and APM TRA-2, as well as guidance from state, regional, and local agencies as part of any applicable encroachment permit requirements, would minimize potential impacts related to this criterion to a **less-than-significant** level.

Operation and Maintenance

Once constructed, the Project would include two new HVDC terminals, new transmission lines and associated infrastructure, modifications to the existing PG&E substations, and ancillary facilities. Most of the Project's proposed transmission lines would be underground or directly at the HVDC terminal site. These Project components would not be publicly accessible by pedestrians, bicycles, or vehicles, and they would not impede access to transit. The Project would be operated primarily through a remote control center, resulting in minimal site traffic by authorized personnel. In addition, LSPGC would implement APM TRA-1, which would require LSPGC to repair damage to roads, sidewalks, trails, and bicycle facilities from Project construction activities to their pre-existing conditions and submit a report to the CPUC to confirm the repairs. LSPGC would also implement APM TRA-3, which would require LSPGC to repair damage to roads, trails, and bicycle facilities from Project construction activities to pre-existing conditions.

However, while implementation of APMs would reduce potential impacts related to this criterion, the impacts could still be significant as the implementation and reporting requirements, or lack thereof, provided by APM TRA-1 and APM TRA-3 may not result in effectively minimizing or

avoiding impacts to a less-than-significant level, especially as defined under CEQA (CEQA Guidelines Section 15126.4).

LSPGC would implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b, which supersedes APM TRA-1 and APM TRA-3, respectively. These mitigation measures, in combination with LSPGC's APMs, would require LSPGC to submit reports in accordance with CEQA requirements, notably those that relate to the development of feasible and enforceable measures. For the reasons discussed above, this impact would be mitigated to a **less-than-significant** level.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b.
>
> **Significance after Mitigation:** Implementation of LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b would help ensure that impacts related to potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations would be less than significant, as these measures would assist in guiding traffic, safeguarding construction workers, providing safe passage, minimizing traffic impacts during construction, and repairing any damage from Project construction to roads, sidewalks, trails, and bicycle facilities.

Criterion f) Whether the Project would interfere with walking or bicycling accessibility.

Project operation and maintenance activities would not interfere with walking or bicycling accessibility. *(No Impact)*

As described previously, LSPGC would hire one technician to be located near the Project to perform routine inspections, monitoring, and repairs, while day-to-day management of the Project would be provided by LSPGC's asset management team from remote control centers. Therefore, there would be minimal vehicle traffic to Project facilities during operation and maintenance that could interfere with pedestrian or bicycle access. There would be no interference with pedestrian or bicycle facilities. Therefore, no impact would occur.

Impact 3.17-6: Project construction could interfere with walking or bicycling accessibility. (*Less than Significant with Mitigation*)

Temporary closures of sidewalks or bike lanes may be necessary within existing roads or trails to allow adequate work area for construction at any given time. The proposed realignment of Coyote Ranch Road and Coyote Creek Trail would also require the closure of those roadways during the construction of road improvements. Also, as noted above and provided in Appendix A, a member of the public expressed concern that the temporary closure of the Coyote Creek Trail would force bicyclists to use alternate routes lacking bicycle facilities and result in increased safety risks. These temporary closures would potentially interfere with walking or bicycling accessibility, which could result in a significant impact.

LSPGC's implementation of APM TRA-1 would reduce this impact, which would manage temporary closures so that pedestrians and bicyclists would be able to safely navigate roadway access and avoid construction hazards. These measures include traffic guidance, barriers between work zones, and adequate signage to safely guide walking and bicycling accessibility. Additionally, LSPGC would implement APM TRA-3, which would require LSPGC to repair damage to roads, trails, and bicycle facilities from Project construction activities to pre-existing conditions and would require LSPGC to submit a report to the CPUC and other applicable jurisdictions to confirm the repairs.

However, while implementation of APMs would reduce potential impacts related to this criterion, the impacts could still be significant as the implementation and reporting requirements, or lack thereof, provided by APM TRA-1 and APM TRA-3 may not result in effectively minimizing or avoiding impacts to a less-than-significant level, especially as defined under CEQA (CEQA Guidelines Section 15126.4).

LSPGC would implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b, which supersedes APM TRA-1 and APM TRA-3, respectively. These mitigation measures, in combination with LSPGC's APMs, would require LSPGC to submit reports in accordance with CEQA requirements, notably those that relate to the development of feasible and enforceable measures.

After the installation of the proposed underground transmission lines (i.e., proposed Grove to Skyline 320 kV Transmission Lines and proposed Metcalf to Grove 500 kV Transmission Line), the road surface would be restored to the original condition or otherwise in compliance with local requirements. Coyote Ranch Road would be repaved, improved, and realigned in accordance with the easement to be negotiated with the Santa Clara County Parks Department (see Chapter 2, Section 2.8.2, *Staging and Construction Work Areas*, for further information on road restoration after construction). Walking and bicycling accessibility would be maintained in the Project vicinity throughout construction, and all disturbed surfaces would be restored to the original condition after installation of the proposed underground transmission lines. Therefore, the impact would be **less than significant** with mitigation.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b.
>
> **Significance after Mitigation:** Implementation of LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b would help ensure that impacts related to interference with walking or bicycling accessibility would be less than significant, as these measures would ensure that pedestrians and bicyclists would be able to safely navigate roadway access and avoid construction hazards and would require LSPGC to repair damage to roads, trails, and bicycle facilities from Project construction activities to pre-existing conditions.

Criterion g) Whether the Project would substantially delay public transit.

Project operation and maintenance would not substantially delay public transit. (*No Impact*)

Traffic related to Project operation would be minimal, as the proposed facilities would be managed from remote control centers. The proposed substation improvements, transmission line, and associated infrastructure would not interfere with the public transit operations in the Project vicinity. Therefore, no substantial delays attributable to Project operation and maintenance would occur, and no impact would occur.

***Impact 3.17-7: Project construction could substantially delay public transit. (*Less than Significant with Mitigation)**

The proposed Grove to Skyline 320 kV Transmission Line would span approximately 13 miles, running northwest to southeast along Monterey Road to connect the two new terminals. Along this route, there are six bus stops and two train stations (see Table 3.17-2, *Transit Facilities Along the Grove to Skyline 320 kV DC Transmission Line Alignment,* for further details on the transit facilities that exist along the alignment). Construction activities, particularly underground installations, may temporarily close roadway lanes along Monterey Road, potentially causing delays to public transit. In the event that public transit operations intersect with these temporary closures, substantial delays in public transit could occur.

LSPGC's implementation of APM TRA-1 and APM TRA-2 would reduce this impact. APM TRA-1 includes the preparation of a TCP that outlines measures to guide traffic and minimize traffic impacts during construction. Signage, flaggers, or other traffic control measures would be used to reduce potential disruptions to traffic flow during construction. Thus, transit users near the Project area would not experience major disruptions from construction as it relates to potentially hazardous conditions. APM TRA-2 would require LSPGC to coordinate closures with VTA and provide advance notice of potential service disruption, which would allow bus service providers to plan accordingly. Additionally, during construction, workers would likely use personal vehicles rather than public transit to access the Project areas, as active construction sites would not be publicly accessible.

However, while implementation of APMs would reduce potential impacts related to this criterion, the impacts could still be significant as the implementation and reporting requirements, or lack thereof, provided by APM TRA-1 may not result in effectively minimizing or avoiding impacts to a less-than-significant level, especially as defined under CEQA (CEQA Guidelines Section 15126.4).

LSPGC would implement LSPGC Mitigation Measure 3.17-1a, which supersedes APM TRA-1. These mitigation measures, in combination with LSPGC's APMs, would require LSPGC to submit reports in accordance with CEQA requirements, notably those that relate to the development of feasible and enforceable measures. Therefore, Project construction would not result in substantial delays for public transit, and the impact would be **less than significant** with mitigation.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.17-1a.
>
> **Significance after Mitigation:** Implementation of LSPGC Mitigation Measure 3.17-1a would help ensure that impacts related to substantial delays for public transit would be less than significant, as these measures would guide traffic and minimize traffic impacts

during construction and, therefore, prevent transit users from experiencing major disruptions from construction as well as provide advance notice of potential service disruption.

3.17.6 Cumulative Effects Analysis

This cumulative impacts analysis considers whether the incremental direct and indirect impacts of the Project could combine with the incremental impacts of past, present, or reasonably foreseeable probable future projects to cause or contribute to potential significant cumulative impacts on transportation as a result of any of the following: conflict with an applicable plan, ordinance, or policy establishing measures for the performance of the circulation system; conflict with CEQA Guidelines Section 15064.3; substantial increased hazards because of design features or incompatible uses; or inadequate emergency access. Additionally, this cumulative effects analysis considers projects that would create hazardous conditions for people walking, bicycling, or driving or for public transit operations; interfere with walking or bicycling accessibility; or substantially delay public transit. The geographic extent for considering the Project's cumulative impacts on transportation includes all regional and local roadways that may be used to access the Project area or that would otherwise be affected by the Project during construction. The timeframe for considering the Project's cumulative impacts is concurrent with the Project's timing of impacts on the identified transportation considerations.

Operational traffic and transportation–related impacts are inherently cumulative because impacts on the operational efficiency, or structural integrity, of the circulation system result from vehicles originating from a variety of sources. Although projects in the cumulative scenario have the potential to add vehicle trips to the same segments of roads or intersections affected by the Project, it is impossible to quantitatively assess whether the projects would result in a cumulatively considerable impact without readily accessible data.

3.17.6.1 Criterion a)

Impact C.3.17-1: The Project, in combination with the cumulative projects, could conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. (*Less than Significant with Mitigation*)

As discussed under Impact 3.17-1, the Project may affect the circulation system depending on construction progress, schedule, and location. Other factors that may affect the circulation system include proposed temporary lane closures, the use of large, slow-moving construction vehicles, and the temporary increase in traffic in the regional and local circulation system. Thus, there is potential for the Project to have a cumulatively considerable impact related to this criterion. As presented in Table 3.0-1 and shown in Figure 3.0-1, there are approximately 80 cumulative projects in the Project area vicinity, which vary in types of development, such as residential, mixed-use, and industrial. Thus, by conservatively assuming that each cumulative project would use large, slow-moving construction vehicles and necessitate temporary lane closures during the same time at which Project construction activities are also active (i.e., overlapping construction

schedules), the Project, in combination with the cumulative projects, could conflict with a program, plan, ordinance, or policy addressing the circulation system.

The Project, as well as each cumulative project, is expected to be subject to design review pursuant to each applicable jurisdiction's requirements (e.g., Caltrans, municipal transportation department, public works department). It is expected that the Project and cumulative projects would confirm with design standards, particularly those that would align with a jurisdiction's existing circulation infrastructure. The approval of the Project and cumulative projects would depend on measures that avoid or reduce cumulative effects related to this criterion. Additionally, as noted in Table 3.0-1, many of the cumulative projects are in preliminary design, review, or approved stages, which do not accurately reflect their potential effects on nearby circulation system(s) and, notably, construction details or construction schedules. Therefore, the potential cumulative impacts of cumulative projects that have not reached the appropriate level of detail to establish a meaningful assessment for this analysis cannot be reasonably determined at this time.

Additionally, LSPGC would implement APM TRA-1, which would require LSPGC to coordinate all construction activities with applicable local jurisdictions before construction to help ensure that construction activities comply with encroachment permit requirements, as well as applicable programs, plans, ordinances, or policies addressing the circulation system. LSPGC would also implement APM TRA-3, which would require LSPGC to repair damage to roads, sidewalks, trails, and bicycle facilities from Project construction activities to pre-existing conditions and submit a report upon completion to applicable agencies.

Furthermore, LSPGC would implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b, which supersedes APM TRA-1 and APM TRA-3, respectively. These mitigation measures, in combination with LSPGC's APMs, would require LSPGC to submit reports in accordance with CEQA requirements, notably those that relate to the development of feasible and enforceable measures.

These efforts would address the potential transportation impacts of overlapping construction projects within the Project vicinity, particularly as it relates to this criterion. Therefore, the Project, in combination with the cumulative projects, would be mitigated to a **less-than-significant** level related to a conflict with a program, plan, ordinance, or policy addressing the circulation system.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b.
>
> **Significant after Mitigation:** Implementation of LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b would help ensure that cumulative impacts related to this criterion would be less than significant, as the measures would help to ensure that construction activities comply with encroachment permit requirements, programs, plans, ordinances, or policies addressing the circulation system and that any damage to roads, sidewalks, trails, and bicycle facilities be repaired.

3.17.6.2 Criterion b)

Project construction would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b). Because Project construction would result in no impact, Project construction would also result in no cumulative impact. (*No Impact*)

Impact C.3.17-2: Project operation and maintenance, in combination with the cumulative projects, would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b). (*Less than Significant*)

As provided in Impact 3.17-1, Project operation and maintenance would not generate more than 110 daily permanent automobile trips. With respect to trips for cumulative projects, transportation–related impacts are inherently cumulative because impacts on the operational efficiency, or structural integrity, of the circulation system result from vehicles originating from a variety of sources. The thresholds set forth in the *Technical Advisory on Evaluating Transportation Impacts in CEQA* are designed to manage increased traffic on a project-by-project basis to reduce the potential for an individual project to result in a cumulatively considerable impact related to traffic and transportation (LCI 2018). Cumulative projects are currently in varying levels of environmental review (e.g., preliminary, in progress, or completed); however, readily accessible data suggest that, individually, cumulative projects would not exceed thresholds set forth by local jurisdictions and would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).

Cumulative projects would likely undergo review as necessary to determine their consistency with planned transportation growth in local jurisdictions relative to VMT. Therefore, the contribution of the Project to a cumulative impact would not be cumulatively considerable and, in combination with the cumulative projects, would result in a **less-than-significant** impact related to potential conflicts or inconsistency with CEQA Guidelines Section 15064.3(b).

Mitigation: None required.

3.17.6.3 Criterion c)

As discussed in Impact 3.17-3, the Project would expand energy utility–related uses in the Project area, adjacent to existing energy utility uses. Because the Project would not result in the construction of a land use that would be incompatible with existing land use in the Project area, the Project's contribution to a cumulative impact would not be cumulatively considerable relative to the impacts that could be generated by the cumulative projects identified in Chapter 3.0, *Environmental Setting, Impacts, and Mitigation Measures*. Therefore, the Project would result in no cumulative impact related to a substantial increase in hazards due to incompatible uses. (*No Impact*)

Impact C.3.17-3: The Project, in combination with the cumulative projects, would not result in increased hazards due to a geometric design feature. (*Less than Significant with Mitigation*)

As discussed in Chapter 3.0, there are several existing and future cumulative projects within a 2-mile radius from the Project's proposed transmission lines and proposed HVDC terminals. Similar to the discussion in Impact C.3.17-3, by conservatively assuming that each cumulative project would use large, slow-moving construction vehicles and necessitate temporary lane closures, there could be a cumulatively considerable increase in hazards due to a temporary

alteration of local roadway geometric design features and the use of slow-moving construction equipment (e.g., closing one lane of traffic in an otherwise two lane road could result in increased hazards due to changes in the typical design of the local roadway network). Therefore, Project construction, in combination with the cumulative projects, may have a cumulatively considerable impact related to increased hazards associated with geometric design features.

However, under cumulative conditions, it is likely that the Project, in combination with the cumulative projects, would not result in increased hazards due to geometric design features because each project would be individually subject to design review pursuant to each applicable local jurisdiction's requirements. The Project and cumulative projects would conform with design standards, particularly those that would align with the jurisdictions' existing infrastructure. The approval of these cumulative projects would depend on measures that avoid or reduce cumulative effects that would otherwise result in an increase in hazards due to a geometric design feature. Furthermore, as noted previously, many of the cumulative projects are in preliminary design, review, or approved stages, which do not accurately reflect a project's potential effects on nearby circulation system(s) and, therefore, the potential cumulative impact of those projects relative to an increased hazards due to geometric design features cannot be reasonably determined at this time.

LSPGC would implement APM TRA-1, which would require LSPGC to coordinate all construction activities with applicable local jurisdictions before construction to help ensure that construction activities and associated lane closures comply with encroachment permit requirements. LSPGC would also implement APM TRA-3, which would require LSPGC to repair damage to roads, sidewalks, trails, and bicycle facilities from Project construction activities to pre-existing conditions and submit a report upon completion to applicable agencies.

Furthermore, LSPGC would implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b, which supersedes APM TRA-1 and APM TRA-3, respectively. These mitigation measures, in combination with LSPGC's APMs, would require LSPGC to submit reports in accordance with CEQA requirements, notably those that relate to the development of feasible and enforceable measures.

These efforts would address the potential transportation impacts of overlapping construction projects within the Project vicinity in the region, including increased hazards due to geometric design features. Therefore, the Project, in combination with the cumulative projects, would be mitigated to a **less-than-significant** level related to any potential increase in hazards due to geometric design features.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b.
>
> **Significance after Mitigation:** Implementation of LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b would help ensure that cumulative impacts related to increased hazards due to a geometric design feature would be less than significant, as the measures would require LSPGC to coordinate all construction activities with local jurisdictions before construction and repair any damage to roads, sidewalks, trails, and bicycle facilities resulting from Project construction.

3.17.6.4 Criterion d)

Project operation and maintenance would have no impact on emergency access. Therefore, Project operation and maintenance would not contribute to any cumulative impact for inadequate emergency access. (*No Impact*)

Impact C.3.17-4: Project construction, in combination with the cumulative projects, would not result in inadequate emergency access. (*Less than Significant with Mitigation*)

Temporary lane closures would be needed for Project construction, which could result in delays along emergency access routes. In the event of an emergency, the combination of slower moving vehicles and temporary lane closures could result in inadequate or delayed emergency access. Some of the cumulative projects identified in Chapter 3.0.3, *Approach to the Cumulative Impact Analysis*, could also necessitate temporary road or lane closures and the use of slower moving vehicles, which could result in inadequate or delayed emergency access.

However, it is not likely that Project construction, in combination with the cumulative projects, would interfere with emergency access. Before finalizing the design and dimensions of any proposed transportation network changes under local jurisdictions, city department staff (e.g., fire and police departments) would review and approve any temporary and permanent street modifications so that emergency vehicle access is acceptable. As stated in Impact 3.17-3, LSPGC would implement APM TRA-1, which would reduce traffic-related impacts associated with construction of the proposed facilities so that emergency access would be maintained during Project construction.

Furthermore, LSPGC would implement LSPGC Mitigation Measure 3.17-1a, which supersedes APM TRA-1. This mitigation measure, in combination with LSPGC's APM, would require LSPGC to submit reports in accordance with CEQA requirements, notably those that relate to the development of feasible and enforceable measures.

It is also likely that the cumulative projects, notably those that would have potentially considerable transportation impacts, would also implement measures to reduce potential impacts on adequate emergency access. Therefore, construction of the Project, in combination with the cumulative projects, would not result in inadequate emergency access, and the impact would be **less-than-significant** with mitigation.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.17-1a.
>
> **Significance after Mitigation:** Implementation of LSPGC Mitigation Measure 3.17-1a would help ensure that cumulative impacts related to inadequate emergency access would be less than significant, as these measures would assist with maintaining emergency access during Project construction.

3.17.6.5 Criterion e)

Impact C.3.17-5: The Project, in combination with the cumulative projects, would not create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations. (*Less than Significant with Mitigation*)

As discussed previously, the Project would require temporary lane closures and would involve the movement of slow-moving, oversized vehicles that could affect access to and through the Project construction areas. Should these temporary lane closures develop hazardous conditions from the reduction of available facilities (e.g., congestion), there could be a significant impact on people walking, bicycling, or driving or for public transit operations. At this time, readily accessible data for the cumulative projects do not yet reveal whether the projects would individually require temporary lane closures and oversized construction vehicles. Conservatively assuming that each cumulative project would require some level of lane closure or construction vehicles, it is possible that the Project and the cumulative projects would create a cumulatively hazardous condition for people walking, bicycling, or driving or for public transit operations. In other words, under cumulative conditions, the number of people walking, bicycling, or driving on the surrounding street network would increase as a result of the nearby development projects and growth elsewhere in the city and region. This increase in development and growth could lead to an increase in the potential for conflicts between people walking, bicycling, driving, or for public transit operations, leading to potentially hazardous conditions.

LSPGC would implement APM TRA-1, which would involve the preparation of a TCP to guide traffic (such as signs and workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts during construction. Furthermore, LSPGC would implement LSPGC Mitigation Measure 3.17-1a, which supersedes APM TRA-1. This mitigation measure, in combination with LSPGC's APM, would require LSPGC to submit reports in accordance with CEQA requirements, notably those that relate to the development of feasible and enforceable measures.

Furthermore, the Project and cumulative projects would be designed consistently with applicable local jurisdictions' policies and design standards and would not create potentially hazardous conditions. Therefore, with LSPGC's implementation of APM TRA-1 and LSPGC Mitigation Measure 3.17-1a, cumulative impacts related to potentially hazardous conditions would be reduced to a **less than significant** level.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.17-1a.
>
> **Significance after Mitigation:** Implementation of LSPGC Mitigation Measure 3.17-1a would help ensure that cumulative impacts related to potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations would be less than significant, as these measures would assist with safeguarding construction workers, providing safe passage, and minimizing traffic impacts during construction.

3.17.6.6 Criterion f)

Project operation and maintenance would have no impact on walking or bicycling accessibility. Therefore, Project operation and maintenance would not contribute to the cumulative impact for walking or bicycling accessibility. (*No Impact*)

Impact C.3.17-6: Project construction, in combination with the cumulative projects, would not interfere with walking or bicycling accessibility. (*Less than Significant with Mitigation*)

The Project would require temporary closures of sidewalks or bike lanes within existing roads or trails. It is likely that some of the cumulative projects could also require temporary lane closures of sidewalks or bike lanes. Therefore, the Project, in combination with the cumulative projects, may interfere with walking or bicycling accessibility.

However, except for the Julian Street and St. James Street Couplet Conversion project (Julian Street project), none of the known cumulative projects would significantly change pedestrian or bicycling circulation in the Project vicinity. The purpose of the Julian Street project is to improve roadway functionality and safety for all roadway users and to improve neighborhood livability. The Julian Street project includes, but is not limited to, restriping the street for two-way traffic (one lane in each direction); installing new and modified signals to accommodate two-way traffic and improve signal responsiveness for pedestrians and bicyclists; installing streetlights (new pedestrian-scale lighting and conversion of existing lights to smart, energy efficient lighting); and providing amenities for livability, traffic calming, and complete streets. Construction of the Julian Street project is likely to begin in March 2026 and end in December 2026, which would overlap with a portion of the Project construction. The Julian Street project is immediately east of the northern part of the proposed Grove to Skyline 320 kV Transmission Line, crossing at the intersections of Terraine Street and Julian Street and West St. James Street. Given the overlapping construction schedules and proximity between these projects, the Project, in combination with the Julian Street project, could significantly interfere with walking or bicycling accessibility.

However, LSPGC would implement APM TRA-1, which would reduce this impact, as these measures would manage temporary closures so that pedestrians and bicyclists would be able to safely navigate roadway access and avoid construction hazards. For example, these measures include traffic guidance, barriers between work zones, and adequate signage to safely guide pedestrian and bicycling accessibility. Furthermore, LSPGC's implementation of APM TRA-3 would require LSPGC to repair damage to roads, trails, and bicycle facilities from Project construction activities to pre-existing conditions and would require LSPGC to submit a report to the CPUC and other applicable jurisdictions to confirm the repairs.

Furthermore, LSPGC would implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b, which supersedes APM TRA-1 and APM TRA-3, respectively. These mitigation measures, in combination with LSPGC's APMs, would require LSPGC to submit reports in accordance with CEQA requirements, notably those that relate to the development of feasible and enforceable measures.

Additionally, before finalizing the design and dimensions of any proposed transportation network changes within the city of San José, city department staff (e.g., transportation and public works departments) would review temporary and permanent street modifications so that walking and bicycling accessibility is retained throughout construction and operation and maintenance of the Project and the Julian Street project. For these reasons, cumulative impacts related to this criterion would be mitigated to **less than significant**.

> **Mitigation:** Implement LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b.
>
> **Significance after Mitigation:** Implementation of LSPGC Mitigation Measure 3.17-1a and LSPGC Mitigation Measure 3.17-1b would help ensure that cumulative impacts related to interference with walking or bicycling accessibility would be less than significant, as the measures would assist with allowing pedestrians and bicyclists to safely navigate roadway access and avoid construction hazards, and would require LSPGC to repair damage to roads, trails, and bicycle facilities resulting from Project construction.

3.17.6.7 Criterion g)

Project operation and maintenance would have no impact on public transit. Therefore, Project operation and maintenance would not cause or contribute to any cumulative impact for this criterion. (*No Impact*)

Impact C.3.17-7: Project construction, in combination with the cumulative projects, would not substantially delay public transit. (*Less than Significant with Mitigation*)

In the event that multiple active construction sites occur simultaneously within the local roadway network, there could be a substantial cumulative delay in public transit. For example, a two-lane road that does not typically handle high volumes of construction traffic that is also used for public transit may result in service delays.

However, it is not likely that the Project, in combination with the cumulative projects, would result in a substantial delay in public transit. Before finalizing the design and dimensions of any proposed transportation network changes under local jurisdictions, city department staff (e.g., fire and police departments) would review project construction schedules to help ensure appropriate considerations between construction of the cumulative projects and public transit service. LPSGC would also implement APM TRA- 1 and APM TRA-2, which would require LSPGC to coordinate closures with VTA and other transit services in the area, and provide advanced notice of potential service disruption, allowing bus services to plan accordingly.

LSPGC would also implement LSPGC Mitigation Measure 3.17-1a, which supersedes APM TRA-1. These mitigation measures, in combination with LSPGC's APMs, would require LSPGC to submit reports in accordance with CEQA requirements, notably those that relate to the development of feasible and enforceable measures.

Although some segments of the local roadway network would experience a temporary increase in construction traffic volume under cumulative conditions, the increase would not permanently

delay public transit. Therefore, with LSPGC's implementation of APM TRA-2, LSPGC Mitigation Measure 3.17-1a, and adherence to local rules and regulations governing public transit, the Project, in combination with the cumulative projects, would have a **less-than-significant cumulative impact**.

Mitigation: Implement Mitigation Measure 3.17-1a.

Significance after Mitigation: Implementation of LSPGC Mitigation Measure 3.17-1a would help ensure that cumulative impacts related to substantial delays for public transit would be less than significant, the measures would assist with guiding traffic and minimizing traffic impacts during construction and, therefore, prevent transit users from experiencing major disruptions from construction as well as provide advance notice of potential service disruption.

3.17.7 References

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3.18 Tribal Cultural Resources

This section evaluates the impact of the Project on tribal cultural resources. For the purposes of this analysis, the term *tribal cultural resource* is defined as follows:

> *Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are listed, or determined to be eligible for listing, in the California Register of Historical Resources (California Register), or a local register of historical resources.*

Section 3.5, *Cultural Resources*, provides a summary of the prehistoric and ethnographic context of the study area and a summary of the cultural resources studies completed for the Project. Much of the background context and methods used for the analysis of potential impacts from the Project on tribal cultural resources and cultural resources are the same. Therefore, to avoid redundancy, the information, which is presented in Section 3.5, *Cultural Resources*, is not repeated here.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to tribal cultural resources. In parallel to, and independent of, the formal scoping process, early tribal consultation was initiated and described in the following sections.

3.18.1 Native American Correspondence

On July 17, 2024, the Native American Heritage Commission (NAHC) provided a list of 19 Native American representatives from nine Tribes who may have knowledge of tribal cultural resources in the Project area. The Sacred Lands File (SLF) search was positive for sacred sites in the Project area (NAHC 2024).

On July 22, 2024, the CPUC notified the 19 Native American representatives whose contact information was provided by the NAHC by email and certified mail. These letters and emails provided information on the Project and solicited input from the recipients.

During the tribal notification period and as of the publication date of this EIR, the CPUC did not receive a response from the Amah Mutsun Tribal Band, the Northern Valley Yokut/Ohlone Tribe, the Ohlone Indian Tribe, and the Wuksachi Indian Tribe/Eshom Valley Band.

Amah Mutsun Tribal Band of Mission San Juan Bautista. On July 22, 2024, Lorelei Alli, on behalf of Irene Zwierlein, of the Amah Mutsun Tribal Band of Mission San Juan Bautista, emailed to notify the CPUC that mitigation recommendations were provided should the SLF results be positive. A request for consultation was not included in the email communication.

Costanoan Rumsen Carmel Tribe. On July 25, 2024, Samuel Thunder Rodriguez, Cultural Resource Officer of the Costanoan Rumsen Carmel Tribe (Costanoan Rumsen), responded by email requesting to consult on the Project and provided recommendations regarding cultural resource protection and tribal participation. On July 29, 2024, the CPUC responded to Rodriguez,

acknowledging the request for consultation, providing Project information, and requesting the representative's availability for future meetings. On August 1, 2024, Henry Munoz, Cultural Resource Officer and Most Likely Descendant, responded by email acknowledging receipt of the Project information and indicating that responses would be forthcoming. On August 5, 2024, the CPUC followed up, requesting the Costanoan Rumsen representatives provide meeting availability. On August 14, 2025, Munoz emailed, providing their availability. On August 16, 2024, the CPUC responded with a virtual meeting link and agenda. On August 20, 2024, the first consultation meeting occurred between the Costanoan Rumsen and the CPUC. Following the meeting, additional information was provided. On September 3, 2024, CPUC emailed Costanoan Rumsen representatives requesting a map or description of the Tribe's geographic area of interest as a reference for future projects. On September 12, 2024, the CPUC emailed Rodriguez and other representatives, thanking them for meeting and requesting they respond by September 30, 2024, to provide information for the Draft EIR. The CPUC has not received a response to date.

Muwekma Ohlone Tribe of San Francisco Bay Area. On August 6, 2024, Richard Massiatt, Executive Director of the Muwekma Ohlone Tribe of San Francisco Bay Area (Muwekma Ohlone), responded by email requesting to consult on the Project. On August 6, 2024, the CPUC responded by acknowledging the request for consultation and requesting the representative's availability for future meetings. On August 9, 2024, Massiatt responded stating that the Tribe would be in contact with dates. On September 12, 2024, the CPUC emailed Massiatt and Alan Leventhal, Tribal Archaeologist and Ethnohistorian, requesting representatives respond by September 30, 2024, with meeting availability or to provide information. On September 12, 2024, Massiatt confirmed receipt of the deadline notification. On September 13, 2024, Leventhal responded, confirming the Tribe's request to consult, and provided several historical and legal documents regarding the Muwekma Ohlone history, archaeological reports, and journal articles. On September 19, 2024, the CPUC thanked Leventhal for the information and requested the representatives' availability for future meetings. On November 14, 2024, the CPUC emailed Leventhal and other representatives thanking him for the information provided. Additionally, the CPUC informed representatives that the deadline was December 14, 2024, to meet or provide information. On June 6, 2025, CPUC conducted a virtual meeting with Massiatt and Leventhal. CPUC described the project and potential impacts to known resources. The CPUC discussed the proposed mitigation for the development of a Cultural Resources Treatment Plan, including a monitoring plan, and acknowledged the potential impacts to significant cultural resources. The CPUC recognized that the applicant and PG&E will continue to engage the Tribe during the development of the required treatment and monitoring plan. Because the CPUC and the Tribe were able to reach a mutual agreement regarding the Project's impacts and proposed mitigation, under the requirements of Public Resources Code Section 21080.3, the CPUC considered the consultation complete.

Indian Canyon Mutsun Band of Costanoan. On August 14, 2024, Kanyon Sayers-Roods, Consultant with Kanyon Konsulting LLC., on behalf of the Indian Canyon Mutsun Band of Costanoan (Indian Canyon), responded by email requesting to consult on the Project and provided recommendations regarding monitoring. On August 14, 2024, the CPUC responded to Sayers-Roods, acknowledging consultation and requesting representatives' availability for future meetings. On September 12, 2024, Kanyon Konsulting, LLC., responded with availability in

September. On September 13, 2024, the CPUC confirmed availability for the proposed dates. On October 1, 2024, the first consultation meeting occurred between Indian Canyon and the CPUC. On September 12, 2024, the CPUC emailed Sayers-Roods, thanking her for the meeting and requesting that she respond by September 30, 2024, to provide additional information. The CPUC has not received a response to date.

Tamien Nation. On August 22, 2024, Quirina Geary, Chairperson of the Tamien Nation, contacted Environmental Science Associates (ESA) Archaeologist Ashleigh Sims, notifying her that the Tamien Nation requested consultation on the Project. Following the conversation, Sims notified the CPUC by email of the request. Immediately, the CPUC responded to Chairperson Geary by email, acknowledging consultation and requesting availability to meet. On September 12, 2024, the CPUC emailed Chairperson Geary, informing her that the deadline to meet or provide information was August 22, 2024. On September 17, 2024, Geary responded confirming interest and provided a link to schedule a meeting. On October 2, 2024, the CPUC met with the Tamien Nation and requested that additional cultural resources data be provided to the Tribe for their review. On October 10, 2024, ESA provided the requested information to the Tamien Nation. On November 14, 2024, the CPUC informed the Tamien Nation that the deadline to meet or provide information was December 14, 2024. The CPUC has not received a response to date. On June 24, 2025, ESA met with a representative of the Tamien Nation to discuss tribal consultation during the public review period of the Draft EIR.

On May 30, 2025, ESA — on behalf of the CPUC — contacted all Tribes that have requested to be consulted on the Project, with an update on the Project environmental review process and to notify consulting Tribes that they will receive the Notice of Availability once the Draft EIR is published. As of the date of publication of Draft EIR, the CPUC continues consultation with Tribes that have requested to be consulted in the Project (i.e., tribal consultation is ongoing and will continue through the Draft EIR public review period).

3.18.2 Regulatory Setting

3.18.2.1 Federal

No federal regulations specifically related to tribal cultural resources are applicable to the Project.

3.18.2.2 State

Native American Heritage Commission

The NAHC was created by statute in 1976. It is a nine-member body appointed by the governor to identify and catalog places of special religious or social significance to Native Americans and known graves and cemeteries of Native Americans on private lands. The NAHC is responsible for preserving and ensuring the accessibility of sacred sites and burials, ensuring the disposition of Native American human remains and burial items, maintaining an inventory of Native American sacred sites located on public lands, and reviewing current administrative and statutory protections related to these sacred sites. Sacred lands documented in the NAHC's SLF may constitute a tribal cultural resource. Additionally, the NAHC maintains a list of relevant Tribes and tribal representatives for consultation.

California Public Resources Code

Assembly Bill 52

In 2014, the California Legislature enacted Assembly Bill (AB) 52, which added provisions to the Public Resources Code (PRC) regarding the evaluation of impacts on tribal cultural resources under CEQA, and requirements to consult with California Native American Tribes. In particular, AB 52 requires lead agencies to analyze project impacts on tribal cultural resources separately from archaeological resources (PRC Sections 21074 and 21083.09). AB 52 defines *tribal cultural resources* in PRC Section 21074 and requires lead agencies to engage in additional consultation procedures with respect to California Native American Tribes (PRC Sections 21080.3.1–21082.3).

A *tribal cultural resource* is defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, that includes the following:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k).
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). In applying the criteria set forth in PRC Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American Tribe.

AB 52-compliant tribal consultation is required to determine if there are tribal cultural resources that may be impacted by a project.

PRC Sections 5097.98 and 5097.99 (Discovery)

PRC Section 5097.98 (reiterated in CEQA Guidelines Section 15064.5[e]) identifies the steps to follow in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery. PRC Section 5097.99 prohibits obtaining or possessing any Native American artifacts or human remains that are taken from a Native American grave or cairn (stone burial mound). Should Native American human remains be identified during Project construction or operation, this regulation would apply.

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 protects human remains by prohibiting the disinterment, disturbance, or removal of human remains from any location other than a dedicated cemetery. If human remains are identified during Project construction or operation and maintenance, this regulation would apply.

3.18.2.3 Local

Santa Clara County and the city of San José created historical preservation and conservation policy frameworks and implementation programs. For a full description of these policies and programs, see Section 3.5.2, *Regulatory Settings*, in Section 3.5, *Cultural Resources*.

3.18.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility would be responsible for implementing its measures only for that part of the Project that it would own or for which it would be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the PG&E San Jose B Substation to a splice vault located at the PG&E Metcalf Substation. Specifically, at the northern end of the Project area, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the PG&E San Jose B Substation. At the southern end of the Project area, LSPGC's scope would stop at a splice vault located at the western property line of the PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the portion of the Project involving modifications within the existing PG&E San Jose B and Metcalf substations. At the PG&E San Jose B Substation, PG&E would be responsible for the work starting from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E would be responsible for the work starting from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.18.3.1 Applicant-Proposed Measures

LSPGC has developed Applicant-proposed measures (APMs) that are incorporated into LSPGC's components of the Project to reduce potential effects on tribal cultural resources. The following impact analysis assumes that LSPGC would implement the following APMs as part of its portion of work for the Project.

- **APM TCR-1: WEAP Training.** LSPGC shall work with interested tribes to design the tribal cultural resources component of a Worker Environmental Awareness Program (WEAP) that shall be provided to all Proposed Project personnel who may encounter and/or alter tribal cultural resources or prehistoric/ethnohistoric archaeological properties, including construction supervisors and field personnel. The WEAP shall be submitted to the CPUC prior to construction. No construction worker shall be involved in ground-disturbing activities without having participated in the WEAP. The WEAP shall include, at a minimum:
  - Training on how to identify potential tribal cultural resources and human remains during the construction process;
  - A review of applicable regulations pertaining to tribal cultural resources;
  - A discussion of procedures to be followed in the event that unanticipated tribal cultural resources are discovered during implementation of the Project;

  - A discussion of culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including the cultural character and integrity, traditional uses, and confidentiality of resources.
  - A statement by the construction company or applicable employer agreeing to abide by the WEAP, LSPGC policies, and other applicable laws and regulations.

  The WEAP may be conducted in concert with other environmental or safety awareness and education programs for the Project, provided that the program elements pertaining to cultural resources are designed with the input of interested tribes.

- **APM TCR-2: Native American Monitoring.** Native American monitoring shall be conducted during ground disturbance associated with the Project when within 100 feet (30 meters) of previously recorded prehistoric, ethnohistoric, or tribal cultural resources. Prehistoric and/or ethnohistoric archaeological sites have been recorded within the Proposed Project area, and the SLF search and tribal outreach indicates that lands sacred to the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, the Ohlone Indian Tribe, the Tamien Nation, and the Amah Mutsun Tribal Band are present within the Proposed Project search area. A Native American monitor determined during Tribal consultation shall be retained by LSPGC to monitor excavation associated with the Proposed Project to ensure that there is no impact to any significant unanticipated prehistoric, ethnohistoric, or tribal cultural resource. Prior to construction, LSPGC shall confer with a designated tribal representative on the appropriate course of action to be taken should unanticipated cultural materials, and specifically human remains, be discovered during construction. Native American monitoring requirements established in this APM may be superseded by government-to-government consultation conducted between the CPUC and tribal organizations as part of the AB 52 process or otherwise.

3.18.3.2 PG&E Best Management Practices and Field Protocols

PG&E has not proposed any best management practices or field protocols specifically pertaining to tribal cultural resources within its portion of work for the Project.

3.18.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant impact related to tribal cultural resources if it would do any of the following:

a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

   i) Listed or eligible for listing in the California Register, or in a local register of historical resources as defined in PRC Section 5020.1(k), or

   ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the Lead Agency shall consider the significance of the resource to a California Native American Tribe.

3.18.5 Direct and Indirect Effects

3.18.5.1 Approach to Analysis

To evaluate the Project's potential impacts on significant tribal cultural resources, a Native American outreach effort was conducted by the CPUC. The purpose of this effort was to identify any tribal cultural resources that may be present within the Project area and to determine if these resources would be significantly impacted by the Project.

Project-related ground-disturbing activities, including demolition, excavation, grading, trenching, vegetation clearance, the operation of heavy equipment, or other surface and sub-surface disturbance could impact tribal cultural resources that are also archaeological resources. These activities could result in damage or destruction of surficial or architectural resources and buried archaeological resources, including pre-contact and historic materials or human burials.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.18.5.2 Impact Assessment

Whether the Project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

1. **Listed or eligible for listing in the California Register, or in a local register of historical resources as defined in PRC Section 5020.1(k); or,**
2. **A resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the Lead Agency shall consider the significant of the resource to a California Native American Tribe.**

Impact 3.18.1: The Project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe. (*Significant and Unavoidable*)

Construction

Project construction would impact tribal cultural resources, as defined in PRC Section 21074. Based on the NAHC SLF search, records search, pedestrian survey results, and Native American consultation, previously recorded cultural resources with human remains have been identified in and adjacent to the Project area. Section 3.5, *Cultural Resources,* presents information regarding

these resources. These resources are also considered tribal cultural resources. Therefore, the Project is likely to impact tribal cultural resources listed or eligible for listing in the California Register or a local register of historical resources as defined in PRC Section 5020.1(k).

Based on the archaeological sensitivity analysis presented in Section 3.5, *Cultural Resources*, there is a high potential for unrecorded subsurface archaeological materials to be uncovered during the proposed ground-disturbing activities, particularly in areas that are undisturbed. If any previously unrecorded archaeological resource and/or human remains were identified during Project ground-disturbing construction activities and were found to qualify as a tribal cultural resource pursuant to PRC Section 21074(a)(1) (determined to be eligible for listing in the California Register or a local register of historical resources), any impacts of the Project on the resource or human remains could be potentially significant.

To reduce potential impacts on undocumented archaeological resources that could qualify as tribal cultural resources, LSPGC has proposed the implementation of **APM TCR-1: WEAP Training** and **APM TCR-2: Native American Monitoring**. These APMs would require tribal cultural resources awareness training for construction personnel and Native American monitoring during ground-disturbing activities associated with the Project when within 100 feet (30 meters) of previously recorded, pre-contact, ethnohistoric, or tribal cultural resources. Additionally, LSPGC APMs and PG&E BMPs (which would only be applicable to PG&E's scope of work for the Project [i.e., modifications at the existing PG&E San Jose B and Metcalf substations]), identified in Section 3.5, *Cultural Resources*, would require the following during Project implementation:

- Additional surveys (**APM CUL-4: Cultural Resources Inventory**).
- Cultural resources awareness training (**APM CUL-1: WEAP Training** and **PG&E BMP CULT-1**).
- Flagging and avoidance of known resources (**PG&E BMP CULT-4: Flag and Avoid Known Resources**).
- Archaeological and Native American monitoring (**APM CUL-2: Archaeological and Native American Monitoring** and **PG&E BMP CULT-2: Archaeological and Native American Monitoring**).
- Protocols to follow in the event of an inadvertent discovery of cultural resources (**APM CUL-2** and **APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources**; **PG&E BMP CULT-2** and **PG&E CULT-3: Inadvertent Discovery**)
- Protocols to follow in the event of an inadvertent discovery of human remains (**APM CUL-5: Unanticipated Discovery of Human Remains** and **PG&E BMP CULT-5: Human Remains**).

Although APM TCR-1 and APM TCR-2 would potentially reduce impacts on tribal cultural resources through proactive awareness and avoidance, APM TCR-2 contradicts the legal requirements regarding the treatment of human remains under PRC Sections 5097.98 and 5097.99, as well as Health and Safety Code Section 7050.5, because the treatment plan in the event of human remains is determined by the Most Likely Descendant (MLD), who is designated

by the NAHC following the discovery of Native American human remains. It is not possible to determine who the MLD will be for human remains identified during Project construction before a discovery is made. Therefore, impacts related to this criterion could be potentially significant.

To address issues with APM TCR-2, and to reduce potential impacts on unknown tribal cultural resources, implementation of **LSPGC Mitigation Measure 3.5-1: Cultural Resources Management Plan (CRMP)** requires that an archaeological testing and data recovery program be developed and implemented that identifies areas of archaeological sensitivity and appropriately outlines data recovery of cultural materials in the Project area. Additionally, the CRMP will include a plan to support APM TCR-2 that defines the intensity and frequency of archaeological and tribal monitoring. This would enhance the monitoring requirements in APM TCR-2, which only requires monitoring within a 100 feet buffer of known or newly discovered resources.

Additionally, LSPGC would comply with Government Code Section 27460 et seq., which requires ground-disturbing activities to halt until the County Coroner can determine whether the remains are subject to the provisions of Section 27491 of the Government Code and any other related provisions of law concerning the investigation of the circumstances, manner, and cause of death, and the required recommendations concerning the treatment and disposition of the human remains have been made. Pursuant to Health and Safety Code Section 7050.5, the coroner shall make a determination within 48 hours of notification of the discovery of the human remains. If the coroner determines that the remains are not subject to their authority and recognizes or has reason to believe that they are those of a Native American, the coroner shall contact the NAHC within 24 hours.

To address potential impacts to tribal cultural resources that are also archaeological resources within the PG&E component of the Project (existing PG&E substation modifications), **PG&E Mitigation Measure CUL-3.5-1: Cultural Resources Treatment Plan (CRTP)** requires that PG&E prepare and implement a cultural resources treatment plan that outlines the procedures in the event that contributing elements of known historical resources are identified during PG&E Project construction. In addition, the CRTP will include a plan to support PG&E BMP CULT-2 that defines the intensity and frequency of archaeological and tribal monitoring on the components of the Project implemented by PG&E.

Operation and Maintenance

The Project's operation and maintenance would not impact tribal cultural resources because no ground disturbance would occur at depths greater than those reached during construction.

> **Mitigation**: Implement LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1.
>
> **LSPGC Mitigation Measure 3.5-1: LSPGC Cultural Resources Management Plan (CRMP)**
>
> - The CPUC, LSPGC, consulting Native American representative(s), and a Secretary of the Interior-qualified archaeologist shall determine whether preservation in place of significant cultural resources is feasible. Consistent with CEQA Guidelines Section 15126.4(b)(3), this may be accomplished through planning construction to

avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If it is determined that preservation in place is not feasible, data recovery through archaeological investigations shall be completed.

- LSPGC shall retain a Secretary of the Interior-qualified archaeologist, in consultation with consulting Native American representative(s), to prepare and implement a Cultural Resources Management Plan (CRMP). The CRMP shall include a treatment program to further define cultural constituents, define further treatment locations, and determine whether cultural materials contribute to the significance of known cultural resources. For significant contributing elements, the Secretary of the Interior-qualified archaeologist, in consultation with consulting Native American representative(s), shall conduct a data recovery program as outlined in the CRMP. The CRMP will include how the data recovery program would preserve the significant information the resource is expected to contain. Treatment would consist of (but would not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim of targeting the recovery of important data contained in the portion of the significant resource to be impacted by the Project. The CRMP shall include provisions for analysis of data in a regional context; reporting of results within a timely manner and subject to review and comments by the consulting Native American representative(s); disposition of resources acceptable to the consulting Native American representative(s); and dissemination of final confidential reports to the Northwest Information Center of the California Historical Resources Information System.
- The LSPGC CRMP will also include a monitoring plan. The monitoring plan will include, specifically, where monitoring will be completed and under what circumstances based on soil types, geology, distance to known sites, and other factors; person(s) responsible for conducting monitoring activities, including consulting Native American representative(s); how the monitoring shall be conducted and the required format and content of monitoring reports; schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports; protocol for notifications in case of encountering cultural resources, as well as methods of dealing with the encountered resources (e.g., collection, identification, curation); and the methods to ensure security of cultural resources sites. During the course of the monitoring, the archaeologist and consulting Native American representative(s) may adjust the frequency—from continuous to intermittent—of the monitoring based on the conditions and professional judgment regarding the potential to impact resources, with approval of the CPUC.
- The LSPGC CRMP will be submitted to the CPUC for approval prior to implementation as well as all subsequent reports, plans, and resource documentation resulting from implementation of the CRMP.

PG&E Mitigation Measure 3.5-2: PG&E Cultural Resources Treatment Plan (CRTP)

- The CPUC, PG&E, consulting Native American representative(s), and a Secretary of the Interior-qualified archaeologist, shall determine whether preservation in place of significant cultural resources is feasible. Consistent with CEQA Guidelines Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If

it is determined that preservation in place is not feasible, data recovery through archaeological investigations shall be completed.

- PG&E shall retain a Secretary of the Interior-qualified archaeologist, in consultation with consulting Native American representative(s), to prepare and implement a Cultural Resources Treatment Plan (CRTP). The CRTP shall include a plan to treat all cultural materials identified during construction that are part of contributing elements of historical resources. The purpose of the treatment program will be to identify the procedures in the event that significant cultural material is found, define the Tribal engagement procedures, and identify a place for materials to be safely stored, if needed, until they can be reburied or treated in accordance with the Tribe, if the materials are indigenous. Treatment could consist of (but would not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim of targeting the recovery of important data contained in the portion of the significant resource to be impacted by the Project. The CRTP shall include provisions for analysis of data in a regional context; reporting of results within a timely manner and subject to review and comments by the consulting Native American representative(s); disposition of resources acceptable to the consulting Native American representative(s); and dissemination of final confidential reports to the Northwest Information Center of the California Historical Resources Information System.
- The CRTP will also include a monitoring plan. The monitoring plan will include specifically, where monitoring will be completed and under what circumstances based on soil types, geology, distance to known sites, and other factors; person(s) responsible for conducting monitoring activities, including consulting Native American representative(s); how the monitoring shall be conducted and the required format and content of monitoring reports; schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports; protocol for notifications in case of encountering cultural resources, as well as methods of dealing with the encountered resources (e.g., collection, identification, curation); and the methods to ensure security of cultural resources sites. During the course of the monitoring, the archaeologist and consulting Native American representative(s) may adjust the frequency—from continuous to intermittent—of the monitoring based on the conditions and professional judgment regarding the potential to impact resources.
- The PG&E CRTP will be submitted to the CPUC for approval prior to implementation as well as all subsequent reports, plans, and resource documentation resulting from implementation of the CRTP.

Significance after Mitigation: Implementation LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1, and the previously referenced government sections regarding human remains would help ensure impacts associated with the discovery of any tribal cultural resources, if identified during Project construction, would be reduced. However, complete mitigation is unattainable, therefore, impacts to tribal cultural resources are **significant and unavoidable**.

3.18.6 Cumulative Effects Analysis

3.18.6.1 Criterion a/b)

The geographic scope for the cumulative effects on tribal cultural resources includes projects in the Santa Clara Valley that would also involve excavation or similar ground disturbances. These activities may occur in locations with previously recorded or unknown archaeological resources, which could also be considered tribal cultural resources. Additionally, other types of tribal cultural resources, such as features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe, are also included. Cumulative projects could have a significant impact on both recorded and unrecorded archaeological resources given the amount of construction-related ground disturbance that could occur.

Impact C.3.18.1: The Project, in combination with the cumulative projects, would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe. (*Significant and Unavoidable*)

The potential impacts of the Project, combined with similar impacts from other current and probable future projects in the vicinity, could result in a significant cumulative impact on tribal cultural resources. The Project's contribution to this impact could be cumulatively considerable, as described previously. Compliance with existing regulations and implementation of Mitigation Measure CUL-1, APM TCR-1, and APM TCR-2, reduces the potential impact related to the discovery of tribal cultural resources, but the level of impact would still be **significant and unavoidable**.

Cumulative projects in the vicinity would also have similar types of mitigation measures to protect tribal cultural resources. However, because the Project's impact would be significant and unavoidable, with the implementation of LSPGC Mitigation Measure 3.5-1 and PG&E Mitigation Measure 3.5-1, the Project's contribution to cumulative impacts to tribal cultural resources would still be considerable, and the impact would be **significant and unavoidable**.

3.18.7 References

NAHC (Native American Heritage Commission). 2024. Email from Andrew Green (NAHC) to Ashleigh Sims (Environmental Science Associates). Sacred Lands File. July 17, 2024.

3.19 Utilities and Service Systems

This section evaluates potential impacts of the Project on utilities and service systems. It presents information about the environmental and regulatory settings and identifies the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

During the scoping period for the EIR, written and oral comments were received from agencies, organizations, and the public. These comments identified various questions about the Project and suggestions related to the EIR. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to utilities and service systems for the Project.

3.19.1 Environmental Setting

The study area for this analysis includes the service areas of the utility or service systems that would provide service to the Project boundary.

3.19.1.1 Water Supply

Table 3.19-1, *Project Area Projected Water Supply***,** presents the Project area's projected water supply per water supplier for the years 2025, 2030, and 2035. These water suppliers are discussed further below.

TABLE 3.19-1
PROJECT AREA PROJECTED WATER SUPPLY (ACRE-FEET)

Water Supplier	2025	2030	2035
Santa Clara Valley Water District (county-level)	446,000	518,000	640,000
San José Municipal Water (city-level)	25,856	29,612	33,622
San Jose Water Company (city-level)	44,201	44,275	44,629
Great Oaks Water Company (city-level)	11,839	12,680	12,680
Total	**527,896**	**604,567**	**730,931**

NOTE:
a. Projected water supply is based on reasonably available volume.
SOURCE: City of San José 2021; Great Oaks Water Company 2021; SJW 2021; Valley Water 2021.

Santa Clara County

The Project boundary is located within the Santa Clara Groundwater Basin, which has been managed by Santa Clara Valley Water District (Valley Water) since 1929 (Valley Water 2024a). Santa Clara County is served by Valley Water, and the city of San José is served by the San José Municipal Water System (Muni Water), San Jose Water (SJW), and the Great Oaks Water Company (Great Oaks Water). Water supply for Valley Water comes from a variety of sources, including imported water, groundwater, and purified water through the Silicon Valley Advanced Water Purification Center (Valley Water 2025a).

Imported water meets approximately 55 percent of Santa Clara County's water needs, which is conveyed to Santa Clara County through the State Water Project, Central Valley Project, and San Francisco's Hetch Hetchy System (Valley Water 2025b). In 2023, 42 percent of Santa Clara County's water was provided through groundwater (Valley Water 2025b). Valley Water's 13 retailers in Santa Clara County include: California Water Service Company, SJW, Muni Water, Great Oaks Water, Purissima Hills Water District, Stanford University, and the cities of Gilroy, Milpitas, Morgan Hill, Mountain View, Palo Alto, Santa Clara, and Sunnyvale (Valley Water 2025c).

Santa Clara Valley Water District

Founded in 1929, Valley Water is a special district that provides water resources management for Santa Clara County. Valley Water manages 10 dams and surface water reservoirs, 3 water treatment plants, an advanced recycled water purification center, nearly 276 acres of groundwater recharge ponds, and more than 275 miles of streams (Valley Water 2021). As noted above, Valley Water's water supply comes from a variety of sources, including imported water, groundwater, and purified water through the Silicon Valley Advanced Water Purification Center (Valley Water 2025a).

In 2021, the calculated countywide average water annual water use was approximately 310,000 acre-feet (AF) per year, compared to the actual water use of approximately 306,000 AF per year in 2020. Projected water supplies for Valley Water are shown above in Table 3.19-1.

City of San José

Three potable water suppliers serve the city of San José: Muni Water, SJW, and Great Oaks Water. Muni Water is owned and operated by the city of San José, while SJW and Great Oaks Water are privately owned. The Project spans across all three of these providers' service areas. For 2023, the city of San José reported that the residential water demand was approximately 64.56 gallons per person per day (City of San José 2025a).

San José Municipal Water

The Muni Water System is a city-owned water utility system that has served customers since 1962, particularly the communities of North San José, Alviso, Evergreen, Edenvale, and Coyote Valley (City of San José 2024a). In 2020, Muni Water provided water service to approximately 130,000 customers, which is approximately 12 percent of the city of San José's population (City of San José 2021). Muni Water relies on water supply from San Francisco Public Utilities Commission's Hetch Hetchy System, treated surface water from Valley Water, groundwater from the Santa Clara Groundwater Basin, and recycled water from the South Bay Water Recycling system (City of San José 2024a).

In 2020, water use for the Muni Water service was 17,456 AF of potable water and 4,097 AF of recycled water, totaling 21,553 AF (City of San José 2021). Projected water supplies for the Muni Water System service area are shown above in Table 3.19-1.

San Jose Water Company

SJW was founded in 1866 and serves over one million people across 145 square miles in the greater San José metropolitan area through 231,000 service connections (SJW 2021). SJW's

water supply is sourced from a combination of groundwater, surfaced water purchased from Valley Water, and treated local water. Purchased or imported water, groundwater, local surface water, and recycled water make up 52 percent, 43 percent, 3 percent, and 2 percent, respectively, of SJW's water supply (SJW 2021).

The type of water a customer receives depends on their location. Customers who live in central San José primarily receive groundwater, while customers who live in parts of the cities of Cupertino, Saratoga, Campbell, and east of U.S. Highway 101 and South San José primarily receive imported surface water from Valley Water. In contrast, customers who live in the Santa Cruz Mountain districts primarily receive locally treated mountain surface water (SJW 2025).

In 2020, the total water usage in the SJW service area was 40,391 AF, which includes potable, non-potable, and recycled water. Residential use accounted for approximately 75 percent, commercial/industrial/institutional use made up 18 percent, and other uses, such as landscape, resale, and portable meter, constituted 7 percent (SJW 2021). Projected water supplies for the SJW service area are shown in Table 3.19-1.

Great Oaks Water Company

Great Oaks Water currently serves 20,000 customers in the communities of Blossom Valley, Santa Teresa, Edenvale, Coyote Valley, and Almaden Valley since the early 1960s (Great Oaks Water 2025). Great Oaks Water does not purchase treated water or use surface water in its service area, and only sources water from their 20 groundwater wells (Great Oaks Water 2021). Great Oaks Water expects adding at least one groundwater well during the 2025–2026 timeframe (Great Oaks Water 2021).

In 2020, the total water usage in the Great Oaks Water service area was 3,634 AF (Great Oaks Water 2021). Projected water supplies for the Great Oaks Water service area are shown in Table 3.19-1.

3.19.1.2 Wastewater

The Project area is served by the San José–Santa Clara Regional Wastewater Facility (RWF). Originally built in 1956, the San José–Santa Clara RWF is the largest tertiary-level treatment facility in the western United States (San José–Santa Clara RWF 2025). The San José–Santa Clara RWF serves 1.4 million residents and over 17,000 businesses across eight cities and four sanitation districts, including the cities of San José, Santa Clara, and Milpitas, Cupertino Sanitary District, West Valley Sanitation District, County Sanitation Districts 2–3, and Burbank Sanitary District (City of San José 2025b). The San José–Santa Clara RWF treats an average of 110 million gallons of wastewater per day, with a capacity of up to 167 million gallons per day (City of San José 2025b).

3.19.1.3 Stormwater

The city of San José and Santa Clara County is responsible for stormwater drainage within its jurisdiction. Santa Clara County is divided into 13 main watersheds, and all creeks and rivers in Santa Clara County drain either north to San Francisco Bay or south to the Pajaro River (which

eventually flows to the Monterey Bay) (Santa Clara Couty 2025a). When water flows into a storm drain, drainage ditch, or creek, it will eventually flow into one of these two major water bodies (Santa Clara Couty 2025a).

San José's storm sewer system, also known as the Municipal Separate Storm Sewer System, includes inlets (storm drains) and gutters along streets, pipes, and outfalls where stormwater enters the waterbody (City of San José 2025c). The city of San José has six major watersheds, all of which drain to southern San Francisco Bay. Within these watersheds, approximately 32,000 storm drain inlets receive runoff from surrounding urban areas into the storm drain system where it is carried and discharged to a creek, river, or the San Francisco Bay (City of San José 2019).

San José is a member of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), which consists of 13 cities and towns in Santa Clara Valley, Santa Clara County, and Valley Water. They share a common National Pollutant Discharge Elimination System permit to discharge to the South San Francisco Bay (SCVURPPP 2025). This permit was reissued in 1995, 2001, 2009, and 2015 (SCVURPPP 2025). The stormwater drainage system for these cities, consisting of curb inlets that collect and channel surface water, discharges via gravity outfalls, underground pipelines, and pump stations into three ephemeral creeks: Calabazas, Saratoga, and San Tomas Aquino Creek. These channelized creeks then direct flow into the San Francisco Bay.

3.19.1.4 Solid Waste Management

Several solid waste disposal facilities could serve the Project. Disposal facilities for nonmetallic recyclable materials and nonrecyclable materials are available at the Guadalupe Sanitary Landfill (south of the city of San José), Kirby Canyon Landfill (north of the city of Morgan Hill), Newby Island Sanitary Landfill (northwest of the city of Milpitas), Corinda Los Trancos Landfill, also known as Ox Mountain Landfill (east of the city of Half Moon Bay), or another approved facility. All of these waste treatment sites accept construction and demolition debris. Project construction waste would be disposed of properly and in accordance with all applicable federal, state, and local laws regarding solid and hazardous waste.

As identified in Section 2.8.11, *Waste Generation and Management*, sites that could serve the Project are listed in **Table 3.19-2**, *Solid Waste Generation Disposal Sites***.**

3.19.1.5 Natural Gas and Electricity

PG&E provides electricity and natural gas to unincorporated areas of Santa Clara County and the city of San José (PG&E 2014a, 2014b). Numerous existing distribution and transmission lines in the Project's vicinity are owned by PG&E. These distribution and transmission lines originate from the following existing PG&E substations: San Jose A, San Jose B, Stone, Evergreen, Piercy, and Edenvale. The voltages of these distribution, subtransmission, and transmission lines range from 12-kilovolt (kV), 21 kV, 60 kV, 115 kV, 230 kV, and 500 kV. Existing transmission lines above 50 kV that occur near the Project boundary is shown in **Figure 3.19-1***, Existing Transmission Lines along the Project Alignment*.

TABLE 3.19-2
SOLID WASTE GENERATION DISPOSAL SITES

Landfill (SWIS Number)	Location	Total Maximum Permitted Capacity (cy)	Remaining Capacity (cy)	Estimated Date to Close	Waste accepted
Guadalupe Sanitary Landfill (43-AN-0015)	15999 Guadelupe Mines Road San José, CA 95120	28,238,855	7,518,220 as of 01/26/2023	12/31/2044	Green materials, industrial, mixed municipal, C&D
Kirby Canyon Landfill (43-AN-0008)	910 Coyote Creek Golf Drive Morgan Hill, CA 95037	36,400,000	16,191,600 as of 07/31/2015	12/31/2059	Green materials, tires, C&D, industrial, mixed municipal
Newby Island Sanitary Landfill (43-AN-0003)	1601 Dixon Landing Road, Milpitas CA 95035	57,500,000	16,400,000 as of 01/31/2020	01/01/2041	Contaminated soil, tires, green materials, sludge, mixed municipal, industrial, C&D
Corinda Los Trancos/Ox Mountain Landfill (41-AA-0002)	12310 San Mateo Road Half Moon Bay, CA 94019	60,500,000	22,180,000 as of 12/31/2015	01/01/2034	Tires, other designated, asbestos, sludge (Biosolids), mixed municipal, C&D

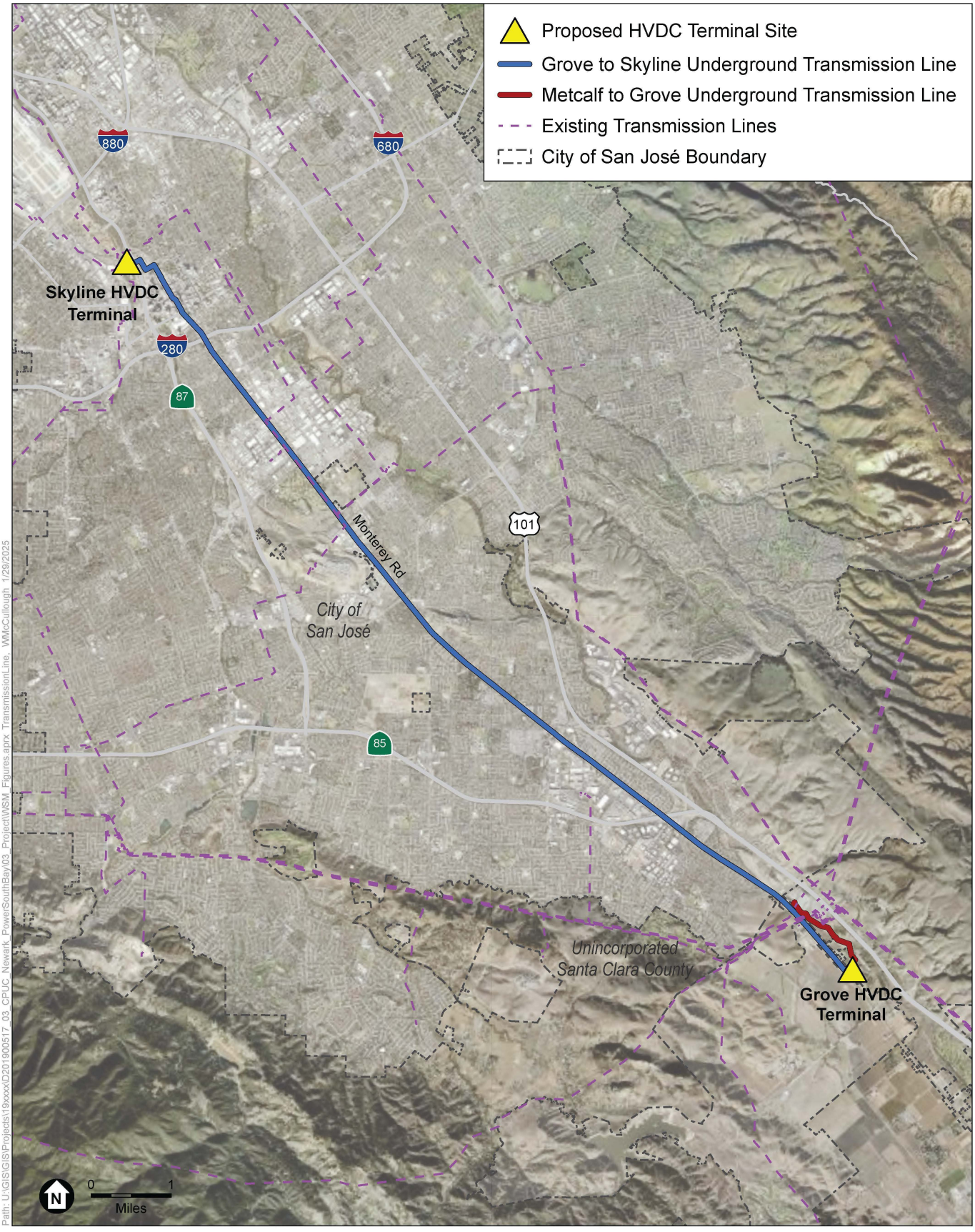
NOTES: C&D = Construction/demolition; CY = cubic yards; green materials = renewable material.
SOURCE: CalRecycle 2025a, 2025b, 2025c.

PG&E operates transmission and distribution-level natural gas lines throughout the Project area. The Project alignment would intersect approximately four natural gas transmission pipelines, including three locations along Monterey Road, at the approximate intersections of Blanchard Road, Ford Road, and Old Tully Road, and one location at the northern end of the proposed Grove to Skyline 320 kV direct current (DC) underground transmission line (Grove to Skyline 320 kV Transmission Line), along Bassett Street (Caltrans 2025). Natural gas pipelines that exist near the Project boundary are shown in **Figure 3.19-2***, Existing Pipelines along the Project Alignment.*

The presence of these natural gas lines is corroborated in more detail in a memorandum prepared by ARK Engineering & Technical Services on behalf of LSPGC documenting potential electromagnetic effects attributable to the Project (see **Appendix F**, *Preliminary Induction Study*). This memorandum identified the following:

- One gas pipeline crossing along Coyote Ranch Road would be intersected by the Project's proposed Metcalf to Grove 500 kV alternating current (AC) underground transmission line (Metcalf to Grove 500 kV Transmission Line).
- One natural gas pipeline is in proximity to the proposed Skyline high-voltage direct current (HVDC) Terminal. However, the Project is not expected to pose a shock hazard due to stray DC currents.

Although this memorandum acknowledged the likely presence of water lines in the Project area, it did not identify specific water lines.



SOURCE: ESA, 2024; CEC, 2024

Power Santa Clara Valley Project

Figure 3.19-1
Existing Transmission Lines along the Project Alignment

SOURCE: ESA, 2024; NPMS, 2024

Power Santa Clara Valley Project

Figure 3.19-2
Existing Pipelines along the Project Alignment

3.19.1.6 Telecommunications

Communications, including telephone service, cable television service, and internet, in the Project's vicinity include, but is not limited to, Xfinity, AT&T, Verizon, T-Mobile, EarthLink, Astound Broadband, HughesNet, Viasat, San Jose Networks, and General Telcom (CableTV 2025; The Prime Buyer's Report 2025).

3.19.2 Regulatory Setting

3.19.2.1 Federal

No federal regulations related to utilities and service systems govern the Project.

3.19.2.2 State

California Government Code

Section 4216 of the California Government Code protects underground structures during excavation. This law requires state and local agencies to contact a regional notification center before excavating for subsurface installations to identify and protect existing underground infrastructure, such as pipelines, conduits, ducts, or wires (California Legislative Information 2025a). Under this law, excavators must delineate the planned excavation site and contact their regional notification center at least 2 working days before excavations (California Legislative Information 2025a). The Project site's regional notification center is Underground Service Alert (USA) North 811. USA North 811 notifies utility providers of existing underground installations within 1,000 feet of planned excavation.

California Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (Assembly Bill 939; Public Resources Code Section 40050 et seq.) requires each jurisdiction in the state to divert at least 50 percent of its waste away from landfills through either waste reduction or recycling. Diversion includes waste prevention, reuse, and recycling. This law led to the creation of the California Department of Resources Recycling and Recovery (CalRecycle), which oversees and assists local governments in their development and implementation of plans to comply with the law and subsequent legislation (CalRecycle 2025e). Under this law, jurisdictions must submit solid waste planning documentation to CalRecycle. The Integrated Waste Management Act also established a comprehensive statewide system of permitting, inspections, and maintenance for solid waste facilities, and authorized local jurisdictions to impose fees based on the types and amounts of waste generated. The Integrated Waste Management Act has guided the preparation of the waste management plans for Santa Clara County, including the city of San José, as described below.

California Code of Regulations Title 22, Division 4.5

California Code of Regulations (CCR) Title 22 outlines various standards and requirements for the identification, collection, transport, disposal, and recycling of hazardous and universal wastes. *Universal waste,* as defined in CCR Title 22, Section 66273.9, includes batteries, electronic devices, mercury-containing equipment, lamps, cathode ray tubes, and aerosol cans. The

regulations mandate recycling, recovery, the return of spent items to the manufacturer, or disposal at an appropriately permitted facility. Title 22, Division 4.5 also sets forth restrictions and standards relevant to waste destination facilities and provides authorization requirements for various waste handlers. Title 22 includes California's Universal Waste Rule and other additional waste handling and disposal requirements.

California Code of Regulations Title 27

CCR Title 27 defines regulations for the treatment, storage, processing, and disposal of solid waste. The State Water Resources Control Board maintains and regulates compliance with Title 27. Compliance by the Project would be enforced by the San Francisco Bay (Region 2) Regional Water Quality Control Board.

California Urban Water Management Planning Act

The California Urban Water Management Planning Act (California Water Code Section 10610) states that each urban water supplier that provides water to 3,000 or more customers, or that provides more than 3,000 AF (approximately 980 million gallons) of water annually, must prepare an Urban Water Management Plan (UWMP) and update it every 5 years to ensure that its water service is sufficiently reliable to meet the needs of its various categories of customers during normal, dry, and multiple dry years (California Legislative Information 2025b). The law describes the contents of UWMPs and requires each agency's UWMP to assess the reliability of the agency's water resources over a 20-year planning horizon.

The California Legislature enacted additional requirements for 2020 UWMPs, updating the 2015 UWMP guidance. Significant changes include an assessment of water reliability for 5 consecutive dry years, a drought risk assessment, evaluation of seismic risk, energy use information, water loss reporting for 5 years, water shortage contingency plan, groundwater supplies coordination, and lay description.

California Green Building Standards

In January 2010, the State of California adopted the California Green Building Standards Code (CALGreen Code), which established mandatory green building standards for all buildings in California. The CALGreen Code was most recently updated in January 2023. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and indoor environmental quality.

These standards include the following mandatory set of measures, as well as more rigorous voluntary guidelines, for new construction projects to achieve specific green building performance levels:

- Reduce indoor water use by 20 percent.
- Reduce wastewater by 20 percent.
- Recycle and/or salvage 65 percent of nonhazardous construction and demolition (C&D) debris, or meet the local C&D waste management ordinance, whichever is more stringent.

(See San José–specific CALGreen Code requirements in the discussion of local regulatory framework under *City of San José Municipal Code Section 9.10.2480.*);

- Provide readily accessible areas for recycling by occupants.

Pursuant to Section C3-30 of the Santa Clara County Municipal Code, Santa Clara County has adopted the 2022 California Green Building Standards Code (i.e., incorporation by reference) (Santa Clara County 2025b). The city of San José requires 75 percent diversion of nonhazardous C&D debris for projects that qualify under the CALGreen Code, which is more stringent than the state requirement of 65 percent (City of San José 2025d). These are further discussed in Section 3.19.2.3, *Local*.

California Public Utilities Commission General Order 128

CPUC General Order 128 requires the underground electrical supply and communications systems providers to ensure adequate service and secure safety to "all persons engaged in the construction, maintenance, operation or use of underground systems and to the public in general" (CPUC 2024). CPUC General Order 128 requirements apply to all underground electrical supply systems used in connection with public utility service; when located in buildings, the vaults, conduit, pull boxes or other enclosures for such systems shall also meet the requirements of any statutes, regulations or local ordinances applicable to such enclosures in buildings; (b) to all underground communication systems used in connection with public utility service located outside of buildings (CPUC 2024).

3.19.2.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to utilities and service systems that would otherwise be relevant to the Project and alternatives are described below.

Santa Clara County General Plan

The Santa Clara County General Plan (Santa Clara County 1994) includes the following policies related to utilities and service systems that are relevant to the Project:

> ***Policy C-GD 4*:** Development activity should minimize degradation of the natural environment and avoid diminishment of heritage resources.
>
> ***Policy C-GD 7*:** Urban expansion should be planned on a staged, orderly basis, consistent with applicable plans (e.g. city, County, countywide plans) and the availability of needed urban services and facilities. The discouragement of expansion of cities' Urban Service Areas should be recommended to the LAFCO.
>
> ***Policy C-RC 63*:** Santa Clara County shall strive to reduce the quantity of solid waste disposed of in landfills and to achieve or surpass the requirements of state law (the law currently specifies 25% reduction of landfilled wastes by 1995, and 50% by 2000).

***Policy C-RC 65*:** All solid waste management services and facilities shall conform to applicable federal, state, and local regulations and standards.

***Policy C-RC 71*:** Potential application for waste transformation and energy generation technologies should be explored and encouraged.

***Policy R-GD 6*:** Urban types and levels of services shall not be available outside of cities' Urban Service Areas from either public or private service providers.

***Policy R-GD 7*:** In rural unincorporated areas, if there is an unpreventable areawide problem which can only be solved by extension of services by special district, assessment district, or private utility, then this form of service may be approved, with the following restrictions:

- The amount of increased service capacity will not exceed the identified need and the planned level of development; and
- The level of service capacity is consistent with that of other services provided or planned for the area.

***Policy SC 5.0*:** Infrastructure needs should be identified and their development coordinated to minimize costs and to support achievement of community goals.

***Policy SC 5.1*:** Cities should provide an urban level of services and facilities to urban areas. Strategies that help achieve this objective and are already partially or fully in use Include:

- Requiring that the timing and location of future development be based upon the availability of public services and facilities,
- Requiring new development to pay all of the incremental public service costs which it generates, and,
- Requiring developers to dedicate land and/or pay to offset the costs relating to the provision and expansion of public services and facilities.

***Policy SC 7.0*:** New development should not exceed the water supply, and management of water should be made more efficient through appropriate means, such as watershed protection, percolation, reclamation, and conservation.

City of San José General Plan

The *Envision San José 2040 General Plan* (City of San José 2024b) includes the following goals and policies related to utilities and service systems that are relevant to the Project:

Goal IN-1: General Provision of Infrastructure. Provide and maintain adequate water, wastewater, stormwater, water treatment, solid waste and recycling, recycled water infrastructure to support the needs of the City's residents and businesses.

***Policy IN-1.1*:** Provide and maintain adequate water, wastewater, and stormwater services to areas in and currently receiving these services from the City.

***Policy IN-1.2*:** Consistent with fiscal sustainability goals, provide and maintain adequate water, wastewater, and stormwater services to areas in the city that do not currently receive these City services upon funding and construction of the infrastructure necessary to provide them.

***Policy IN-1.5*:** Require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

***Policy IN-1.6*:** Ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage over-sizing of infrastructure which could contribute to growth beyond what was anticipated in the *Envision General Plan*.

***Policy IN-1.9*:** Design new public and private utility facilities to be safe, aesthetically pleasing, compatible with adjacent uses, and consistent with the Envision General Plan goals and policies for fiscal sustainability, environmental leadership, an innovative economy, and quality neighborhoods.

***Policy IN-1.10*:** Require undergrounding of all new publicly owned utility lines. Encourage undergrounding of all privately owned utility lines in new developments. Work with electricity and telecommunications providers to underground existing overhead lines.

***Policy IN-1.11*:** Locate and design utilities to avoid or minimize impacts to environmentally sensitive areas and habitats.

Goal IN-3: Water Supply, Sanitary Sewer and Storm Drainage. Provide water supply, sanitary sewer, and storm drainage infrastructure facilities to meet future growth planned within the City, to assure high-quality service to existing and future residents, and to fulfill all applicable local, State and Federal regulatory requirements.

***Policy IN-3.5*:** Require mitigation for development which will have the potential to reduce downstream LOS to lower than "D", or development which would be served by downstream lines already operating at a LOS lower than "D". Mitigation measures to improve the LOS to "D" or better can be provided by either acting independently or jointly with other developments in the same area or in coordination with the City's Sanitary Sewer Capital Improvement Program.

***Policy IN-3.7*:** Design new projects to minimize potential damage due to storm waters and flooding to the site and other properties.

***Policy IN-3.9*:** Require developers to prepare drainage plans that define needed drainage improvements for proposed developments per City standards.

***Policy IN-3.10*:** Incorporate appropriate stormwater treatment measures in development projects to achieve stormwater quality and quantity standards and objectives in compliance with the City's National Pollutant Discharge Elimination System (NPDES) permit.

***Policy IN-3.11*:** Encourage the use of flood protection guidelines in development, such as those recommended by the SCVWD, FEMA, and DWR.

Goal IN-6: Telecommunications. Support the provision of state-of-the-art telecommunication services for households, businesses, institutions, and public agencies throughout the city to foster fiscal sustainability, an innovative economy, support environmental leadership, meet the needs of quality neighborhoods and advance other *Envision General Plan* goals.

***Policy IN-6.4*:** Encourage compatible collocation of telecommunication facilities. Work with utility companies to provide opportunities for siting telecommunications facilities on City-owned property and public rights-of-way.

Goal CD-1: Attractive City. Create a well-designed, unique, and vibrant public realm with appropriate uses and facilities to maximize pedestrian activity; support community interaction; and attract residents, business, and visitors to San José.

***Policy CD-1.27*:** When approving new construction, require the undergrounding of distribution utility lines serving the development. Encourage programs for undergrounding existing overhead distribution lines. Overhead lines providing electrical power to light rail transit vehicles and high-tension electrical transmission lines are exempt from this policy.

Santa Clara County Title C Section C3-30

As stated previously, pursuant to Section C3-30 of the Santa Clara County Municipal Code, Santa Clara County has adopted the 2022 California Green Building Standards Code (i.e., incorporation by reference) (Santa Clara County 2025b).

City of San José Municipal Code Section 9.10.2480

The following requirement from the City of San José Municipal Code Section 9.10.2480 is relevant to utilities and service systems and is provided for informational purposes (City of San José 2025e):

Persons applying for a permit from the City for new construction and building additions and alterations shall comply with the requirements of this Part and all required components of the California Green Building Standards Code, 24 CCR, Part 11, as amended, if its project is covered by the scope of CALGreen and other applicable requirements of the City. If the requirements of CALGreen, as amended, are more stringent than the requirements of this Part, the CALGreen requirements shall apply.

Notwithstanding any other provision to the contrary, a building permit applicant that documents the completion of a construction waste management plan in accordance with CALGreen at the following diversion levels shall be deemed in compliance with the provisions of this Part:

- *For building permit applications filed between January 1, 2011, and December 31, 2011, at a sixty percent diversion level as determined by the Director.*
- *For building permit applications filed between January 1, 2012, and December 31, 2012, at a sixty-five percent diversion level as determined by the Director.*
- *For building permit applications filed on or after January 1, 2013, at a seventy-five percent diversion level as determined by the Director.*

Santa Clara County Integrated Waste Management Plan

The Santa Clara County Integrated Waste Management Plan was approved by the California Integrated Waste Management Board in 1996 and covers the following jurisdictions: Campbell, Cupertino, Gilroy, Morgan Hill, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Mountain View, Palo Alto, San José, Santa Clara, Saratoga, Sunnyvale, and the unincorporated

areas of Santa Clara County. Elements of the plan are reviewed and revised as necessary every 5 years to ensure compliance with regulatory requirements, including accomplishing diversion of 50 percent or higher in Santa Clara County jurisdictions.

Santa Clara Valley Water District 2020 Urban Water Management Plan

The Valley Water UWMP documents information on water supply, water use, recycled water, water conservation programs, water shortage contingency planning, and water supply reliability in Santa Clara County under different scenarios (Valley Water 2021). Valley Water is a special district that provides water resources management for all of Santa Clara County. Valley Water's water system includes local water from reservoirs, groundwater, imported water, and recycled water. These water sources are used to recharge local groundwater subbasins, treated at drinking water treatment plants, released to local creeks to meet environmental needs, or delivered directly to water users. Factors, such as climate change, new regulatory requirements, and population growth, could affect the countywide water supply and demand in the future (Valley Water 2021).

City of San José 2020 Urban Water Management Plan

This document presents the City of San José's UWMP for Muni Water, the retail water supplier operated by the city of San José. The City of San José 2020 UWMP provides information on water management specific to Muni Water's service areas: North San José, Alviso, Evergreen, Edenvale, and Coyote Valley (City of San José 2021). The UWMP examines current and projected water supplies, demands, and sources; details Muni Water's water shortage contingency plan; presents a comparison of the 2020 water use target; and discusses the city's conservation efforts (City of San José 2021). The UWMP documents San José's planning efforts involved in ensuring a reliable, high-quality supply of water to the public (City of San José 2021).

San Jose Water Company 2020 Urban Water Management Plan

This document covers both the water systems that SJW manages: the SJW system and the City of Cupertino Municipal Water System, which SJW operates, maintains, and improves through a lease agreement. The SJW 2020 UWMP provides an overview of SJW's system, sources of supply, climate, population, demographics, socioeconomics, and land uses within SJW's service area, in accordance with the California Urban Water Management Planning Act (SJW 2021).

Great Oaks Water Company 2020 Urban Water Management Plan

Great Oaks Water's 2020 UWMP provides a reliable water management action plan to address changing water supply and demand conditions (Great Oaks Water 2021). The Great Oaks Water 2020 UWMP includes descriptions of past and projected water demands, water supplies, and water system reliability during a series of different water supply scenarios over a 20-year planning period (Great Oaks Water 2021). The Great Oaks Water 2020 UWMP also describes Great Oaks Water's actions that promote water conservation and includes a water shortage contingency plan to address potential water supply shortages due to droughts or other impacts to the water supply (Great Oaks Water 2021).

3.19.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility would be responsible for implementing its measures only for that part of the Project that it would own or for which it would be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the PG&E San Jose B Substation to a splice vault located at the PG&E Metcalf Substation. Specifically, at the northern end of the Project area, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the PG&E San Jose B Substation. At the southern end of the Project area, LSPGC's scope would stop at a splice vault located at the western property line of the PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the portion of the Project involving modifications within the existing PG&E San Jose B and Metcalf substations. At the PG&E San Jose B Substation, PG&E would be responsible for the work starting from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E would be responsible for the work starting from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.19.3.1 Applicant-Proposed Measures

LSPGC has developed Applicant-proposed measures (APMs) that are incorporated into LSPGC's components of the Project to reduce potential effects on utilities and service systems. The following impact analysis assumes that LSPGC would implement the following APMs as part of its portion of work for the Project.

- **APM UTIL-1: Coordination with Utilities.** LS Power shall notify all utility companies with utilities located within or crossing the Proposed Project ROW to locate and mark existing underground utilities along the entire length of the Proposed Project. Due to the linear nature of transmission line construction, utilities shall be marked in short segments at least 14 days prior to construction within said segments. No subsurface work shall be conducted that would conflict with (i.e., directly impact or compromise the integrity of) a buried utility. In the event of a conflict, areas of subsurface excavation shall be realigned vertically and/or horizontally, as appropriate, to avoid other utilities and provide adequate operational and safety buffering or relocation of the existing utility shall be coordinated with each utility owner/operator. LS Power shall coordinate with third-party utilities and shall submit the intended construction methodology to the owner of the third-party utility for review and coordination. Construction methods shall be adjusted as necessary to ensure that the integrity of existing utility lines is not compromised.

3.19.3.2 PG&E Best Management Practices and Field Protocols

No PG&E best management practices or field protocols have been proposed to specifically reduce potential utilities and service system impact impacts.

3.19.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant impact related to utilities and service systems if it would do any of the following:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

b) Have insufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

The CPUC has identified an additional CEQA impact criterion that is specific to the types of projects evaluated by the CPUC to be considered in addition to the criteria identified in Appendix G of the CEQA Guidelines. With regard to utilities and service systems, the Project would also result in a significant impact related to utilities and service systems if it would:

f) Increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts.

3.19.5 Direct and Indirect Effects

3.19.5.1 Approach to Analysis

The following discussion describes the criteria for determining the significance of impacts on utilities and service systems derived from Appendix G of the CEQA Guidelines and the CPUC Guidelines for Energy Project Applications Requiring CEQA Compliance. The criteria are used to identify direct and indirect effects on utilities and service systems from Project construction and operation. The analysis assumes implementation of the APMs described previously.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.19.5.2 Impact Assessment

Criterion a) Whether the Project would require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

The Project operation and maintenance would not require or result in new or expanded water, wastewater treatment or stormwater drainage, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Therefore, there would be no impact on water, wastewater treatment or stormwater drainage, or natural gas utilities during the operation and maintenance phase of the Project. (*No Impact*)

Potential impacts of Project construction related to the potential relocation of wastewater treatment or stormwater facilities, electric power, natural gas, and telecommunication facilities are described below.

Impact 3.19-1: The Project could require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (*Less than Significant*)

As discussed in Chapter 2, *Project Description*, the Project would construct new electrical power and telecommunication utilities and expand/modify the existing PG&E San Jose B and PG&E Metcalf substations. The environmental effects of these new structures are analyzed throughout this EIR. Other utilities, such as water, wastewater, stormwater, other electric, natural gas, and telecommunication, may be affected by the Project either directly or indirectly.

During Project construction, utilities would be avoided where practicable, but some utilities would require relocation. The exact utilities and relocation alignments are not known at this time. The proposed transmission lines would be co-located with existing utilities and designed to avoid conflicts with these existing utility systems. Furthermore, in compliance with the California Government Code, LSPGC and/or its construction contractor would identify, mark, and locate existing subsurface utilities before the start of activities that require excavation. This would entail contacting USA North 811 (or a similar service), conducting visual observations, conducting exploratory excavations (i.e., potholing), and/or using buried line-locating equipment.

If underground utilities are identified during Project construction, LSPGC would work with the owner of those utilities to determine if design changes can be made or if utility relocation would be necessary. LSPGC would also implement **APM HAZ-5: Final Induction Study and Utility Coordination** and **APM UTIL-1: Coordination with Utilities**, as outlined in Section 3.19.3, *Applicant-Proposed Measures and Best Management Practices.*

Water

Construction

Water would regularly be used for dust control in the staging areas and proposed HVDC terminal sites but less frequently used for dust control during duct bank construction. It is likely that water used for construction activities would predominantly be trucked in from a nearby off-site location provided by Valley Water, Muni Water, SJW, or Great Oaks Water. Additionally, an existing groundwater well located in the proposed Grove HVDC Terminal site that would be used for water supply during construction. During Project construction, water demand at the proposed Grove HVDC Terminal site would not exceed supplies of this existing well.

As discussed in Section 3.19.1, *Environmental Setting*, the region's water suppliers would have sufficient water supplies to serve the Project. Furthermore, water used during Project construction would be temporary and would originate from local sources that have adequate capacity to serve the needs of the Project. Additionally, water used for the Project would be used in accordance with applicable regulations and acquired permits related to water supply.

Minimal water would be necessary to facilitate the restoration of temporarily impacted areas following the completion of construction. Beyond irrigation needs during operation and maintenance, the Project would not require water sources for operation and maintenance activities, as the proposed HVDC terminal facilities would be remotely operated with no permanent workforce on-site. LSPGC personnel would be responsible for providing their own drinking water during operation and maintenance activities.

As discussed in Section 2.8.3, *Site Preparation*, the Project may require minor relocation of utilities if they cannot be avoided. Such utilities could include water pipelines. To prevent damage to water utilities, LSPGC and/or its construction contractor would contact USA North 811 (or a similar service), conduct visual observations, conduct exploratory excavations (i.e., potholing), and/or use equipment to locate buried lines. Additionally, LSPGC would implement APM HAZ-5 and APM UTIL-1, which would require coordination with utility providers. Therefore, with the implementation of LSPGC's APM HAZ-5 and APM UTIL-1, the Project would have a **less-than-significant** impact related to the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

Wastewater Treatment

Construction

Sanitary waste, dewatering effluent, drilling fluids, and stormwater runoff are the only types of liquid waste that would be generated during Project construction. Sanitary waste from self-contained portable toilets would be routinely pumped and would be transported by licensed sanitary waste services for off-site disposal at their contracted treatment, storage, and disposal facilities. Sanitary waste would be generated at a rate of 50–100 gallons per week for every 10 workers on-site. Wastewater produced during construction activities would be disposed of at licensed off-site facilities, such as the San José–Santa Clara RWF. Once constructed, the Project would be remotely operated with no permanent workforce on-site.

The region's wastewater facility (i.e., San José–Santa Clara RWF) has sufficient capacity to serve the Project. Furthermore, wastewater generated during Project construction would be temporary. Additionally, wastewater generated by the Project would be handled in accordance with applicable regulations and policies. Therefore, the Project would not require the relocation or construction of new or expanded wastewater facilities, the construction of which could cause significant environmental effects. With LSPGC's implementation of APM HAZ-5 and APM UTIL-1, the impact would be **less than significant**.

Stormwater

Construction

The Project could interfere with stormwater drainage in the Project area, either by relocating established stormwater infrastructure or by altering water drainage patterns. Specifically, the Project would require work within public rights-of-way, such as open trenching for underground construction activities, which could break up sections of concrete that may be a part of a city's stormwater infrastructure. If a significant rain event were to occur during Project construction, the temporarily deconstructed stormwater infrastructure along the proposed transmission lines may impact the overall functionality of the stormwater drainage system. However, as discussed under *Work Area Stabilization* within Section 2.8.3, *Site Preparation*, temporary work areas, terminal sites, and substation upgrade areas, including drainage, detention basins, and access roads, would be stabilized during construction with best management practices (BMPs) that would be outlined in the Project's stormwater pollution prevention plan (SWPPP). Thus, work area stabilization efforts would reduce the Project's impacts on the stormwater drainage system, specifically for the work along the alignment of the proposed transmission lines.

For each proposed HVDC terminal site, the Project would include a stormwater management system consisting of a stormwater drainage and conveyance system and a stormwater detention system. During Project construction, the proposed HVDC terminal sites, including the drainage and detention basin, would also be stabilized by LSPGC's implementation of BMPs, as discussed in Chapter 2. These BMPs would be described in the Project-specific SWPPP prepared for construction activities, in addition to the Spill Prevention Control and Countermeasure Plan. The SWPPP would be prepared before construction and would be tailored to the final approved design of the Project. The BMPs included in the SWPPP would be monitored and revised throughout the construction process as needed to respond to field conditions. Additionally, the Project would comply with applicable regulations and policies related to stormwater.

During operation and maintenance, runoff from the proposed HVDC terminal sites would be conveyed to the stormwater detention system, where it would then filter through the underlying soils (i.e., infiltration and groundwater recharge) or evaporate. No off-site stormwater system improvements are proposed (e.g., along the proposed transmission lines). Consequently, compliance with the Project-specific SWPPP and LSPGC's implementation of APM HAZ-5 and APM UTIL-1 would help to prevent or minimize a significant adverse environmental effect related to the construction, expansion, or relocation of stormwater drainage facilities. Therefore, the impact would be **less than significant**.

Electric Power

Construction

The Project would construct and operate the proposed Skyline and Grove HVDC Terminals, along with three proposed transmission lines and other associated power infrastructure. To connect the proposed HVDC terminals to the existing PG&E Metcalf and PG&E San Jose B substations, approximately 14.2 miles of underground transmission lines would be installed throughout the Project area, including the 100-foot overhead transmission tie line at the proposed Skyline HVDC Terminal. The Project's potential environmental effects from these new structures are analyzed throughout this EIR.

As indicated in Section 2.8.2, *Staging and Construction Work Areas*, temporary Project construction power would be provided via existing distribution lines near the staging areas. LSPGC would coordinate with PG&E to establish appropriate distribution connection lines at proposed Skyline and Grove HVDC Terminal sites to connect to nearby existing PG&E distribution lines. This extension of distribution power would result in the installation of wooden poles or underground transmission lines near the proposed HVDC terminal sites. These connections would be temporary and would be removed after Project completion. Temporary generators would be used as a contingency if distribution power is unavailable, and temporary mobile generators would be required during the construction of the proposed underground transmission lines.

The Project would comply with applicable regulations and policies related to electricity. The Project would not result in additional new or expanded electric power services that could lead to significant environmental effects not already analyzed as part of the Project. Therefore, with LSPGC's implementation of APM HAZ-5 and APM UTIL-1, the impacts related to electric power facilities would be **less than significant**.

Operation and Maintenance

As described in Section 2.11, *Operation and Maintenance*, Project operation and maintenance would be conducted in accordance with all applicable Federal Energy Regulatory Commission, North American Electric Reliability Corporation, the CPUC, and CAISO requirements. Operation and maintenance work would also be conducted in accordance with the National Electrical Safety Code, the National Electrical Code, Occupational Safety and Health Administration requirements, and other applicable regulations and standards. The proposed transmission lines would also follow all applicable CPUC General Orders, particularly General Order 128, which governs the construction and maintenance of underground electric lines. The Project would also comply with CAISO standards for inspection, maintenance, repair, and replacement.

Once construction is complete, the Project would not require daily staffing. LSPGC would hire one additional California-based technician to accommodate the integration and operation and maintenance of the Project. The technician would perform minor repairs, and oversee outside contractors for Project maintenance, and conduct transmission line inspections through sensors and splice vault inspections. The underground vaults would be visually and electrically inspected from within the splice vaults periodically by a crew of two or more technicians and equipment vendor experts. If issues are identified during inspections, the transmission line component would

undergo maintenance as required. PG&E would continue regular operation and maintenance activities at the PG&E San Jose B and PG&E Metcalf substations.

Project operations would not require or result in the relocation or construction of electric power, the construction or relocation of which could cause significant environmental effects. Therefore, with LSPGC's implementation of APM HAZ-5 and APM UTIL-1, the impact would be **less than significant**.

Natural Gas

Construction

The Project would not require the construction of new natural gas utilities; however, Project construction could require the relocation of natural gas pipelines. The exact location and alignment of which are not yet known. As shown in Figure 3.19-2, several natural gas pipelines are along the proposed Grove to Skyline 320 kV Transmission Line, intersecting at approximately four locations. To prevent damage to existing natural gas pipelines, LSPGC and/or its construction contractor would identify, mark, and locate existing subsurface utilities before the start of activities that require excavation.

Furthermore, LSPGC would implement APM UTIL-1 and APM HAZ-5, which ensure coordination with existing underground utility operators in the Project area. As a result of this coordination process, the Project would circumvent natural gas pipelines and would conduct minor relocation of natural gas pipelines as a last resort. With LSPGC's implementation of APM HAZ-5 and APM UTIL-1,the impact related to the relocation or construction of new or expanded natural gas facilities, the construction or relocation of which could cause significant environmental effects, would be **less than significant**.

Telecommunications

Construction

As detailed in Chapter 2, *Project Description*, the Project would include telecommunications infrastructure that would connect the proposed Skyline and Grove HVDC Terminals to each other, the existing PG&E substations, and local third-party internet providers. It is likely that these telecommunication lines would all be underground, and no overhead lines or wireless connections (e.g., antennas) are likely. Underground telecommunication paths would be installed along the proposed transmission lines to provide redundant communications. The local third-party internet connections for the proposed Skyline and Grove HVDC Terminal sites are also expected to be located underground and connect to existing telecommunication lines located adjacent to the proposed terminal sites. Thus, the proposed telecommunication lines would be installed underground, co-located with the new transmission lines, and designed to avoid conflicts with existing utilities.

To prevent damage to existing infrastructure, LSPGC and/or its construction contractor would identify, mark, and locate existing subsurface utilities before the start of activities that require excavation. This process would entail contacting USA North 811 (or a similar service), conducting visual observations, conducting exploratory excavations (i.e., potholing), and/or using equipment to locate buried lines.

Should underground utilities be identified, LSPGC would work with the owner of those utilities to determine whether design changes could be made or whether utility relocation would be necessary. Utilities would be avoided, but some utilities may require relocation.

Therefore, with LSPGC's implementation of APM HAZ-5 and APM UTIL-1, and adherence to design safety standards and protocols, the Project would not result in the relocation or construction of telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Therefore, the impact would be **less than significant**.

Operation and Maintenance

As described in Section 2.11, *Operation and Maintenance*, Project operation and maintenance would comply with all applicable Federal Energy Regulatory Commission, North American Electric Reliability Corporation, the CPUC, or CAISO requirements. Operation and maintenance work would also be conducted in accordance with the National Electrical Safety Code, the National Electrical Code, Occupational Safety and Health Administration requirements, and other applicable regulations and standards.

Once construction is complete, the Project would not be staffed daily. LSPGC would hire one additional California-based technician to accommodate the integration and Project operation and maintenance. The technician would perform minor repairs, oversee outside contractors for Project maintenance, and perform the transmission line inspections through sensors and splice vault inspections. The underground vaults would be visually and electrically inspected from within the splice vaults periodically by a crew of two or more technicians and equipment vendor experts. If issues are identified during inspections, the transmission line component would undergo maintenance as required.

Project operation would not require additional telecommunication facilities beyond the additional telecommunication lines that would be installed within the Project footprint and would require only minor maintenance activities, as needed. Therefore, the impact would be **less than significant**.

Impact Summary

The Project could require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. The Project would circumvent existing utilities and would conduct minor relocation only as a last resort. Should utilities be present in the Project area, LSPGC would implement APM UTIL-1, which would require coordination with the respective utility providers to adjust construction methods to ensure that the integrity of existing utilities is not compromised. Therefore, with implementation of LSPGC's APM UTIL-1 and APM HAZ-5, the impact would be **less than significant**.

Mitigation: None required.

Criterion b) Whether the Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Impact 3.19-2: The Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. (*Less than Significant*)

As indicated in Chapter 2, *Project Description*, and discussed in Impact 3.19-1, during Project construction, water would be used for dust control, compaction requirements, and worker use. The Project is estimated to use up to approximately 16 million gallons of water, with 12 million gallons for dust control and 4 million gallons for site development and below-grade construction. This is equivalent to approximately 50 AF during the approximate 27-month construction period. As discussed in Section 3.19.1.1, *Water Supply*, nearby water suppliers would have adequate water supplies to meet the Project's needs during normal, dry, and multiple dry years. The water supplied by each individual water supplier (e.g., Muni Water, SJW, and/or Great Oaks Water) is proportionately negligible compared to the amount of water that Project construction would need. For example, in 2025, Muni Water, SJW, and Great Oaks Water is likely to generate approximately 25,856 AF, 44,201 AF, and 11,839 AF of water, respectively. For 2030, Muni Water, SJW, and Great Oaks Water is likely to generate approximately 29,612 AF, 44,275 AF, and 12,680 AF of water, respectively. Additionally, there is an existing water supply via groundwater well on the proposed Grove HVDC Terminal site. As noted previously, Project construction would only need 16 million gallons of water, or about 50 AF.

As discussed in Impact 3.19-1, minimal water would be necessary to facilitate the restoration of temporarily impacted areas after the completion of construction. Beyond irrigation needs during operation and maintenance, the Project would not require water sources for operation and maintenance activities, as the proposed Skyline and Grove HVDC Terminals would be remotely operated with no permanent workforce on-site. LSPGC personnel would be responsible for providing their own drinking water during operation and maintenance activities.

Water use for the Project would comply with applicable regulations and policies and acquired permits. Consequently, the Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Therefore, the impact would be **less than significant**.

Mitigation: None required.

Criterion c) Whether the Project would result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

The Project would not generate wastewater during operation and maintenance. Therefore, there would be no impact related to wastewater generation during operation and maintenance. (*No Impact*)

Impact 3.19-3: The Project would not result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. (*Less than Significant*)

As discussed in Impact 3.19-1, sanitary waste, dewatering effluent, drilling fluids, and stormwater runoff are the only liquid waste that would be generated during Project construction. In particular, sanitary waste would be generated at a rate of 50 to 100 gallons per week for every 10 workers on-site (i.e., 10 gallons per week per worker). It is likely that the peak employment for the Project would be 250 workers. Although, on average, there would be less workers on any given point, conservatively assuming that there would be 250 employees during active Project construction, this would equate to approximately 2,500 gallons of generated wastewater per week, or 358 gallons per day. Once constructed, the Project would be remotely operated with no permanent workforce on-site.

Sanitary waste from self-contained portable toilets would be routinely pumped and would be transported by licensed sanitary waste services for off-site disposal at their contracted treatment, storage, and disposal facilities. Wastewater generated during construction activities would be disposed of at licensed off-site facilities, such as the San José–Santa Clara RWF. The San José–Santa Clara RWF treats an average of 110 million gallons of wastewater daily, with a capacity of up to 167 million gallons per day (City of San José 2025b). The Project's expected generation of 358 gallons of wastewater per day is negligible compared to the San José–Santa Clara RWF's average treatment of approximately 110 million gallons. For these reasons, wastewater generated during Project construction would have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. Therefore, the impact would be **less than significant**.

Mitigation: None required.

Criterion d) Whether the Project would generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

Impact 3.19-4: The Project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. (*Less than Significant*)

Solid waste generated during Project construction would primarily consist of non-hazardous waste, including wood, metal, paper, and plastic packaging. Construction debris volumes are estimated to total approximately 2,000 cubic yards (CY). Solid waste generated during Project construction would be collected at the point of creation, transported to a staging area, and then temporarily stored at a staging area as the solid waste awaits salvage, recycling, and/or disposal. Solid waste would be sorted, and recyclable and non-recyclable materials would be stored separately in the staging areas. Additionally, earthwork associated with the Project would generate approximately 143,000 CY of cut and fill, which would be hauled off-site, stockpiled, or wasted.

Construction waste would be disposed of properly and in accordance with all applicable federal, state, and local laws regarding solid waste, including, but not limited to, the California Integrated Waste Management Act of 1989, which has set reduction rates for the amount of solid waste sent to landfills. Additionally, the Project would divert C&D waste during construction in accordance with the city of San José's 75 percent waste diversion rates, as required by the San José Municipal Code Section 9.10.2480 and Santa Clara County's Integrated Waste Management Plan.

Non-recyclable construction waste would be disposed of at the Newby Island Sanitary Landfill, the Kirby Canyon Landfill, the Ox Mountain Landfill, the Guadalupe Landfill, or another approved facility (Table 3.19-2). As shown in Table 3.19-2, these surrounding landfills would have adequate capacity to meet the solid waste needs of Project construction given that construction would generate approximately 2,000 CY of debris and 143,000 CY of excavated material compared to the landfills' remaining capacities. Furthermore, each landfill is likely to remain operational beyond the Project's expected construction completion date. For these reasons, the Project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Therefore, the impact would be **less than significant**.

Mitigation: None required.

Criterion e) Whether the Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

The Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. (*No Impact*)

As discussed in Impact 3.19-4, solid waste produced during construction would be recycled or disposed of at a nearby licensed landfill. The management and disposal of solid waste would comply with all applicable federal, state, and local statutes and regulations. The Project would divert C&D waste during construction in accordance with the city of San José's and Santa Clara County's reduction statutes and regulations related to solid waste, as described previously. New structures would be constructed in compliance with the 2016 California Green Building Standards Code.

Additionally, as discussed in Section 2.12, *Decommissioning*, the Project is likely to operate indefinitely, with no currently established plans or timing for decommissioning. Neither PG&E substation is subject to decommissioning; each would retain its respective facilities. Therefore, there are no reasonably foreseeable plans for the disposal, recycling, or future abandonment of the Project facilities. The Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, there would be no impact.

Criterion f) Whether the Project would increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts.

The proposed modifications at the PG&E San Jose B and PG&E Metcalf substations would occur within and adjacent to the existing substations, which do not have structures that are subject to corrosion. Consequently, the Project's substation modifications would not increase the rate of corrosion of adjacent utility lines. Therefore, there would be no impact associated to the modifications within and adjacent to existing PG&E San Jose B and Metcalf substations. (*No Impact*)

Impact 3.19-5: The Project could increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts. (*Less than Significant with Mitigation*)

Existing transmission lines and natural gas pipelines within the Project area are shown in Figures 3.19-1 and 3.19-2 in Section 3.19.1, *Environmental Setting*.

The effects of AC on corrosion processes are of interest in several important applications: induced AC effects on pipelines co-located with electric power transmission lines; stray AC from power sources, heating elements, and welding; and electromagnetic radiation from communication systems. The severity of interference effects depends on factors, such as the electric lines' operating amperage, the distance of separation between the electric line and the pipeline, the soil's resistivity, the length of co-location, and the angle at which the electric line and the pipeline intersect. Therefore, all Project components that would be constructed close to existing utility lines could have corrosive impacts on the existing lines because of AC.

The industry standard from Section 6.6.2 of National Association of Corrosion Engineers SP21424-2018, *Alternating Current Corrosion on Cathodically Protected Pipelines: Risk Assessment, Mitigation and Monitoring*, states that AC corrosion may occur when pipeline AC density levels increase above a time-weighted average of 30 amperes per square meter. AC potentials less than 2 volts would result in AC density levels less than this limit for pipelines with typical soil resistivity measurements and would result in a less-than-significant impact (LSPGC 2025). A preliminary analysis of the Project's potential for electromagnetic interference and induced current touch potential was completed and is provided in Appendix F.

Construction

Power or other utility lines may be installed temporarily in one or more staging areas to support Project construction activities. However, these power lines and poles would be removed at the conclusion of this work. Because these additional utility lines would be would only be used during the Project's construction activities (i.e., temporary), they would not substantially increase the rate of corrosion of adjacent utility lines caused by AC impacts, as construction would not include activities that would introduce or increase electrical interference along existing pipeline facilities. Therefore, the impact would be **less than significant** during Project construction.

Operation and Maintenance

As indicated in Chapter 2, *Project Description*, based on the current design of the proposed Metcalf to Grove 500 kV Transmission Line, known existing metallic utilities in the vicinity are overhead PG&E electric distribution and transmission lines, and the existing PG&E Metcalf Substation, as well as one underground natural gas pipeline that crosses Coyote Ranch Road (ARK 2024). Assumptions based on the current design for the proposed Metcalf to Grove 500 kV Transmission Line, particularly its intersection angle (45 degrees) and its approximately 1,000-foot parallel segment, with respect to the existing natural gas pipeline, resulted in a maximum AC potential of 0.8 and 2 volts, respectively. Based on the results of Appendix F, potential impacts requiring mitigation could occur, and further analysis is required where AC potential is greater than 2 volts.

As noted in Section 3.19.1.5, *Natural Gas and Electricity*, a memorandum explaining electromagnetic effects of potential AC interference was prepared for the Project to determine potential impacts and the need for any measures to reduce any conduction-related issues, and to identify whether additional analysis is warranted. The preliminary analysis is provided in Appendix F.

To reduce impacts on existing and potentially unknown utility infrastructure attributable to AC-induced corrosion, LSPGC proposes APM-UTIL-1, which would require utility surveys to be conducted near grounding locations to identify the potential locations for pipeline corrosion or degradation of pipeline coatings. If such utilities were discovered, LSPGC would then implement APM HAZ-5 and would coordinate with utility providers and prepare a final induction study that would do the following:

- Include a detailed analysis of the known pipeline and any additional metallic pipelines or other utilities identified during utility surveys.
- Identify implementable measures to avoid corrosion potential.
- Present commitments to the implementation of those actions, including a schedule and design.

The final induction study would be submitted to the CPUC before the start of construction. Based on the inconclusive findings of the electromagnetic effects memorandum and utility location efforts to date (Appendix F), coupled with the known presence of three active natural gas lines near the proposed Grove to Skyline 320 kV Transmission Line, APM HAZ-5 does not provide assurance to the CPUC that the Project would not cause a significant corrosion impact on adjacent utility lines. Therefore, the impact would be potentially significant. **LSPGC Mitigation Measure 3.19-5: Utility Coordination and Induction Study**, is proposed to ensure that all appropriate and applicable measures would be implemented to reduce the risk of AC-induced corrosion on adjacent utilities. Implementation of LSPGC's APM UTIL-1 and Mitigation Measure 3.19-5 would ensure that impacts related to this criterion would be lessened to **less than significant**.

Mitigation: Implement LSPGC Mitigation Measure 3.19-5.

LSPGC Mitigation Measure 3.19-5: Utility Coordination and Induction Study

At least 90 days prior to the start of construction, LSPGC shall notify all municipalities, companies, and other public and private entities owning and maintaining utilities within or crossing the right-of-way of the Project and shall positively identify and confirm the location and type of any utilities present. For those identified utilities that do not pose a threat of AC-induced corrosion attributable to the Project, APM UTIL-1 shall be implemented.

For the identified natural gas pipelines, and all other utilities potentially affected by Project-related AC-induced corrosion (i.e., metallic utilities), design and construction of the Project's transmission lines shall be coordinated with the applicable utility owners to definitively locate each utility relative to the Metcalf to Grove 500 kV AC underground transmission line, determine the distance of separation between the transmission line and potentially affected utility, and determine the point of intersection and/or distance along which the Project transmission line is parallel to the utility. LSPGC shall prepare a detailed induction study for all identified existing utilities potentially affected by the Project transmission line alignments. At minimum, the study shall include, but not be limited to, a detailed analysis of the known [metallic] pipelines or other utilities identified during these utility surveys; shall identify adequate and implementable measures to avoid corrosion potential; and shall present commitments to the implementation of those actions, including a design of the AC mitigation system for any pipeline found to have an AC potential of 2 volts or greater and a schedule to implement any required AC mitigation systems. Pursuant to Section 6.6.2 of National Association of Corrosion Engineers SP21424-2018, *Alternating Current Corrosion on Cathodically Protected Pipelines: Risk Assessment, Mitigation and Monitoring*, the induction study shall demonstrate that any required mitigation system would reduce the AC potential to less than 2 volts, or an AC density level of less than a time-weighted average of 30 amperes per square meter.

No less than 60 days prior to the start of construction, LSPGC shall submit the full induction study, including the AC mitigation component, to the CPUC for review and concurrence. Once the CPUC concurrence is secured, LSPGC shall implement the AC mitigation system during construction of the Project, phased into the construction process as appropriate.

Significance after Mitigation: With implementation of LSPGC Mitigation Measure 3.19-5, the impacts related to AC-induced corrosion attributable to the Project would be less than significant because the Project would ensure that all appropriate and applicable measures would be implemented to reduce the risk of AC-induced corrosion on adjacent utilities.

3.19.6 Cumulative Effects Analysis

The geographic scope of analysis for cumulative utilities and service system impacts includes the service areas for the providers that serve the Project area. The timeframe during which the Project could contribute to utility and service system effects includes the construction and operations phases. For the purposes of cumulative analysis, the Project's operations phase is considered permanent.

The Project would be sited within an existing regional transmission system that provides electricity to the Greater Bay Area, which includes the East Bay, North Bay, South Bay, and San Francisco Peninsula. The Project itself would be located in the South Bay area. As discussed in Section 2.4.1, *Existing Utility System*, generation facilities in the South Bay area include Calpine's Metcalf Energy Center, Calpine's Los Esteros Energy Center, Calpine's Gilroy Power Units, and Silicon Valley Power's Donald Von Raesfeld Power Plant.

The Project area lies within the jurisdictional boundaries of the city of San José in Santa Clara County. Each city's respective general plan and UWMP, CCR, and local relevant websites were reviewed for regulatory information and for background information about water, gas, and electricity, and wastewater, stormwater, telecommunication, and waste management providers for the Project area.

3.19.6.1 Criterion a)

As discussed in Impact 3.19-1, the Project would not result in the permanent construction of new or expanded water facilities, wastewater facilities, such as restrooms, or the expansion of stormwater drainage or natural gas utilities beyond what is discussed in Chapter 2, *Project Description*, of this EIR. No impacts on water facilities, wastewater treatment, stormwater drainage, natural gas, or telecommunications facilities would occur during the Project's operation and maintenance phase. Consequently, cumulative impacts related to wastewater treatment, stormwater drainage, or natural gas utilities during Project operation and maintenance are not discussed further. Therefore, there would be no impact. (*No Impact)*

Impact C.3.19-1: The Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause or contribute to cumulatively significant environmental effects. (*Less than Significant*)

The Project would involve constructing new electrical power and telecommunication transmission lines and modifying the existing PG&E San Jose B and PG&E Metcalf substations. Minor relocation of existing utilities, such as gas lines, may be necessary if the new transmission lines cannot be relocated to avoid the utilities. While the Project is not anticipated to have a significant effect related to this criterion (see discussion under Impact 3.19-1), if cumulative projects within the geographic scope of this analysis require or result in the relocation or construction of new or expanded utilities and service systems, there could be potentially significant cumulative effects.

However, the Project would circumvent existing utilities, conducting minor relocation only as a last resort. For any utilities that are present in the Project area, LSPGC would implement APM UTIL-1, which would require coordination with respective utility providers. Further, the Project would not require new or expanded utility services, as existing service capacities would meet Project needs adequately. Additionally, the Project would coordinate with third party utility companies in the area when conflicts with existing utility equipment or facilities occur, as required by California Government Code Section 4216. Other projects involving ground disturbance would also be subject to this regulatory requirement and would implement similar

procedures to reduce utility conflicts during construction. At this time, it is not known whether there is an existing significant, adverse cumulative effect to which the Project could contribute.

For these reasons, the Project's incremental, less-than-significant impact, when combined with the known incremental impacts of cumulative projects, would not result in a significant cumulative impact associated with the expansion of utilities and service systems. In other words, the Project's incremental contribution, in addition to the cumulative projects, would not be cumulatively significant. Therefore, this cumulative impact would be **less than significant**.

Mitigation: None required.

3.19.6.2 Criterion b)

Impact C.3.19-2: The Project would not cause or contribute to a cumulative effect due to insufficient availability of water supplies to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. (*Less than Significant*)

As discussed in Impact 3.19-2, the Project would require approximately 16 million gallons of water during the Project's construction, while water requirements during operation and maintenance would be minimal.

To determine whether the Project's expected cumulative water requirements could be met during normal, single dry, and multiple dry years, the UWMPs in the Project area were reviewed. The review determined that the Muni Water, SJW, and Great Oaks Water would have adequate water supplies available during normal, single dry, and multiple dry years to serve the Project in addition to the area's existing and planned future water uses. As discussed under Impact 3.19-2, the Project's construction-related water consumption would be temporary, limited to the expected 27 months of construction. This demand could be met using a combination of Muni Water, SJW, and/or Great Oaks Water supplies. Recycled water may also be available to offset a portion of this water demand, as most of the water requirements relate to dust suppression and would not require potable water.

All water needs could be accommodated by existing water resources without compromising sustainable yields in the Project area. Furthermore, the Project's water demand could be supplied through a variety of sources and providers and could include recycled water. As discussed under Impact 3.19-2, the Project would only need approximately 16 million gallons of water, equivalent to about 50 AF, which is relatively nominal compared to the remaining water supply in the area after consideration of water use by existing customers. Further, water demand in the Project's service area, as discussed under Section 3.19.1.1, has been fulfilled with the area's water suppliers and is also expected to be fulfilled in the future, as provided by projected water supply calculations (see Table 3.19-1). In addition to the available and anticipated water supply in the area, it is expected that the cumulative projects, like the Project, would undergo review by local jurisdictions (e.g., public works departments) to address the cumulative projects' water needs relative to the area's available and projected water supply.

For the reasons discussed above, the Project's incremental less-than-significant impact associated with water demand, combined with the incremental impacts of cumulative projects in the relevant geographic area—where the relevant UWMPs have projected water supplies will be sufficient—would not result in an impact that would be cumulatively considerable with respect to water supply during normal, single dry, and multiple dry years. Therefore, the Project's impact would be less than cumulatively considerable, and the cumulative impact would be **less than significant**.

Mitigation: None required.

3.19.6.3 Criterion c)

Impact C.3.19-3: The Project would not 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 cumulative projected demands of the Project in addition to the provider's existing commitments. (*Less than Significant*)

As described in Impact 3.19-3, Project construction would result in a less-than-significant demand for wastewater treatment during the expected 27-month construction period. The impact would not combine with the incremental impacts of other projects identified in Section 3.0. Only minimal wastewater generation is likely during Project construction activities. Wastewater produced during construction activities would be disposed of at licensed off-site facilities, such as the San José–Santa Clara RWF, which has adequate capacity to service construction wastewater needs in addition to its existing commitments. The Project would not require the expansion of any additional wastewater facilities.

Other past, present, and reasonably foreseeable future projects in the areas served by the San José–Santa Clara RWF may generate wastewater treatment demands. However, the Project would only generate minimal wastewater during the 27-month construction period, and no long term demand would occur (e.g., during Project operation and maintenance). The wastewater treatment provider serving the Project has confirmed adequate capacity to meet the Project's projected demand alongside its existing commitments, ensuring that Project construction would not contribute to a significant cumulative effect. Furthermore, Project operation and maintenance would not generate waste such that it would create a cumulatively considerable result.

Therefore, the Project, in combination with the cumulative projects, would not have a cumulatively significant impact on this criterion, and the cumulative impact would be **less than significant**.

Mitigation: None required.

3.19.6.4 Criterion d)

Impact C.3.19-4: The Project would not cumulatively generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. (*Less than Significant*)

The geographic scope of potential cumulative impacts to landfill capacity would be the areas served by the landfills presented in Table 3.19-2. As discussed in Impact 3.19-4, the Project would generate solid waste (causing a less-than-significant impact) due to the removal and

disposal requirements for primarily nonhazardous waste, such as wood, metal, paper, and plastic packaging up to 2,000 CY and approximately 143,000 CY of excavated material after fill activities.

The Project would recycle, reuse, or otherwise divert a portion of this solid waste. The Project would comply with applicable laws, regulations, plans, and policies, such as the California Integrated Waste Management Act, as described in Section 3.19.2.2, *State*. Other projects that would be served by the same solid waste service providers as the Project would similarly be subject to applicable laws and regulations, including the Integrated Waste Management Act. Therefore, the cumulative scenario for solid waste is not expected to exceed the permitted capacity of available landfills, and the Project's incremental contribution to cumulative capacity would not be considerable. Therefore, the Project, in combination with the cumulative projects, would have a **less-than-significant** impact related to this criterion.

Mitigation: None required.

3.19.6.5 Criterion e)

As discussed previously, the Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, the Project would have no impact related to federal, state, and local solid waste management policies and regulations and so could not cause or contribute to any potential significant impact related to criterion e). (*No Impact*)

3.19.6.6 Criterion f)

Impact 3.19-5: The Project would not cause or contribute to a significant cumulative increase in the rate of corrosion of adjacent utility lines as a result of alternating current impacts. (*Less than Significant with Mitigation*)

As discussed in Impact 3.19-5, the Project's impacts on existing and potentially unknown utility infrastructure attributable to AC-induced corrosion would be reduced by conducting utility surveys near grounding locations to identify the potential for pipeline corrosion or degradation of pipeline coatings (APM UTIL-1). LSPGC would also implement APM HAZ-5 and LSPGC Mitigation Measure 3.19-5, which would involve the preparation of an induction study requiring concurrence by the CPUC on the methods of analysis, reported potential for AC-induced corrosion, and adequacy of the mitigation systems. These measures would reduce the potential impact related to this criterion to less-than-significant.

However, other past, present, and reasonably foreseeable future projects, such as those that would install AC transmission lines, could also involve the installation of new utility lines that could have a cumulative corrosive impact due to additional alternating currents. As discussed in Impact 3.19-5, LSPGC would adhere to applicable regulatory standards as necessary and as they pertain to the need for interference analysis and anti-corrosion/cathodic protection, pending final design and engineering. For example, LSPGC would comply with California Government Code Section 4216 requirements to reduce potential conflicts with existing buried utilities. Cumulative projects are expected to adhere to similar rules and regulations and could implement similar protections. Consequently, the Project, in combination with the cumulative projects, would not

contribute to a cumulatively considerable increase in the rate of corrosion of adjacent utility lines as a result of AC impacts. Therefore, the impact would be **less than significant**.

Mitigation: Implement LSPGC Mitigation Measure 3.19-5.

Significance after Mitigation: With implementation of LSPGC Mitigation Measure 3.19-5, the cumulative impacts related to AC-induced corrosion would be less than significant.

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3.20 Wildfire

This section evaluates the potential for construction, operation, and maintenance of the Project to result in impacts related to wildfire or increase the risk of wildfire in the study area. For purposes of evaluating potential impacts, the study area is defined as the footprint of all the Project components, including all areas of temporary or permanent ground disturbance, and the surrounding communities where the Project would be constructed and operated.

The CPUC received scoping comments pertaining to wildfire from the public and a representative for the Transmission, Infrastructure, and Policy Branch of Cal Advocates. **Appendix A**, *Scoping Report*, includes all comments received during the scoping period.

3.20.1 Environmental Setting

3.20.1.1 Location and Study Area

The Project would include two new high-voltage direct current (HVDC) terminals (proposed Skyline and Grove HVDC Terminals), an approximately 13-mile 320-kilovolt (kV) direct current (DC) transmission line connecting the proposed HVDC terminals (proposed Grove to Skyline 320 kV Transmission Line), a 1.2-mile 500 kV underground transmission line to connect the proposed Grove HVDC Terminal to the existing PG&E Metcalf Substation (proposed Metcalf to Grove 500 kV Transmission Line), and a 100-foot overhead transmission tie line to connect the proposed Skyline HVDC Terminal to the existing PG&E San Jose B Substation (Skyline to San Jose B 230 kV Transmission Line) (see Figure 2-1, *Project Location*). The Grove to Skyline 320 kV Transmission Line would be routed underground through urban development and public road rights-of-way (ROWs). The Project, in conjunction with the existing PG&E Metcalf and PG&E San Jose B substations, would support the existing regional transmission system that provides electricity to the South Bay sub-area within the Greater Bay Area. The Project area is located in the city of San José and unincorporated Santa Clara County.

Wildfire is defined as an unplanned, unwanted wildland fire that can result from human-made or natural causes (California Government Code Section 51177). Wildland fires affect grass, forest, and brushlands, as well as any structures on these lands, creating potential for injury, loss of life, and property damage. Wildland fire behavior is dependent upon fuels (e.g., vegetation), topography (e.g., slope, elevation, and aspect), and weather (e.g., wind, temperature, and humidity). The combination of these factors, described below, influence the degree of risk if a fire occurs.

The State of California (through the California Department of Forestry and Fire Protection [CAL FIRE]) has the primary legal and financial responsibility for the prevention and suppression of wildland fires in State Responsibility Areas (SRAs). Local Responsibility Areas (LRAs) include incorporated cities and more densely populated areas with fire protection typically provided by city fire departments, fire protection districts, counties, or joint agreements with CAL FIRE. The Project would not be located on lands located within an SRA (CAL FIRE 2024a). However, it is important to note that the San Felipe Hills (approximately 2 miles east of the proposed PG&E Metcalf Substation expansion area and proposed Grove HVDC Terminal) are classified as very high Fire Hazard Severity Zone (FHSZ) (CAL FIRE 2024a). The Project is entirely located

within an LRA and falls under the firefighting jurisdiction of the City of San José Fire Department (City of San José 2025a).

The CPUC mapped high fire-threat areas where more stringent requirements would be implemented due to the elevated risk for fires associated with utilities. The Project is not located within a CPUC-designated Fire Threat District. The nearest CPUC-designated High Fire Threat District is classified as Tier 2 and is approximately 0.5 mile northeast of the proposed PG&E Metcalf Substation expansion area and approximately 1 mile east of the proposed Grove HVDC Terminal (CPUC 2025).

For an illustration of these risk areas, see **Figure 3.20-1**, *Fire Threat Classifications*, which depicts the CAL FIRE FHSZs and CPUC-designated High Fire Threat Areas in and around the Project site.

Vegetation/Fuels

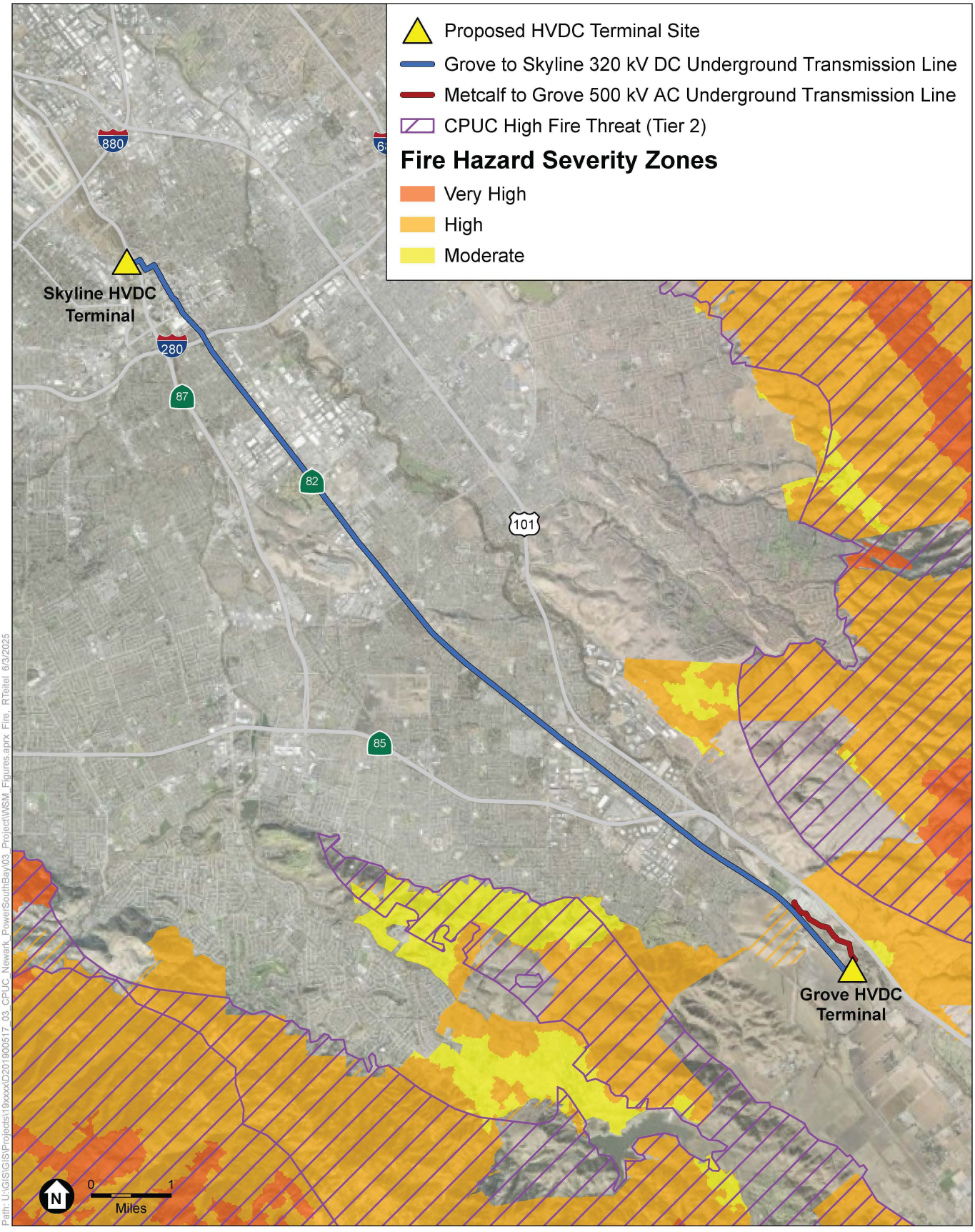
Fuel is the material that feeds fire and is a key factor in wildfire behavior. Fuel sources are diverse and include dead tree leaves, twigs, branches, and standing trees; live trees and brush; and dry grasses. Additional fuel sources can include manmade structures such as homes, buildings, and other associated combustible materials.

The Project area largely comprises developed or previously developed land. Fuel sources present on-site may be sparse and composed of invasive plant species and brush. However, the Project area is not located in a high FHSZ as determined by CAL FIRE or in an area of elevated or extreme fire-threat, as determined by the CPUC (CAL FIRE 2024a; CPUC 2025).

Topography

Topography describes the shape of the land and can include descriptions of elevation (height above sea level), slope (the steepness of the land), aspect (the direction a slope faces), and features such as canyons and valleys. Topography can strongly influence fire behavior, including how fast a fire moves through an area—fire typically moves more quickly as it travels uphill compared to either downhill or across flat terrain. As heat rises in front of the fire, it preheats and dries upslope fuels, resulting in their rapid combustion (Bennett 2017).

This region features a combination of coastal plains, steep hills, and rugged mountains, all influenced by the tectonic activity associated with the nearby San Andreas Fault and other fault systems (Santa Clara County 2023a). The Project area is largely composed of and surrounded by previously developed areas that are designated for industrial, light industrial, public, and commercial uses. Portions of the Project are located adjacent to recreational resources and open spaces, as discussed further in Section 3.11, *Land Use and Planning*, and Section 3.17, *Recreation*. For additional discussion related to landslides and slope stability, see Section 3.7, *Geology and Soils*.



SOURCE: ESA, 2024; CalFire, 2024; CPUC, 2024

Power Santa Clara Valley Project

Figure 3.20-1
Fire Threat Classifications

In the Scott-Burgan fuels modeling conducted for the Project, land type and surface conditions were analyzed within 0.5 mile of the Project components to determine their influence on wildfire behavior (LSPGC 2025). The fuels modeling found that 62.3 percent of the area within 0.5-mile components contain surface conditions that are considered absolutely non-flammable, while 11 percent contains non-flammable surface conditions with caveats, 10 percent contains surface conditions with a high wildfire hazard level, and 1.7 percent contains conditions with a low wildfire hazard level. The same modeling concluded that the average windspeed in the Project area was 7.2 miles per hour at the RHV Station and 6.8 miles per hour at the SJC Station, two weather stations near the Project site. This wind speed and pattern were consistent during monthly wind roses, which indicates predictable prevailing winds. For more details on the Scott-Burgan and Anderson fuels modeling, see Appendix 5.20 of the Proponent's Environmental Assessment (LSPGC 2025).

Wildland Urban Interface

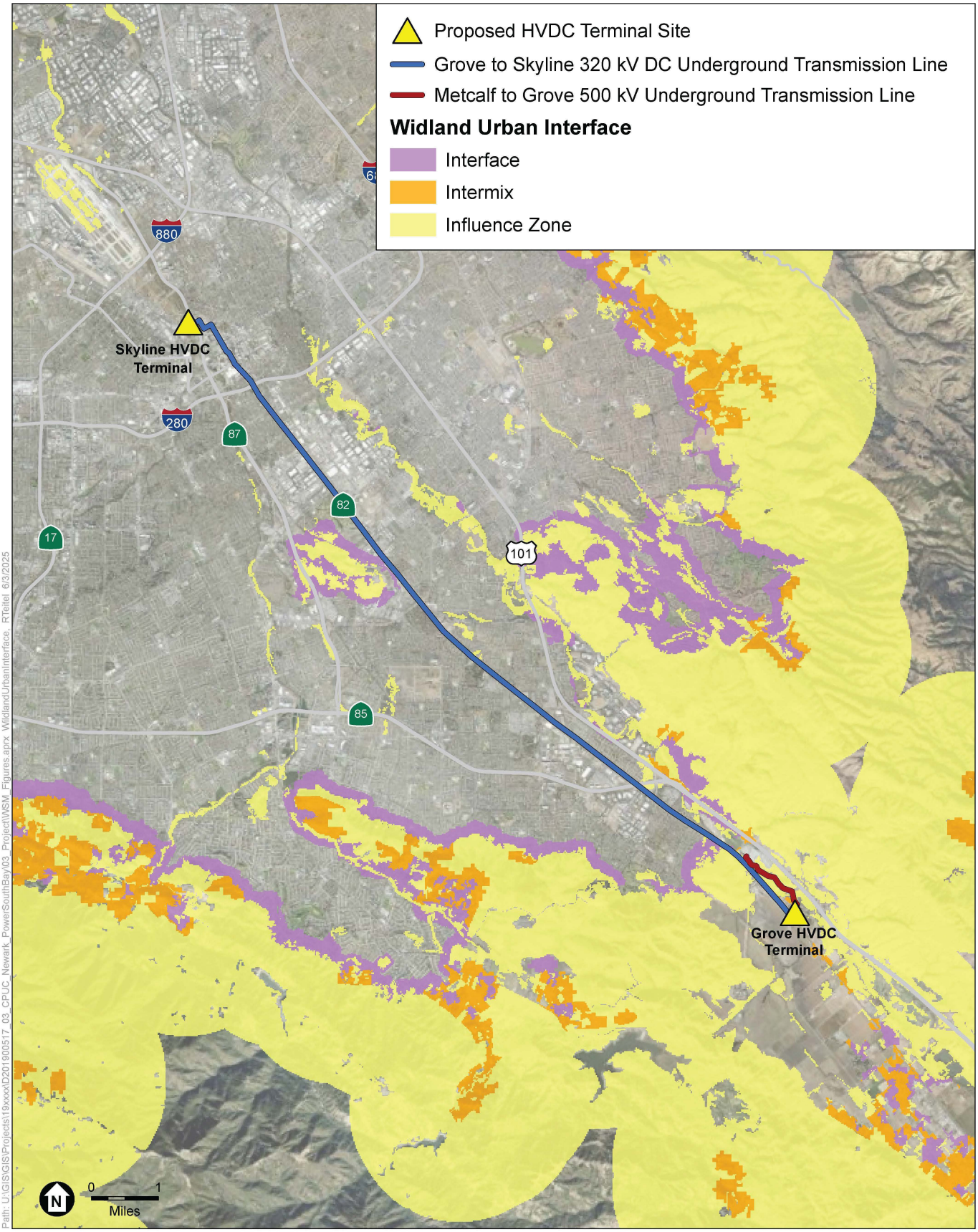
Although the city of San José is largely made up of urban and suburban neighborhoods, it's also surrounded by wildland areas that have a history of serious wildfires—namely in the Santa Cruz Mountains and Diablo Range. Homes and neighborhoods that reside in or alongside these wildland areas are vulnerable to such wildfires given their proximity to vegetative fuels. This transitional area, where structures and other human development meet or intermingle with undeveloped wildland, is defined as the wildland-urban interface (WUI) (City of San José 2025b).

The Project area is partially located in a WUI Influence Zone (U.S. Forest Service 2023). Specifically, the proposed Grove HVDC Terminal, the proposed Metcalf to Grove 500 kV Transmission Line and primarily the southern end of the proposed Grove to Skyline 320 kV Transmission Line are in the vicinity of the WUI Influence Zone. **Figure 3.20-2**, *Wildland-Urban Interface Near the Project*, presents the existing WUI designations in the Project's vicinity.

Weather/Climate

Weather conditions such as wind, temperature, and humidity also contribute to fire behavior. Fuels located in hotter and drier temperatures are more susceptible to ignition and catch fire more readily than fuels located in moister or cooler temperature conditions.

Santa Clara County has a Mediterranean climate, characterized by extended periods of precipitation during winter months, and virtually none from spring through autumn. Annual average rainfall amounts vary significantly due to topography. Portions of the county in the Santa Cruz Mountains receive 40–60 inches per year, while the central Santa Clara Valley receives on average 13–14 inches in the vicinity of downtown San José (Santa Clara County 1994). Similarly, the city of San José receives 14–15 inches of rainfall per year, subject to recurring and sometimes long-lasting droughts (City of San José 2024). Weather in the Project area is consistent with the Mediterranean climate of Santa Clara County and receives a moderate amount of rainfall each year.



SOURCE: ESA, 2024; CalFire, 2024

Power Santa Clara Valley Project

Figure 3.20-2
Wildland-Urban Interface Near the Project

Impacts of Wildfire on Air Quality

As wildfires burn fuel, large amounts of carbon dioxide, particulate matter, and ozone precursors are released into the atmosphere. Wildfires also emit a substantial amount of volatile and semi-volatile organic materials and nitrogen oxides that form ozone and organic particulate matter. These emissions can lead to harmful exposures for first responders, nearby residents, and even populations in regions farther from the wildfires (NOAA 2021). Exposure to these pollutants can cause asthma attacks, coughing, and shortness of breath. Chronic exposure to these pollutants can increase the risk of developing chronic health conditions such as heart disease, diabetes, and cancer (CDC 2025). See Section 3.4, *Air Quality,* for an analysis of these pollutants in conjunction with the Project.

3.20.2 Regulatory Setting

3.20.2.1 Federal

North American Electric Reliability Corporation Standards

The North American Electric Reliability Corporation (NERC) is a not-for-profit international regulatory authority whose mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. NERC develops and enforces reliability standards; annually assesses seasonal and long-term reliability; monitors the bulk power system through system awareness; and educates, trains, and certifies industry personnel.

NERC developed a transmission vegetation management program to improve the reliability of the electric transmission system by preventing outages from vegetation located on transmission right-of-ways (ROWs) and minimizing outages from vegetation located adjacent to ROWs, maintaining clearances between transmission lines and vegetation on and along transmission ROWs, and reporting vegetation-related outages of the transmission systems. This transmission vegetation management program applies to PG&E's transmission line-related vegetation management activities in the Project area. These requirements include identifying and documenting clearances between vegetation and any overhead, ungrounded supply conductors, while considering transmission line voltage, the effects of ambient temperature on conductor sag under maximum design loading, fire risk, line terrain and elevation, and the effects of wind velocities on conductor sway. These guidelines are set forth in PG&E's Transmission Vegetation Management Standard, which is designed to meet or exceed federal laws and regulations, including NERC (PG&E 2016).

3.20.2.2 State

Strategic Fire Plan for California

The CAL FIRE *Strategic Plan 2024: Transforming Tomorrow* is CAL FIRE's most current 5-year strategic plan. It builds on the goals and objectives of the 2019 strategic plan. Developed by the State Board of Forestry and Fire Protection, the Strategic Fire Plan outlines goals and objectives to implement CAL FIRE's overall policy direction and vision. The 2024 plan highlights CAL FIRE's goals to minimize fire risk by improving core operations (CAL FIRE 2024b).

As outlined above, the Project area is located entirely within an LRA with no high fire hazard classifications. Thus, the strategic plan would not be directly applicable to the Project but is considered for regional wildfire regulatory framework and planning purposes in the Greater Bay Area region.

California State Emergency Plan

Pursuant to the Emergency Services Act (Government Code Section 8550 et seq.), California has developed an emergency plan to coordinate emergency services provided by federal, state, and local government agencies and private persons. Rapid response to incidents involving wildfire and other natural or human-caused incidents is an important part of the plan, which is administered by the Governor's Office of Emergency Services. The Governor's Office of Emergency Services coordinates the responses of other agencies, including the U.S. Environmental Protection Agency, California Environmental Protection Agency, California Highway Patrol, California Department of Fish and Wildlife, regional water quality control boards, local air districts, and local agencies (Cal OES 2023). The 2023 version is currently being updated, but it is not yet available to the public.

The California State Emergency Plan plays a key role in guiding state agencies, local jurisdictions, and the public on emergency management. It describes the methods for emergency operations, provision of mutual aid, emergency response capabilities of state agencies, resource mobilization, public information, and continuity of government during an emergency or disaster. Currently, the emergency plan is undergoing an update, which includes:

- An enhanced whole community planning approach.
- An updated hazards discussion with new information on wildfires, earthquakes, pandemics, severe weather, Public Safety Power Shutoffs, and cyberattacks.
- An additional section on science and technology in emergency management.
- Updated state agency roles and responsibilities.
- Additional information on recovery support functions and the California Disaster Recovery Framework.

California Department of Forestry and Fire Protection: Fire Hazard Severity Zones

Public Resources Code Sections 4201–4204 requires CAL FIRE to prepare fire hazard severity zone maps for all lands within SRAs and to make recommendations for such zones in LRAs. Each zone encompasses relatively homogeneous lands and is to be based on fuel loading, slope, fire weather, and other relevant factors present, including areas where winds have been identified as a major cause of wildfire spread. These maps are developed using a science-based and field-tested model that assigns a hazard score based on the factors that influence fire likelihood and fire behavior. Many factors are considered such as fire history, existing and potential fuels (natural vegetation), predicted flame length, blowing embers, terrain, and typical fire weather for the area. These zones, referred to as FHSZ, classify a wildland zone as moderate, high, or very high fire hazard based on the average hazard across the area included in the zone. Very High Fire Hazard

Severity Zones (VHFHSZ) contain the greatest risk to wildfire spread, based on fuel loading, slope, fire weather, and other relevant factors present, including areas where winds have been identified by the department as a major cause of wildfire spread.

Wildfire is an ongoing concern in Santa Clara County, particularly in the foothills and forested lands. The Project area does not contain this type of terrain and is not located in a FHSZ. The nearest FHSZ is approximately 0.5 mile east of the proposed Grove HVDC Terminal, which is a high FHSZ classification. The closest VHFHSZ is approximately 2 miles east of the proposed Grove HVDC Terminal (CAL FIRE 2024a).

Public Resources Code Section 4291

Public Resources Code Section 4291 identifies fire safety provisions that are deemed necessary by the director or agency with primary responsibility for fire protection in the area. During the fire hazard season, these regulations include maintaining defensible space; restricting the use of equipment that may produce a spark, flame, or fire; requiring the use of spark arrestors on equipment that has an internal combustion engine; specifying requirements for the safe use of gasoline-powered tools in fire hazard areas; and specifying fire-suppression equipment that must be provided on-site for various types of work in fire-prone areas.

California Public Utilities Commission–Designated Wildfire Hazard Zones

Pursuant to its fire safety rulemaking, the CPUC mapped high-fire-threat areas where more stringent inspection, maintenance, vegetation clearance, and wire clearance requirements (as required by CPUC General Orders 95, 165, and 166, described below) would be implemented because of the elevated risk for power line fires. The CPUC High Fire Threat District Map identifies elevated risk for fires associated with utilities based on criteria such as fire hazards associated with historical power line-caused wildfires and current fuel conditions. The map scores geographic areas based on where fires start, as opposed to where potential fires may cause impacts. The Project site is not located in a CPUC-designated High Fire Threat District (CPUC 2025). The nearest CPUC High Fire Threat District is a Tier 2 zone approximately 1 mile east of the proposed Grove HVDC Terminal (Figure 3.20-1)**.**

California Public Utilities Commission General Orders

General Order 131-D

Initially adopted in June 1994 and modified once in 1995 and again in 2023, General Order 131-D provides rules relating to the planning and construction of electric generation, transmission/power/distribution line facilities and substations in California. As such, no public utility "shall begin construction in this state of any new electric generating plant, or of the modification, alteration, or addition to an existing electric generating plant, or of electric transmission/power/distribution line facilities, or of new, upgraded or modified substations without first complying with the provisions of this General Order" (CPUC 2023). The CPUC adopted General Order 131-D and its revisions to be responsive to:

- The requirements of the California Environmental Quality Act and Senate Bill No. 629, Stats. 2022;

- The need for public notice and the opportunity for affected parties to be heard by the Commission;
- The obligations of the utilities to serve their customers in a timely and efficient manner; and
- The need to replace the present complaint treatment of under-200-kV projects with a new streamlined review mechanism

General Order 95

Revised January 2020, this General Order outlines rules for the construction of overhead electric lines. CPUC General Order 95 applies to work conducted by PG&E and the other investor-owned utilities, including the construction and reconstruction of overhead electric lines. The replacement of poles, towers, or other structures is considered reconstruction and requires adherence to all strength and clearance requirements of this order. The CPUC has promulgated various rules to implement the fire safety requirements of General Order 95, including the following (CPUC 2024):

- **Rule 18A:** Requires utility companies to take appropriate corrective action to remedy safety hazards and General Order 95 nonconformances. Additionally, this rule requires that each utility company establish an auditable maintenance program.
- **Rule 31.2:** Requires that lines be inspected frequently and thoroughly. It also requires that lines temporarily out of service be inspected and maintained.
- **Rule 35:** Requires that vegetation management activities be performed to establish necessary and reasonable clearances. These requirements apply to all overhead electrical supply and communication facilities that are covered by this General Order. Specifically, this applies to communication and electric supply circuits, energized at 750 volts or less, which must be kept clear of vegetation in new construction and when circuits are reconstructed or repaired.
- **Rule 38:** Establishes minimum vertical, horizontal, and radial clearances of wires from other wires.

General Order 165

General Order 165 establishes requirements for the inspection of electric distribution and transmission facilities that are not contained within a substation. Utilities must perform “patrol” inspections, which are defined as a simple visual inspection of utility equipment and structures (designed to identify obvious structural problems and hazards) at least once per year for each piece of equipment and structure. Detailed inspections, where individual pieces of equipment and structures are carefully examined, are required every 5 years for all overhead conductors and cables, transformers, switching/protective devices, and regulators/capacitors. By July 1 of each year, each utility subject to General Order 165 must submit an annual report of its inspections for the previous year under penalty of perjury.

General Order 166

General Order 166 Standard 1.E requires each investor-owned utility, such as PG&E, to develop a fire prevention plan describing measures that the utility will implement to mitigate the threat of power line fires generally. Additionally, this standard requires that investor-owned utilities outline a plan to mitigate power line fires when wind conditions exceed the structural design standards of the line during a Red Flag Warning event in a high-fire-threat area. Fire prevention

plans formulated by investor-owned utilities are required to identify specific parts of the utility's service territory where the conditions described above (i.e., Red Flag Warnings and high-wind events) may occur simultaneously. Standard 11 requires that utilities report annually to the CPUC regarding compliance with General Order 166.

PG&E Company Emergency Response Plan

Updated in 2019, the PG&E Company Emergency Response Plan assists PG&E personnel with safe, efficient, and coordinated response to emergency incidents involving gas or electric generation, distribution, storage, and/or transmission systems. The Company Emergency Response Plan applies to PG&E service territory and the people who work in those systems. This all-hazards approach applies to any natural disaster or human-caused situation (e.g., fires, floods, storms, earthquakes, terrorist attack, or cyberattack) that threatens life and property or requires immediate action to protect or restore service or critical business functions to the public. The Company Emergency Response Plan also outlines the operational structure, which includes a Wildfire Safety Operations Center that operates 24 hours a day during wildfire season (PG&E 2019).

2023–2025 PG&E Wildfire Mitigation Plan

Updated in December 2024, this plan outlines PG&E's Community Wildfire Safety Program, with the overarching goals to reduce ignition risk, improve operational mitigations such as Public Safety Power Shutoffs, and improve system resilience. In this updated plan, PG&E employs strategies to aggressively reduce wildfire risk in the High Fire Threat Districts and High Fire Risk Areas through undergrounding, updating management and mitigation planning, and addressing vegetation risk more efficiently through new risk-informed mitigation initiatives (PG&E 2024).

2022 California Fire Code

The most recent fire code, the 2022 California Fire Code with a July 2024 supplement, is contained within the California Code of Regulations Title 24, Part 9. Based on the International Fire Code, the California Fire Code was created by the California Buildings Standards Commission and uses a hazards classification system to determine the appropriate measures to incorporate to protect life and property. It provides an enforceable set of regulations consistent with nationally recognized and accepted practices for safeguarding life and property from the hazards of fire and explosion; dangerous conditions arising from the storage, handling, and use of hazardous materials and devices; and hazardous conditions in the use or occupancy of buildings or premises. It also contains provisions to assist emergency response personnel.

3.20.2.3 Local

CPUC General Order 131-D Section XIV establishes that local jurisdictions acting pursuant to local authority are preempted from regulating electrical infrastructure built by public utilities subject to the CPUC's jurisdiction (CPUC 2023). Therefore, local land use regulations would not apply to the Project or its alternatives. However, for informational purposes, the goals and policies of local general plans and other planning documents pertaining to wildfire that would otherwise be relevant to the Project and alternatives are described below.

Santa Clara County Wildland Urban Interface

WUIs are areas of concern for the local, state, and federal governments. Wildfire mitigation and preparedness measures are necessary for residences within the WUI. The Santa Clara County WUI strategy aims to reduce the chance of building loss or damage due to wildfire by providing a defensible space and constructing a more ignition-resistant structure. The County Board of Supervisors approved the original Santa Clara County WUI Fire Area Map in January 2008. This map includes both the SRA as designated by CAL FIRE in 2007, and the former Santa Clara County Hazardous Fire Area as approved by the County Board of Supervisors in 1976. Due to the availability of new mapping technology, the LRA portion of the map has been updated by the County and combined with the existing SRA data to form a single WUI Fire Area Map. The WUI map displays fire risk between wildland and urban areas (City of San José 2025b). As depicted by Figure 3.20-2, the Project site is partially located within a WUI.

Santa Clara County Community Wildfire Protection Plan

As described above, WUI fires are a growing community problem. Santa Clara County Fire has the authority and responsibility to provide life safety and protection of property. The Community Wildfire Protection Plan was created to develop wildfire mitigation to improve firefighter safety and help protect at-risk populations, critical infrastructure, cultural sites, and natural resources (Santa Clara County 2023a). Along with this operational response of protecting life and property, Santa Clara County Fire has the authority and responsibility to work with local cooperators and property owners to mitigate wildfire risk. The purpose of the 2023 Santa Clara County Community Wildfire Protection Plan update is to do the following:

- Provide a countywide scale of wildfire risk and protection needs.
- Bring together all responsible wildfire management and suppression entities in the planning area to address the identified needs.
- Provide a framework for future planning and implementation of necessary mitigation measures.

Although proximity to public lands (e.g., forests, brushlands, and grasslands) can impact wildfire risk, there are ways to reduce wildfire risk within the community as well. This includes an emphasis on the importance of local codes and ordinances, home ignition zones, defensible space, ignition resistant construction and design standards, and hazardous fuels reduction in parks, common-owned areas, and open spaces. To assist all entities interested in wildfire matters within Santa Clara County, the Community Wildfire Protection Plan efforts include the following:

- Outlining a mitigation and preparedness plan to work toward reducing wildfire risk.
- Establishing collaborative relationships with state and federal agencies, as well as local stakeholders before an event occurs.
- Developing pre-attack plans or WUI tactical maps for suppression personnel to improve firefighter readiness and safety.
- Documenting planning and projects for garnering grant success.

Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan

The 2024 Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan was approved by the Federal Emergency Management Agency in February 2024. The guiding principle is to "equitably reduce risk and increase resilience by establishing and promoting a comprehensive mitigation program and efforts to protect the Whole Community and environment from identified natural and human-induced hazards" (Santa Clara County 2023b).

The Multi-Jurisdictional Hazard Mitigation Plan seeks to develop community awareness, understanding, and interest in hazard mitigation while implementing associated mitigation policies and programs to minimize the potential for loss of life, injury, social impacts, and dislocation due to hazards. The Multi-Jurisdictional Hazard Mitigation Plan effectively delivers essential information to the whole community that promotes personal preparedness and includes advice to reduce personal vulnerability to hazards. It also encourages programs and projects that promote community resiliency by maintaining the functionality of critical operational area resources, facilities, and infrastructure (Santa Clara County 2023b).

Santa Clara County General Plan

The Santa Clara County General Plan's *Health and Safety Element* outlines the County's planning strategies regarding air quality, hazardous materials, emergency preparedness, noise, natural hazards (including wildland fire threat), aviation safety, facilities planning, and wastewater disposal. The Santa Clara County General Plan's *Health and Safety Element* (Santa Clara County 1994) includes the following policies related to fire hazards that are relevant to the Project:

> ***Policy C-HS 28:*** Countywide strategies for reducing the threat of natural hazards to life and property should include:
>
> a. Inventory hazards and monitor changing conditions.
>
> b. Minimize the resident population within high hazard areas.
>
> c. Design, locate and regulate development to avoid or withstand hazards.
>
> d. Reduce the magnitude of the hazard, if feasible.
>
> e. Provide public information regarding natural hazards.
>
> ***Policy C-HS 31:*** Cities should not expand Urban Service Areas into undeveloped areas of significant hazards.
>
> ***Policy C-HS 32:*** Areas of significant natural hazards shall be designated in the County's General Plan as Resource Conservation Areas with low development densities in order to minimize public exposure to avoidable risks.
>
> ***Policy C-HS 33:*** Development in areas of natural hazards should be designed, located, and otherwise regulated to reduce associated risks, by regulating the type, density, and placement of development where it will not:
>
> a. be directly jeopardized by hazards;
>
> b. increase hazard potential; and
>
> c. increase risks to neighboring properties.

In addition to the *Health and Safety Element*, the General Plan also addresses threats to urban and rural environments through its *Safety and Noise* section of the *Rural Unincorporated Area Issues and Policies* section. Most fires in Santa Clara County's rural areas are the result of human causes, such as arson, careless cigarette disposal, or sparks from motor vehicles or other power tools or equipment. With fire hazards prevalent in Santa Clara County, four main areas of concern for protecting rural unincorporated areas are access, water supply, building materials, and vegetation removal. Each of these issue areas are focal points for the County to reduce fire risk and improve fire safety. The following policies are related to fire hazards that are relevant to the Project (Santa Clara County 1994):

> ***Policy R-HS 5:*** Strategies for reducing the threat of natural hazards to life and property within rural unincorporated areas shall be to:
>
> 1. Inventory hazards and monitor changing conditions.
> 2. Maintain low resident population densities within high hazard areas.
> 3. Design, locate and regulate development to avoid or withstand hazards.
> 4. Reduce the magnitude of the hazard, if possible.
> 5. Provide public information regarding natural hazards.
>
> ***Policy R-HS 6:*** Inventories and mapping of natural hazards shall be adequately maintained for use in planning and decision-making.
>
> ***Policy R-HS 22:*** Adequate access and water supplies for fire safety shall be required for all new development, including building sites, subdivisions, and clustered development.
>
> ***Policy R-HS 23:*** Areas for which inadequate access is a general concern, either due to lack of secondary access, dead-end roads of excessive length, and substandard road design or conditions, should be examined to determine if there are means by which to remedy the inadequacies. Such means may include:
>
> a. specific local area circulation plans to establish alternative access;
> b. specific roadway improvements to remedy hazardous situations, financed by those most benefited by the improvements;
> c. traffic routing and controls to discourage the use of such roads by non-residents.
>
> ***Policy R-HS 24:*** Dead-end roads shall not be extended unless in the judgment of the Fire Authority, such extensions will serve to reduce the risks from fire hazards in the affected area.
>
> ***Policy R-HS 26:*** For communities in areas of high or extreme fire hazard that have developed under development densities greater than generally allowed under current General Plan policies, water systems with hydrants should be provided wherever feasible.
>
> ***Policy R-HS 27:*** The County should encourage the use of fire-retardant building materials and landscaping not already required by County development and building codes when new development and rebuilding are proposed in areas of high or extreme fire hazard.
>
> ***Policy R-HS 33:*** For areas where it may be appropriate, fire protection agencies and districts should utilize controlled burns and other forms of vegetation management to reduce the buildup of vegetative matter and the potential fire hazard within an area.

Lastly, the *Land Use Policies* section of the *Rural Unincorporated Area Issues and Policies* section contain the following policy related to fire hazards that are relevant to the Project (Santa Clara County 1994):

> ***Policy R-LU 16:*** Mountainous lands and foothills unsuitable and/or unplanned for annexation and urban development. Lands so designated shall be preserved largely in natural resource related and open space uses in order to:
>
> a. support and enhance rural character;
>
> b. protect and promote wise management of natural resources;
>
> c. avoid risks associated with the natural hazards characteristic of those areas; and
>
> d. protect the quality of reservoir watersheds critical to the region's water supply.

City of San José General Plan

The City of San José *Envision San José 2040 General Plan* (City of San José 2024) includes the following goals and policies related to wildfire that are relevant to the Project:

> **Goal EC-8: Wildland and Urban Fire Hazard.** Protect lives and property from risks associated with fire-related emergencies at the urban/wildland interface.
>
> > **Policy EC-8.1:** Minimize development in very high fire hazard zone areas. Plan and construct permitted development so as to reduce exposure to fire hazards and to facilitate fire suppression efforts in the event of a wildfire.
> >
> > **Policy EC-8.2:** Avoid actions which increase fire risk, such as increasing public access roads in very high fire hazard areas, because of the great environmental damage and economic loss associated with a large wildfire.
> >
> > **Policy EC-8.3:** For development proposed on parcels located within a very high FHSZ or wildland-urban interface area, implement requirements for building materials and assemblies to provide a reasonable level of exterior wildfire exposure protection in accordance with City-adopted requirements in the CBC.
> >
> > **Policy EC-8.4:** Require use of defensible space vegetation management best practices to protect structures at and near the urban/wildland interface.
>
> **Goal ES-3: Law Enforcement and Fire Protection.** Provide high-quality law enforcement and fire protection services to the San José community to protect life, property, and the environment through fire and crime prevention and response. Utilize land use planning, urban design and site development measures, and partnerships with the community and other public agencies to support long-term community health, safety, and well-being.
>
> > **Policy ES-3.11:** Ensure that adequate water supplies are available for fire-suppression throughout the City. Require development to construct and include all fire suppression infrastructure and equipment needed for their projects.
> >
> > **Policy ES-3.20:** Require private property owners to remove excessive/overgrown vegetation (e.g., trees, shrubs, weeds) and rubbish to the satisfaction of the Fire Chief to prevent and minimize fire risks to surrounding properties.

San José Fire Department

The San José Fire Department (SJFD) is committed to serving the community by protecting life, property, and the environment through prevention and response. The SJFD is a full-service, all-hazard metropolitan fire department that serves the city of San José and unincorporated areas of Santa Clara County, serving 1.2 million residents over 200 square miles. The protection area includes residential, commercial, industrial, WUI areas, and the San Francisco Bayfront. SJFD protects high-traffic areas such as the San José Mineta International Airport, the SAP Center, PayPal Park, San José State University, three super-regional malls, seven major hospitals, and 108 high-rise structures (City of San José 2025a). There are 34 fire facilities in SJFD and five fire stations within an approximate 2-mile radius of the Project's Skyline HVDC terminal. SJFD Fire Station 27 is nearest to the Grove HVDC terminal, located approximately 1.5 miles northwest.

Santa Clara County Emergency Operations Plan: Wildfire Annex

The Wildfire Annex is a hazard-specific annex to the Santa Clara County Emergency Operations Plan and provides a framework for coordinating actions to be taken before and during a wildfire event that may result in evacuations and notifications. The Annex is written at the operational area (OA) level to help ensure all jurisdictions, agencies, and partners within the OA have centralized information. This information will aid in the development of further local plans and provide key information required to successfully mitigate the adverse impacts of a wildfire event. The Annex will also outline wildfire OA coordination actions, public information and warning, evacuation considerations, and reentry and repopulation considerations. To effectively respond to wildfire events and evacuations, each stakeholder should understand not only their agency's internal functions and capabilities but also the capabilities of other stakeholders in the OA. To alleviate unnecessary overlap of duties or misallocation of resources, this Annex outlines relevant roles and responsibilities of jurisdictions, agencies, and partners before and during a wildfire event. Once implemented, this Annex will be used for training, drills, and actual responses.

The Annex addresses preparedness, response, and limited recovery activities during wildfire events in the county. It applies to all public, private, non-governmental organizations, and community-based organizations within the OA. All activities are in accordance with the state Standardized Emergency Management System, which has been integrated with the federal National Incident Management System. The Standardized Emergency Management System principles will be followed during multi-agency or multi-jurisdictional emergency management activities (Santa Clara County 2019).

3.20.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPGC and PG&E to reduce impacts. Each utility would be responsible for implementing its measures only for that part of the Project that it would own or for which it would be responsible.

LSPGC would be responsible for the majority of the Project, from a proposed termination structure at the PG&E San Jose B Substation to a splice vault located at the PG&E Metcalf Substation.

Specifically, at the northern end of the Project area, LSPGC's scope would stop at a dead-end or similar termination structure that would be located in the proposed expansion area as part of the modifications to the PG&E San Jose B Substation. At the southern end of the Project area, LSPGC's scope would stop at a splice vault located at the western property line of the PG&E Metcalf Substation. Figure 2-4a demonstrates LSPGC's scope of work for the Project.

Therefore, and as noted in Section 2.6.3, *Existing PG&E Substations*, PG&E would be responsible for the portion of the Project involving modifications within the existing PG&E San Jose B and Metcalf substations. At the PG&E San Jose B Substation, PG&E would be responsible for the work starting from the termination structure located within the proposed expansion area (see Figure 2-4b for PG&E's scope of work for the Project at the existing PG&E San Jose B Substation). At the PG&E Metcalf Substation, PG&E would be responsible for the work starting from a splice vault located at the western property line of the substation. PG&E would own the new circuit from that point to the new bay within the existing PG&E Metcalf Substation (see Figure 2-4c for PG&E's scope of work for the Project at the existing PG&E Metcalf Substation).

3.20.3.1 Applicant-Proposed Measures

No Applicant-proposed measures (APMs) have been proposed by LSPGC to address potential effects on wildfire or increase the risk of wildfire in the Project area.

3.20.3.2 PG&E Best Management Practices and Field Protocols

No PG&E best management practices (BMPs) or field protocols (FPs) have been proposed to specifically reduce potential effects on wildfire prevention or management or increase the risk of wildfire in the Project area.

3.20.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, the Project would result in a significant impact on wildfire if it would do any of the following:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

3.20.5 Direct and Indirect Effects

3.20.5.1 Approach to Analysis

Wildfire impacts have been evaluated within the context of the construction and operation and maintenance of the Project. This analysis considers if the Project's wildfire risk could be effectively lessened through implementation of standard regulatory requirements (e.g., compliance with the CAL FIRE regulations, local fire codes, the County's General Plan, etc.). The Project would comply with all regulatory policies and procedures applicable to wildfire and emergency response capabilities. In compliance with CEQA Guidelines Appendix G, the following analyses consider the impacts related to wildfire risk that the Project could have on the surrounding area, rather than the wildfire-related impacts the surrounding area could have on the Project.

For the purposes of this CEQA analysis, the Project includes both LSPGC's proposed Power Santa Clara Valley Project and PG&E's Metcalf and San Jose B substations expansion and modifications, as discussed in Chapter 1, *Introduction*. Therefore, the analysis below is inclusive of the whole of the Project as described in Chapter 2, *Project Description*, and applicable to both LSPGC and PG&E facilities.

3.20.5.2 Impact Assessment

Criterion a) If located in or near a state responsibility area or lands classified as very high fire hazard severity zone, whether the Project would substantially impair an adopted emergency response plan or emergency evacuation plan.

The Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. (*No Impact*)

Construction

The Project would not be located within lands classified as VHFHSZ, and the nearest VHFHSZ classification is approximately 2 miles east of the proposed Grove HVDC Terminal and proposed PG&E Metcalf Substation expansion area. The nearest CPUC High Fire Threat District is land classified as Tier 2, located approximately 0.5 mile northeast of the proposed PG&E Metcalf Substation expansion area and 1 mile east of the proposed Grove HVDC Terminal. However, both of these fire threat classifications exist across the Highway 101 corridor, which presents a physical barrier to spread should a fire occur.

Additionally, the implementation of **APM TRA-1: Traffic Control Plan**, would minimize traffic impacts, including those related to potential lane closures and lane modifications. Construction activities would be coordinated with local law enforcement and fire protection agencies, as required. Emergency service providers would be notified of the timing, location, and duration of construction activities, which would aid in compliance with local evacuation response.

The Project area does not overlap within an existing SRA and is therefore served by the fire and emergency response services of an LRA. There are several fire stations in close proximity to the Project, including five SJFD fire stations within an approximate 2-mile radius of the proposed Skyline HVDC Terminal, and one SJFD station 1.5 miles northwest of the proposed Grove HVDC Terminal. The level of service would not be burdened by the addition of the Project to the service area, given the number of fire stations in the Project area's immediate vicinity. For a more detailed analysis on fire station response capacity, see Section 3.15*, Public Services.*

The Santa Clara County Emergency Operations Plan, specifically the Wildfire Annex, does not outline a specific response for the Project area. Thus, should a fire occur within the Project area, there would be no conflict with an existing emergency response and evacuation plan as one does not exist. Rather, response would be coordinated with local emergency responders as necessary, and given the capacity of SJFD and existing stations in close proximity to the Project area, local emergency response would have the capacity to respond should a fire occur as a result of the Project. Therefore, there would be no impact.

Operation and Maintenance

Impacts during operations and maintenance would be the same as those during construction, as the Project would not be located in a CAL FIRE FHSZ or a CPUC High Fire Threat District. There is no specific emergency response plan set for the service area. Therefore, should a fire occur during operation and maintenance, emergency response would be coordinated on a case-by-case basis as needed. The implementation of APM TRA-1 would minimize any potential traffic incidents to allow for adequate emergency response access if needed. Therefore, there would be no impact.

Criterion b) If located in or near a state responsibility area or lands classified as very high fire severity zone, whether the Project would, due to prevailing winds and other factors, exacerbate wildfire risks, and thereby potentially expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Impact 3.20-1: The Project would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (*Less than Significant*)

Construction

As described in Section 3.20.1*, Environmental Setting*, the Project is not located in an SRA, but the nearest VHFHSZ classification is approximately 2 miles east of the proposed Grove HVDC Terminal.

During construction, the Project's proposed transmission lines would travel through urban landscapes containing industrial, commercial, open space, residential, agricultural, mixed use, open hillside, and recreational land use designations (see Section 3.11*, Land Use and Planning*). Existing utility infrastructure includes the PG&E San Jose B and Metcalf substations, which are predominately steel structures. The heavily populated commercial and residential areas present a fire risk due to flammable materials and fuel located in close proximity. However, the limited

amount of vegetation, physical access for fire response personnel, and access to municipal water supplies for fire suppression lower the risk of wildfire spread and damage in this urban area. Additionally, there are no SRAs near the existing PG&E San Jose B and Metcalf substations, or most of the Project. The only SRAs near the Project site are close to the proposed Grove HVDC Terminal.

As for the proposed Grove HVDC Terminal, the surrounding land is more rural than the other portions of the Project site. During the construction phase proposed for this terminal, there would be a slight increase in wildfire risk as a result of typical construction activities that require heavy machinery. Construction activities that could result in sparks, such as welding or grading, have a potential to result in an ignition. The predominant fire hazard from Project construction would be from construction vehicles and equipment use if dry vegetation was ignited, particularly during the drier, warmer conditions of summer and fall.

As discussed in Section 3.20.1, prevailing winds around the Project site are predictable, and there is no intervening topography to deflect the winds, indicating wind-driven fires would also move in this way. Although the use of vehicles and equipment on the Project site could result in an ignition that could lead to the spread of wildfire, the risk of such an impact would be low due to the temporary duration of construction, existing flat topography, predictable and minor prevailing windspeed, lack of vegetation on-site, and proximity to emergency firefighting response. Additionally, it is anticipated that the Project would be designed and constructed according to local jurisdictions' design and safety standards, which would include proper fire prevention and health and safety procedures, as well as applicable standards contained in the California Building ode and California Fire Code. The combination of the temporary duration of construction as well as adherence to applicable design and safety standards would minimize such potential risk as it relates to this criterion.

For the Project area at large, given the inherent potential for ignition risk associated with power lines, PG&E's Fire Prevention Plan would be applied to the PG&E facilities, as required by CPUC General Order 166. The implementation of operational risk management programs identified in PG&E's Fire Prevention Plan and Wildfire Safety Plan would reduce the risk of an ignition during operation. Relevant programs include enhanced weather monitoring, the Wood Pole Test and Treat Program, Proactive Responses to Fire Incidents, enhancements to PG&E's Storm Outage Prediction Model, the Wildfire Reclosing Disable Program, and the Public Safety Power Shutoff program (PG&E 2019). Additionally, vegetation along substation lines would be managed in compliance with NERC Standard FAC-003, Transmission Vegetation Management. The Project would also abide by the CPUC vegetation management and clearance requirements, General Orders 95 and 165, which would effectively manage the risk of exposing surrounding communities to exacerbated risk of the uncontrolled spread of wildfire during construction and operation. Considering the regulatory and environmental setting where the Project exists, impacts to criterion b) would be **less than significant**.

Operation and Maintenance

The Project would have a similar impact regarding criterion b) during operation and maintenance for the same reasons as stated above. The Project is not located in an SRA, and the only high

FHSZ classification is near the proposed Grove HVDC Terminal site. A VHFHSZ classification exists approximately 2 miles away from this proposed site, on the other side of the Highway 101 corridor.

Potential impacts under criterion b) could only occur near the proposed Grove HVDC Terminal site, as the remainder of the Project is not near an SRA. As discussed in Chapter 2, *Project Description*, the area surrounding the proposed Grove HVDC Terminal site is unpopulated and located in a flat agricultural region with no forested areas in the vicinity. Given the flat topography, moderate climate, sparsely populated area, and existing firefighting response capacity, the risk of the Project creating a wildfire that spreads uncontrollably is low. Therefore, impacts during operation and maintenance would be **less than significant**.

Mitigation: None required.

Criterion c) If located in or near a state responsibility area or lands classified as very high fire hazard severity zone, whether the Project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

Impact 3.20-2: The Project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. (*Less than Significant*)

Construction

Potential impacts under criterion c) could likely only occur near the proposed Grove HVDC Terminal site, as the remainder of the Project is not near an SRA. The proposed Grove HVDC Terminal is approximately 2 miles west of a VHFHSZ classification. During construction, the proposed Grove to Skyline 320 kV DC Transmission Line would be installed, and although it would be placed within the existing Monterey Road public ROW, it would be near the high FHSZ at the point of interconnection to the proposed Grove HVDC Terminal. The proposed underground transmission line installation would be subject to CPUC General Orders 95, 165, and 166, which were developed to prevent and mitigate fire risk associated with power lines.

The main concern with ignition during Project construction would be from activities such as welding, grinding, and heavy-duty equipment use that could generate sparks. As discussed in Section 2.8.12, *Fire Prevention and Response*, during construction activities that are considered "hot work" (e.g., welding, grinding, or any other activity that creates hot sparks), LSPGC would implement a 10-foot buffer around that activity, and vegetation would be cleared to ensure sparks do not create a fire hazard. For activities that do not produce sparks but still have the potential to produce a fire hazard, LSPGC would implement a five-foot buffer that would be cleared of vegetation, and additional details (i.e., handling sparks) would be provided in the construction fire prevention plan or equivalent construction specification, in accordance with fire safety and design standards as well as measures proposed for the Project.

For PG&E's portion of work for the Project, should a spark occur, the risk of ignition would be low given PG&E's compliance with vegetation buffers which would reduce fuel loading in the immediate vicinity. Largely, the implementation of fuel breaks and vegetation clearances would assist with fire prevention and suppression, therefore reducing wildfire risk. Additionally, to reduce risk associated with the PG&E interconnection facilities, PG&E would comply with the CPUC's vegetation clearance and other regulatory requirements, as outlined in Section 3.20.2*, Regulatory Setting*. Additionally, LSPGC and PG&E would update their existing wildfire mitigation plans (WMPs) to include the Project before its energization. With these standards and safeguards in place, the Project's fire risk would be limited. Controls and procedures would be in place to proactively reduce fire hazards. Therefore, construction of the Project would not significantly exacerbate fire risk, and potential impacts would be **less than significant**.

Operation and Maintenance

Similar to impacts during construction, impacts under the operation and maintenance phase of the Project could only occur in proximity to the proposed PG&E Metcalf Substation expansion area and proposed Grove HVDC Terminal, which are both 2 miles west of a VHFHSZ. The rest of the Project would not be located near to a designated FHSZ or a VHFHSZ, and therefore could have no impact with respect to criterion c). However, during operation and maintenance of the proposed Grove HVDC Terminal, no vegetation would be allowed to grow within the Terminal boundaries in compliance with the CPUC General Orders cited in *Section 3.20.2, Regulatory Setting*. And while the Project would involve installation of an approximately 100-foot Skyline to San Jose B 230 kV alternating current transmission tie line, which would be overhead, PG&E would comply with the CPUC's fire safety regulations (e.g., General Orders 95, 165, and 166), as well as update their WMP, which would minimize the potential risk of exacerbating fire risk in the area.

During testing and commissioning, the Project would be operated and maintained in compliance with CPUC fire safety regulations and vegetation clearance requirements. LSPGC has committed to implementing the Project in accordance with its current WMP, ensuring proactive measures are taken to address and reduce fire risk during both operation and maintenance. Therefore, operation and maintenance of the Project would not significantly exacerbate fire risk, and potential impacts would be **less than significant.**

Mitigation: None required.

Criterion d) If located in or near a state responsibility area or lands classified as very high fire hazard severity zone, whether the Project would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

The Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (*No Impact*)

Construction

The Project is not located in an SRA or lands designated as VHFHSZ. Additionally, the majority of the Project is not near an FHSZ except for the proposed PG&E Metcalf Substation expansion area and proposed Grove HVDC Terminal, which are both approximately 2 miles west of a VHFHSZ. The topographic profile of the Project shows that the alignment is relatively flat, with an average of 0.5 percent ascending slope from north to south (LSPGC 2025). As discussed in Section 3.7*, Geology, Soils, and Paleontological Resources*, the Project is not located within a landslide-prone area. Additionally, the Project would not significantly alter the drainage pattern or existing runoff of the surrounding area, as analyzed in Section 3.10*, Hydrology and Water Quality*. Therefore, there would be no impact.

Operation and Maintenance

As discussed above, the Project is not located within a landslide prone area and the Project would not alter the drainage pattern. No people or structures would be at risk of impacts from flooding or landslides stemming from slope stability should a fire occur during Project operation and maintenance there would be no impact.

3.20.6 Cumulative Effects Analysis

The geographic scope for potential wildfire impacts consists of the footprint of the Project sites and alignments and a 2-mile buffer surrounding the sites. The cumulative projects considered here, as presented in Table 3.0-1, *Cumulative Projects List*, primarily include residential and mixed-use developments. As provided above, the environmental setting in the Project area is not highly conducive to the rapid spread of wildfire as the Project is not proposed within a moderate or very high FHSZ, nor is it in a CPUC-designated High Fire Threat Zone.

The cumulative scenario considers both the potential risks introduced by the Project and other projects due to electrified systems and the potential for mechanical failure or maintenance activities that could result in ignition. The cumulative projects listed in Table 3.0-1 could introduce risks for ignition; however, due to the nature and location of these projects, such land uses, for example, mixed-use, residential, and commercial developments, would not likely result in significant risks with respect to wildfire. These potential impacts are further discussed below.

3.20.6.1 Criterion a)

The Project would have no impact related to substantially impairing an adopted emergency response plan or emergency evacuation plan. Therefore, it would not contribute to any potential cumulative impacts associated with criterion a). (*No Impact*)

3.20.6.2 Criterion b)

Impact C.3.20-1: The Project would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to cumulative pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (*Less than Significant*)

As discussed in Impact 3.20-1, the Project is not proposed within an SRA, and the only high FHSZ classification is near the proposed Grove HVDC Terminal. The Project would not be located within lands classified as VHFHSZ, and the nearest VHFHSZ classification is approximately 2 miles east of the proposed PG&E Metcalf Substation expansion area and proposed Grove HVDC Terminal. The nearest CPUC High Fire Threat District is land classified as Tier 2, located approximately 1 mile east of the proposed Grove HVDC terminal. However, both fire threat classifications exist across the Highway 101 corridor, which presents a physical barrier to spread should a fire occur.

Potential cumulative impacts under criterion b) could only occur near the proposed Grove HVDC Terminal site, as the remainder of the Project is not near an SRA. As discussed in Impact 3.20-1, the area surrounding the proposed PG&E Metcalf Substation expansion area and proposed Grove HVDC Terminal site is unpopulated and located in a flat agricultural region with no forested areas in the vicinity. Given the flat topography, moderate climate, sparsely populated area, and firefighting response capacity, the risk of the Project creating a wildfire that spreads uncontrollably is low.

Furthermore, as discussed in Impact 3.20-1, PG&E would implement their Fire Prevention Plan to the PG&E facilities, as required by CPUC General Order 166. This would reduce the risk of an ignition during operation. Vegetation along transmission lines would also be managed in compliance with NERC Standard FAC-003, Transmission Vegetation Management, and the Project would adhere to the CPUC's vegetation management and clearance requirements, General Orders 95 and 165, which would effectively manage the risk of exposing surrounding communities to exacerbated risk of the uncontrolled spread of wildfire during construction and operation.

The Project's less-than-significant impact (see Impact 3.20-1), when considered with potential impacts of other projects in the cumulative scenario, would not be cumulatively considerable. Therefore, the cumulative impact under this criterion would be **less than significant**.

Mitigation: None required.

3.20.6.3 Criterion c)

Impact C.3.20-2: The Project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may cumulatively exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. (*Less than Significant*)

As noted in Impact 3.20-2, the Project could contribute to ignition risks during Project construction, particularly from work activities such as welding, grinding, and heavy-duty

equipment use that could generate sparks. In addition, Project maintenance activities, and the overall presence of electrical structures, could generate sparks that could result in a fire once operational. However, as noted in Impact 3.20-2, because the Project would be constructed, operated, and maintained in accordance with CPUC fire safety standards, LSPGC's safety protocols, and PG&E Fire Prevention Plan applied to the PG&E facilities, these risks would be minimal.

Similar to the Project, cumulative projects would also be held to applicable jurisdictions' fire safety standards that would reduce the risk of fire. For example, cumulative transmission projects, such as the Power the South Bay Project and the LSPGC & San José Power Interconnect Project, would be subject to the CPUC General Orders as provided above in Section 3.20.2. For these reasons, the impact attributable to the Project would not be cumulatively considerable, and thus, the cumulative impact would be **less than significant**.

Mitigation: None required.

3.20.6.4 Criterion d)

The Project would have no impact related to exposing people or structures to significant risks as a result of runoff, post fire slope instability, or drainage changes. Thus, it would not contribute to any potential cumulative impacts associated with criterion d). (*No Impact*)

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CHAPTER 4
Alternatives

4.1 Introduction to Alternatives

The California Environmental Quality Act (CEQA) requires a lead agency to analyze a reasonable range of alternatives to a proposed project that could feasibly attain most of the basic objectives of the project while substantially reducing or eliminating significant environmental effects. It also requires that an EIR evaluate a "no project" alternative to allow decision-makers to compare impacts of approving a project with the impacts of not approving it (CEQA Guidelines Section 15126.6). This chapter describes the factors considered in identifying and screening potential alternatives, explains why some potential alternatives were eliminated from further consideration, and describes those alternatives that were carried forward for analysis. This chapter also compares the environmental impacts of the Project and alternatives evaluated in detail. This comparison is based on the analysis of environmental impacts of the Project provided in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*.

4.2 CEQA Context for the Consideration of Alternatives

Section 15126.6 of the CEQA Guidelines provides the following guidance for discussion of 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 Section 15126.6(a)).
- An EIR is not required to consider alternatives that are infeasible (Section 15126.6(a)).
- The discussion of alternatives 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 (Section 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 (Section 15126.6(c)).
- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project (Section 15126.6(d)).
- There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason (Section 15126.6(a)).

In addition to project alternatives, 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 Section 15126.6(e)). The No Project Alternative analysis evaluates the existing conditions at the time the Notice of Preparation was published (i.e., July 29, 2024), as well as what reasonably would be expected to occur in the foreseeable future if the Project were not approved.

4.3 Alternatives Development and Screening Process

According to CEQA Guidelines section 15126.6(c), an EIR should "identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination." As part of the EIR scoping process, the CPUC invited input about potential alternatives from Tribes as part of the Assembly Bill 52 consultation process, from agencies and others during the public scoping period for the EIR, and from the CEQA team identified in Chapter 6, *Report Preparation*, as part of the EIR development process.

In the 2021-2022 Transmission Planning Process (TPP), the California Independent System Operator (CAISO) evaluated upgrades needed to successfully meet the State of California's policy goals, in addition to examining conventional grid reliability requirements and projects that can bring economic benefits to consumers (CAISO 2022). The CAISO's analysis, conducted through an open and stakeholder-inclusive planning process, led to the identification of the need for the Project as part of a comprehensive solution (relying in part on other upgrades to meet reliability needs notwithstanding state policy objectives) to remedy current and forecasted overloads in the San José area (CAISO 2022).

As part of the 2024-2025 TPP, the CAISO modeled all the previously approved projects in its study cases across the system but identified many performance issues in the San José and Santa Clara area transmission system under normal, as well as contingency, conditions. Thus, the main reason behind the performance issues was the increased load forecast in the San José and Santa Clara area. Mostly driven by new datacenter load projections, the long-term load forecast in the San José area has increased from around 2,100 megawatts (MW) in the 2021-2022 transmission plan studies, to around 3,400 MW in the base scenario and around 4,200 MW in the scenario that includes contingencies in the current 2024-2025 transmission planning studies.

As part of the CAISO 2021-2022 TPP, technical specifications (CAISO 2022) for the Project were identified to define the minimum project parameters from a technical standpoint. The technical specifications became the basis for the Project objectives used in this Draft EIR and are key to consideration of alternatives for the Project. As part of the technical specifications development, CAISO performed a detailed system analysis to identify the best solution to meet the technical specifications. Therefore, because CAISO effectively performed an alternatives analysis as part of the 2021-2022 TPP and developed the technical specifications for the Project, this Draft EIR does not carry forward certain types of alternatives that would not meet CAISO's technical specifications for the Project. Consistent with CEQA Guidelines Section 15126.6, the CPUC screened potential alternatives and thereafter determined to carry some forward for more detailed consideration based on the considerations identified below.

4.3.1 Attainment of Project Objectives

Section 1.3.2 in Chapter 1, *Introduction*, identifies the CPUC's six basic Project objectives listed below. Any alternative determined not to meet at least four of the basic objectives was not carried forward for more detailed review.

- Meet CAISO's reliability-driven need by addressing multiple near-, mid-, and long-term reliability issues in the existing San José area 115 kV system.
- Meet the technical specifications set forth by CAISO for a Voltage Source Converter (VSC) HVDC link in the San José area located near or adjacent to the existing PG&E San Jose B Substation and Metcalf Substation.
- Improve and maintain the reliability of the transmission grid by providing dynamic reactive power support to the San José area.
- Improve transmission of energy from existing and proposed renewable generation projects to the Greater San Francisco Bay Area (Greater Bay Area) and progress toward achieving California's Renewables Portfolio Standard goals.
- Comply with and assist CAISO in meeting applicable Reliability Standards and Criteria developed by North American Electric Reliability Corporation (NERC), Western Electricity Coordinating Council, and CAISO.
- Provide a suitable foundation for future grid updates expected to be needed to serve the long-term forecasted electricity load in the San José area, as identified by CAISO.

4.3.2 Feasibility

In this context, *feasible* means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (Public Resources Code Section 21061.1; CEQA Guidelines Sections 15126.6, 15364). None of these factors alone establishes a fixed limit on the scope of alternatives (CEQA Guidelines section 15126.6(f)). A sufficient demonstration of financial infeasibility requires more than a showing that the alternative would be more expensive or less profitable; it requires evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project. *Citizens of Goleta Valley v. Bd. of Supervisors* (1998) 197 Cal.App.3d. 1167, 1181. Any alternative determined to be infeasible for any of the potential reasons was not carried forward for more detailed review.

4.3.3 Significant Impacts of the Project

Chapter 3, *Environmental Analysis*, discloses and analyzes potential significant impacts of the Project. CEQA requires an alternative to "avoid or substantially lessen any of the significant effects of the project" (CEQA Guidelines section 15126.6(a)). Alternatives that would not substantially reduce or avoid a significant effect of the Project are dismissed from further consideration. CEQA does not require the alternatives discussion to include as much detail as the analysis for the proposed project, but the EIR must contain "sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project" (CEQA Guidelines section 15126(d)).

The Project would result in significant and unavoidable impacts to tribal cultural resources. Further, the Project may result in potentially significant impacts that would be mitigated to less-than-significant levels associated with air quality, biological resources, cultural resources, noise and vibration, transportation, and utilities and service systems (see Table 4-5, *Summary of Impacts of the Project and Alternatives*). No other significant impacts associated with the Project have been identified that cannot be reduced to a less-than-significant level.

4.3.4 The Alternative Cannot be Remote or Speculative

The CPUC also considered whether implementation of the alternatives would be remote or speculative. For purposes of this analysis, *remote* means unlikely or having only a slight chance of occurring, and *speculative* means unsupported, theoretical, or based on conjecture or guesswork. Any potential alternative determined to be remote or speculative was not carried forward for more detailed review.

4.4 Project Alternatives Considered

As a result of the alternatives development and screening process, this Draft EIR initially considered 13 potential Project alternatives:

- Technology Alternatives
  - High Voltage Alternating Current (HVAC) Alternative
  - Energy Storage Alternative
- Grove Terminal Alternatives
  - Grove Terminal Alternative 1
  - Grove Terminal Alternative 2
  - Grove Terminal Alternative 3
  - Grove Terminal Alternative 4
- Metcalf to Grove Transmission Line Alignment Alternatives
  - Metcalf to Grove Transmission Line Alignment 1
  - Metcalf to Grove Transmission Line Alignment 2
  - Metcalf to Grove Transmission Line Alignment 3
  - Metcalf to Grove Transmission Line Alignment 4
  - Metcalf to Grove Transmission Line Alignment 5
- Grove to Skyline Transmission Line Alignment Alternatives
  - Downtown Alignment Alternative 1
  - Downtown Alignment Alternative 2

For the reasons discussed below, the CPUC carried the following three alternatives forward for more detailed consideration:

- Grove Terminal Alternative 3

- Downtown Alignment Alternative 1
- Downtown Alignment Alternative 2

4.5 Alternatives Rejected from Detailed Review

Any potential alternative determined not to meet most of the basic Project objectives; to be infeasible or unable to avoid or substantially lessen one or more potential significant impacts of the Project; or to be either remote or speculative was not carried forward for detailed consideration. A brief description and rationale for not carrying forward potential alternatives that failed the screening process is provided below.

4.5.1 HVAC Alternative

4.5.1.1 Description

The High Voltage Alternating Current (HVAC) Alternative would connect the existing PG&E Metcalf and PG&E San Jose B substations with an alternating current (AC) transmission line in which the current reverses direction periodically, as opposed to a single direct current (DC) line which carries electricity in a single, constant direction. An AC system, in which high voltages are carried long distances and then stepped down near end-users, typically includes three-phase generators, step-up and step-down transformers, circuit breakers, and devices such as capacitor banks or reactors to help manage voltage and reactive power. The HVAC Alternative would reduce potentially significant impacts associated with construction and operation of the proposed HVDC terminals because HVDC terminals would not be required for this alternative. However, the HVAC transmission line would be less efficient than a DC transmission line over long distances and would result in greater capacitive losses. The HVAC transmission line would also require wider rights-of-way and less precise control of power flow compared to the Project.

4.5.1.2 Rationale for Rejection

Though a transmission line between the existing PG&E Metcalf and PG&E San Jose B substations could theoretically be either an AC or DC transmission line, an AC transmission line would not meet the technical specifications defined for the project by CAISO (CAISO 2022). Due to imbalances between two sources in the AC connected network, the HVAC alternative would not perform well from the power flow perspective. In addition, the HVAC Alternative would also result in a disadvantage related to an increased reliance on local capacity in the San José subarea and overall Greater Bay Area, which would increase reliance on the local gas generation (CAISO 2022). Therefore, the HVAC Alternative would not improve transmission of energy from existing and proposed renewable generation projects to the Greater San Francisco Bay Area (Greater Bay Area).

The Project's DC transmission line would provide additional operational controllability compared to an AC transmission line, allowing for better utilization of the electrical grid without overloads. Additionally, the proposed HVDC terminals' reactive power output would support the regional transmission system by providing voltage support to the electrical grid in the vicinity of the HVDC terminals. The DC transmission line would have a reduced impact on nearby utilities from an induced current perspective. It would also have a smaller footprint compared to a similar AC

transmission line since the DC transmission line would have two conductors while an AC transmission line requires three conductors, thereby requiring larger duct banks and splice vaults and additional ground disturbance. This alternative would not meet the Project objectives. **Table 4-1**, *Screening: HVAC Alternative*, provides a brief explanation of the reasons underlying the CPUC's determination.

TABLE 4-1
SCREENING: HVAC ALTERNATIVE

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Fail	The HVAC Alternative would not meet CAISO's technical specifications for a Voltage Source Converter (VSC) HVDC link in the San José area located near or adjacent to the existing PG&E San Jose B Substation and Metcalf Substation, would not provide dynamic reactive power support to the San José area, nor would it improve transmission of energy from existing and proposed renewable generation projects to the Greater Bay Area.
Would the alternative be potentially feasible?	Pass	This alternative would be potentially feasible.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Pass	The HVAC Alternative would avoid impacts associated with the proposed HVDC terminals.
Would the alternative be remote or speculative?	Pass	This alternative is not remote or speculative.

4.5.2 Energy Storage Alternative

4.5.2.1 Description

This alternative would involve installation of utility-scale energy storage facilities that would be charged from the existing 230 kV San José system. There would be two battery energy storage systems (BESS) installed for this alternative; one would be installed at the proposed Skyline high-voltage direct current (HVDC) Terminal site, and one would be installed at the proposed Grove HVDC Terminal site. A 500 kV transmission line would connect the Grove Terminal BESS to the existing PG&E Metcalf Substation and a 230 kV transmission line would connect the Skyline Terminal BESS to the existing San Jose B Substation. Refer to **Figure 4-1**, *Energy Storage Alternative*, for an illustration that shows the general configuration for this alternative.

4.5.2.2 Rationale for Rejection

Implementation of this alternative would substantially reduce the mileage of the required transmission line compared to the Project. However, this alternative is not recommended because it would be technically infeasible given that previous studies have shown that the San José system has far less charging capacity compared to the size of energy storage that would be needed to address all reliability issues identified in the area (CAISO 2022). In addition, even if the charging capacity exists for this alternative, it is not clear if it would be able to achieve the Project objectives.

SOURCE: ESA, 2025

CPUC Power Santa Clara Valley

Figure 4-1
Battery Energy Storage Alternative

The CPUC rejected the Energy Storage Alternative from more detailed consideration because the potential alternative would not be feasible and it is uncertain whether the alternative would be sufficient to address the stated reliability issues or whether it would meet most of the basic Project objectives. **Table 4-2**, *Screening: Energy Storage Alternative*, provides a brief explanation of the reasons underlying the CPUC's determination.

TABLE 4-2
SCREENING: ENERGY STORAGE ALTERNATIVE

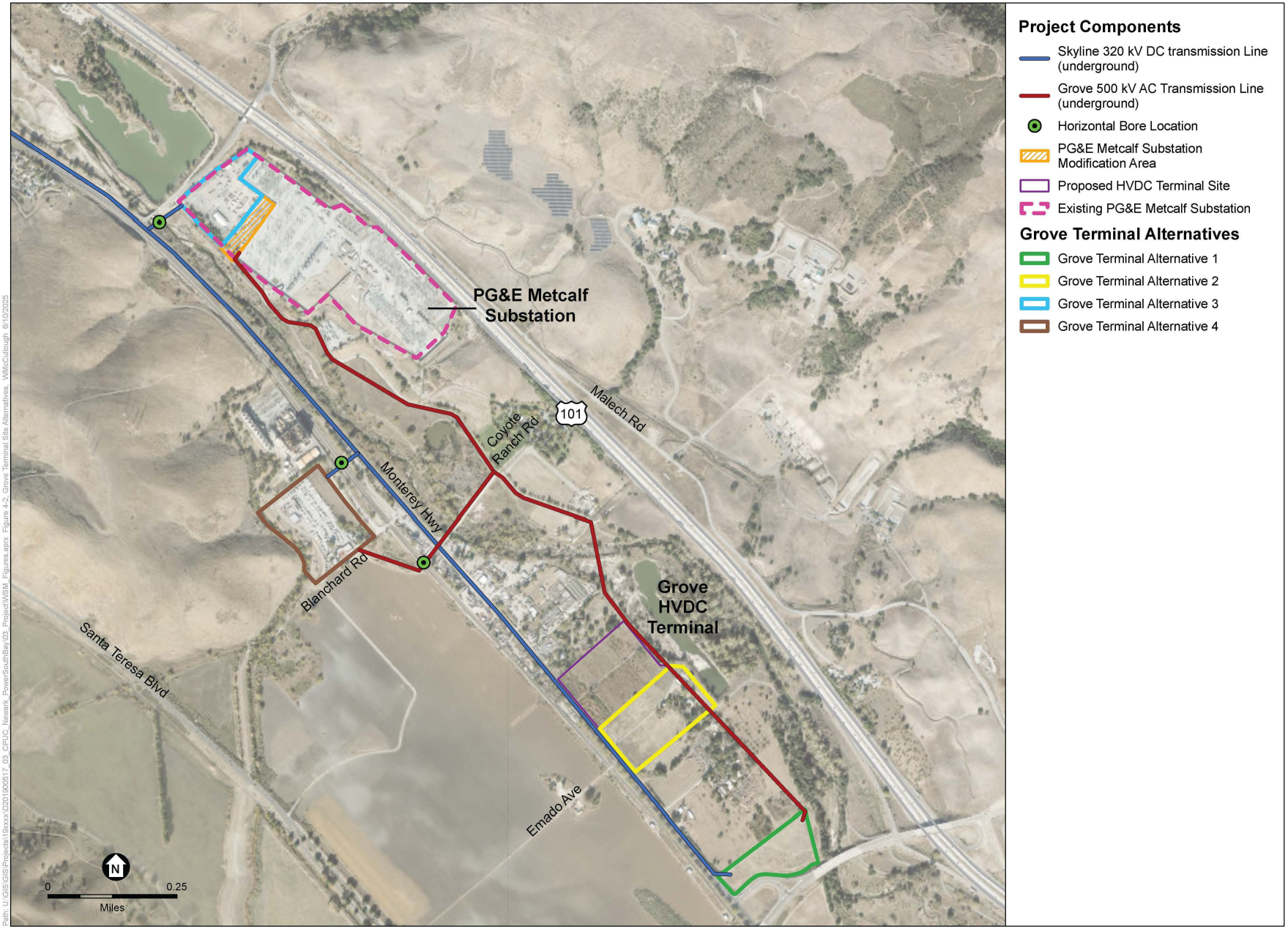
Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Unknown	Because studies have shown that the charging capacity of the San José system is insufficient compared to the size of energy storage needed to address all reliability issues, it is unlikely that this alternative, by itself, would meet crucial Project objectives, such as meeting the CAISO's reliability-driven need by addressing multiple near-, mid-, and long-term reliability issues in the existing San José 115 kV system.
Would the alternative be potentially feasible?	Fail	This alternative would be infeasible due to the insufficient charging capacity of the San José system compared to the size of energy storage that would be needed to address all reliability issues identified in the area.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Pass	Implementation of the alternative would eliminate the need for a transmission line to connect the existing PG&E Metcalf and San Jose B substations. This would result in a reduction of 13 miles of underground transmission line and the associated impacts.
Would the alternative be remote or speculative?	Fail	Because it is unknown whether the alternative is sufficient to address reliability issues or whether it would meet most of the basic Project objectives, this alternative is too speculative.

4.5.3 Grove Terminal Alternative 1

4.5.3.1 Description

Grove Terminal Alternative 1 (GTA-1) would place the proposed Grove HVDC Terminal on an approximately 8.5-acre undeveloped site north of Bailey Road and east of Monterey Road, approximately 0.5 mile south of the proposed Grove HVDC terminal site and approximately 1.2 miles southeast of the existing PG&E Metcalf Substation (see **Figure 4-2**, *Grove Terminal Site Alternatives*). Under this alternative, the general alignment for the Metcalf to Grove 500 kV Transmission Line would proceed from the northern corner of the GTA-1 site towards the northwest for approximately 0.5 mile, where it would join the proposed Metcalf to Grove 500 kV Transmission Line and continue to the proposed modification area at the existing PG&E Metcalf Substation (shown on Figure 4-2). The general alignment for the Grove to Skyline 320 kV Transmission Line would proceed from the southwestern corner of the GTA-1 site for approximately 0.5 mile, where it would join the proposed Grove to Skyline 320 kV Transmission Line and continue to connect to the proposed Skyline HVDC Terminal.

GTA-1 is technically feasible and would achieve the Project objectives. GTA-1 would have a greater impact on biological resources and aesthetics, as well as slightly greater construction-related air quality and transportation impacts, but reduced impacts associated with agricultural resources and noise (e.g., it would avoid potentially significant terminal construction and operational noise).



SOURCE: ESA, 2025

Power Santa Clara Valley Project

Figure 4-2
Grove Terminal Site Alternatives

ESA

4.5.3.2 Rationale for Rejection

GTA-1 would be visible to a greater number of motorists than the Project due to its location along Bailey Avenue and Monterey Road. In addition, the GTA-1 site is visible from the proposed regional trail route on the Bailey Avenue overpass at Monterey Road. Although the aesthetics and potential recreation impacts would be greater than the Project under this alternative from increased visibility, the overall impact designations would not be significant and would be the same as the Project (less than significant).

GTA-1 would also be located adjacent to Coyote Creek which has been identified as a wildlife movement corridor. The Santa Clara Valley Open Space Authority is partnering with the Peninsula Open Space Trust (POST) on the Coyote Valley Wildlife Connectivity Planning Project, which aims to improve safe paths of travel for wildlife and reduce wildlife-vehicle collisions along the triple barrier of Monterey Road, U.S. 101, and the Union Pacific rail line (current Caltrain corridor, future High Speed Rail alignment). The Coyote Valley Wildlife Connectivity Planning Project has identified a potential wildlife overcrossing at or near the GTA-1 site, north of Bailey Avenue. Therefore, implementation of this alternative could have a greater impact on native resident or migratory wildlife movement than the Project.

In addition, this alternative would require an additional approximately 0.5 mile of underground transmission line work for both the proposed Metcalf to Grove 500 kV Transmission Line and proposed Grove to Skyline 320 kV Transmission Line, which could increase construction emissions and traffic and roadway impacts compared to the Project. Thus, GTA-1 could have greater impacts related to air quality, hazards, geology and soils, transportation, and utilities

In summary, with consideration to CEQA Guidelines Section 15126.6(f)(2)(A), as discussed above, GTA-1 would result in increased long-term aesthetics and biological resources impacts, and short-term construction impacts such as those related to air quality, hazards, geology and soils, transportation, and utilities.

Although this alternative would reduce impacts on agricultural resources by avoiding the permanent loss of Prime Farmland that would be developed under the Project, and avoid the significant but mitigatable impact of construction and operational noise due to the site's increased distance from sensitive receptors, the reduced and avoided impacts related to agricultural resources and noise could be achieved with implementation of the Grove Terminal Alternative 3 (GTA-3), without the other increased impacts described above.

For the reasons discussed above, GTA-1 has been screened from more detailed consideration because although the potential alternative would reduce some potentially significant impacts, it could increase other impacts relative to those that would be generated by the Project. **Table 4-3**, *Screening: Grove Terminal Alternative 1*, provides a brief explanation of the reasons underlying the CPUC's determination.

TABLE 4-3
SCREENING: GROVE TERMINAL ALTERNATIVE 1

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Pass	Grove Terminal Alternative 1 would meet the basic project objectives.
Would the alternative be potentially feasible?	Pass	This alternative would be potentially feasible.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Fail	Grove Terminal Alternative 1 would reduce impacts related to agricultural resources and noise; however, it would result in greater long-term impacts related to aesthetics and biological resources, and greater short-term impacts related to air quality, hazards, geology and soils, transportation, and utilities.
Would the alternative be remote or speculative?	Pass	This alternative is not remote or speculative.

4.5.4 Grove Terminal Alternative 2

4.5.4.1 Description

Grove Terminal Alternative 2 (GTA-2) would place the proposed Grove HVDC Terminal on an approximately 14.3-acre site just southeast of the proposed Grove HVDC terminal site and approximately 0.9 mile southeast of the existing PG&E Metcalf Substation (see Figure 4-2). The GTA-2 site is currently occupied by residential and agricultural land uses. GTA-2 is located slightly further away from the existing PG&E Metcalf Substation; therefore, the alternative would require slightly longer alignments for both the proposed Grove to Skyline 320 kV Transmission Line and the proposed Metcalf to Grove 500 kV Transmission Line.

GTA-2 is technically feasible and would achieve the Project objectives. GTA-2 would primarily have similar impacts as the proposed Grove HVDC Terminal, however, would have greater impacts associated with cultural resources, specifically historical resources. GTA-2 would have lesser impacts associated with agricultural resources and noise (e.g., it would result in reduced terminal construction and operational noise levels at the closest receptors to the west).

4.5.4.2 Rationale for Rejection

GTA-2 is anticipated to have greater impacts associated with historic resources due to documented potentially historic resources on the site. Specifically, the GTA-2 site includes one structure (a currently abandoned house) that is potentially a historical resource, the Owen House. The Owen House was originally built and owned by Jehial M. Owen., who is considered a Coyote Valley pioneer (Department of Parks and Recreation 2005). Evaluation of the abandoned Owen House indicates it retains “a high level of historic integrity” and a “rare, surviving example of a Greek Revival Style house.” According the California Department of Parks and Recreation, the Owen House is eligible under California Register Criterion 3 or National Register Criterion C, as well as California Register Criterion 2 and National Register Criterion B (P-43-001760; Department of

Parks and Recreation 2005).[1] While the Office of Historic Preservation does not officially recognize the Owen House as a significant historical resource, the CPUC concurs with the results of the 2005 evaluation (P-43-001760) and LSPGC's determination that the structure is potentially significant under CEQA. For these reasons, GTA-2 represents a greater potential impact associated with cultural resources than the Project.

In addition, GTA-2 would require slightly increased underground transmission line work for both the proposed Grove to Skyline 320 kV Transmission Line and the proposed Metcalf to Grove 500 kV Transmission Line, which could increase construction emissions compared to the Project. Thus, GTA-2 could have greater impacts related to air quality, hazards, geology and soils, transportation, and utilities.

In summary, with consideration to CEQA Guidelines Section 15126.6(f)(2)(A), as discussed above, GTA-2 would result in increased long-term cultural resources impacts, and short-term construction impacts such as those related to air quality, hazards, geology and soils, transportation, and utilities.

Although this alternative would reduce impacts on agricultural resources by avoiding the permanent loss of Prime Farmland that would be developed under the Project and reduce the significant but mitigatable impacts of the terminal construction and operational noise due to its increased distance from sensitive receptors, the reduced impacts related to agricultural resources could be achieved with implementation of GTA-3 and the reduced impacts related to terminal noise would be avoided altogether with GTA-3 without the increased impacts described above.

For the reasons discussed above, GTA-2 has been screened from more detailed consideration because although the potential alternative would reduce some potentially significant impacts, it could increase other impacts relative to those that would be generated by the Project. **Table 4-4**, *Screening: Grove Terminal Alternative 1*, provides a brief explanation of the reasons underlying the CPUC's determination.

TABLE 4-4
SCREENING: GROVE TERMINAL ALTERNATIVE 2

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Pass	Grove Terminal Alternative 2 would meet the basic project objectives.
Would the alternative be potentially feasible?	Pass	This alternative would be potentially feasible.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Fail	Grove Terminal Alternative 2 would reduce impacts related to agricultural resources and noise; however, it would result in greater long-term impacts related to cultural resources and greater short-term impacts related to air quality, hazards, geology and soils, transportation, and utilities.
Would the alternative be remote or speculative?	Pass	This alternative is not remote or speculative.

[1] The California Register of Historical Resources defines California Register Criterion 2 and 3 as structures "associated with the lives of persons important in our past" and "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values," respectively (Office of Historic Preservation 2025). National Register Criterion B "applies to properties with individuals whose specific contributions to history can be identified and documented" and National Register Criterion C "applies to properties significant for their physical design or construction" (National Park Service 1990).

4.5.5 Grove Terminal Alternative 4

4.5.5.1 Description

Grove Terminal Alternative 4 (GTA-4) would place the proposed Grove HVDC Terminal on an approximately 15.7-acre site northwest of the proposed Grove terminal site, south of Monterey Road and the Metcalf Energy Center (see Figure 4-2). The site is mostly developed with residential and recreational vehicle storage uses, with parking and access for the Metcalf Energy Center and railroad tracks to the east, the North Coyote Valley Conservation Area to the south, and Fisher Creek and Tulare Ecological Preserve to the west. The Metcalf to Grove 500 kV Transmission Line would require a trenchless crossing (e.g., jack-and-bore or horizontal directional drill [HDD]) of the existing railroad and the Grove to Skyline 320 kV Transmission Line would require a trenchless crossing of the existing railroad and Coyote Creek to reach the GTA-4 property. GTA-4 would have lesser impacts associated with agricultural resources and noise (e.g., it would result in reduced terminal construction and operational noise levels at the closest receptors).

4.5.5.2 Rationale for Rejection

The GTA-4 site, which is occupied by residential and recreational vehicle storage uses, would require a substantial amount of demolition and site preparation, in addition to at least two additional trenchless crossings of the existing railroad/Coyote Creek. Thus, it would have greater impacts related to air quality, hazards, and utilities. The existing residential and storage uses at the site would have to be removed under this alternative. Additionally, the site is located adjacent to both the North Coyote Valley Conservation Area and the Tulare Hill Ecological Preserve. There would likely be increased impacts to biological resources.

For the reasons discussed above, GTA-4 has been screened from more detailed consideration because although the potential alternative would reduce some potentially significant impacts, it could increase other impacts relative to those that would be generated by the Project. **Table 4-5**, *Screening: Grove Terminal Alternative 4*, provides a brief explanation of the reasons underlying the CPUC's determination.

TABLE 4-5
SCREENING: GROVE TERMINAL ALTERNATIVE 4

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Pass	The Grove Terminal Alternative 4 would meet most or all of the Project's basic objectives.
Would the alternative be potentially feasible?	Pass	This alternative would be potentially feasible.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Fail	While this alternative may avoid or reduce certain impacts of the proposed Project, it is likely to result in more or greater impacts to biological resources, air quality, hazards, and utilities.
Would the alternative be remote or speculative?	Pass	The Grove Terminal Alternative 4 is not remote or speculative.

4.5.6 Metcalf to Grove Transmission Line Alignment Alternative 1

4.5.6.1 Description

The Metcalf to Grove Transmission Line Alignment Alternative 1 exits the proposed Grove HVDC Terminal site towards the northwest, then follows Coyote Creek Trail until reaching and crossing over Coyote Creek attached to a new pedestrian bridge. The alignment then continues underground within Coyote Ranch Road along the same alignment as the proposed Metcalf to Grove Transmission Line Alignment (see **Figure 4-3**, *Metcalf to Grove Transmission Line Alternatives*). This alternative would be approximately 1.2 miles in length and would be located underground except for the segment where the transmission line would be attached to the pedestrian bridge for the crossing of Coyote Creek. The Metcalf to Grove Transmission Line Alignment Alternative 1 would be surrounded by open space, agricultural, residential, and industrial land uses; Coyote Creek; Coyote Creek Trail; Coyote Ranch Road; and the Metcalf substation.

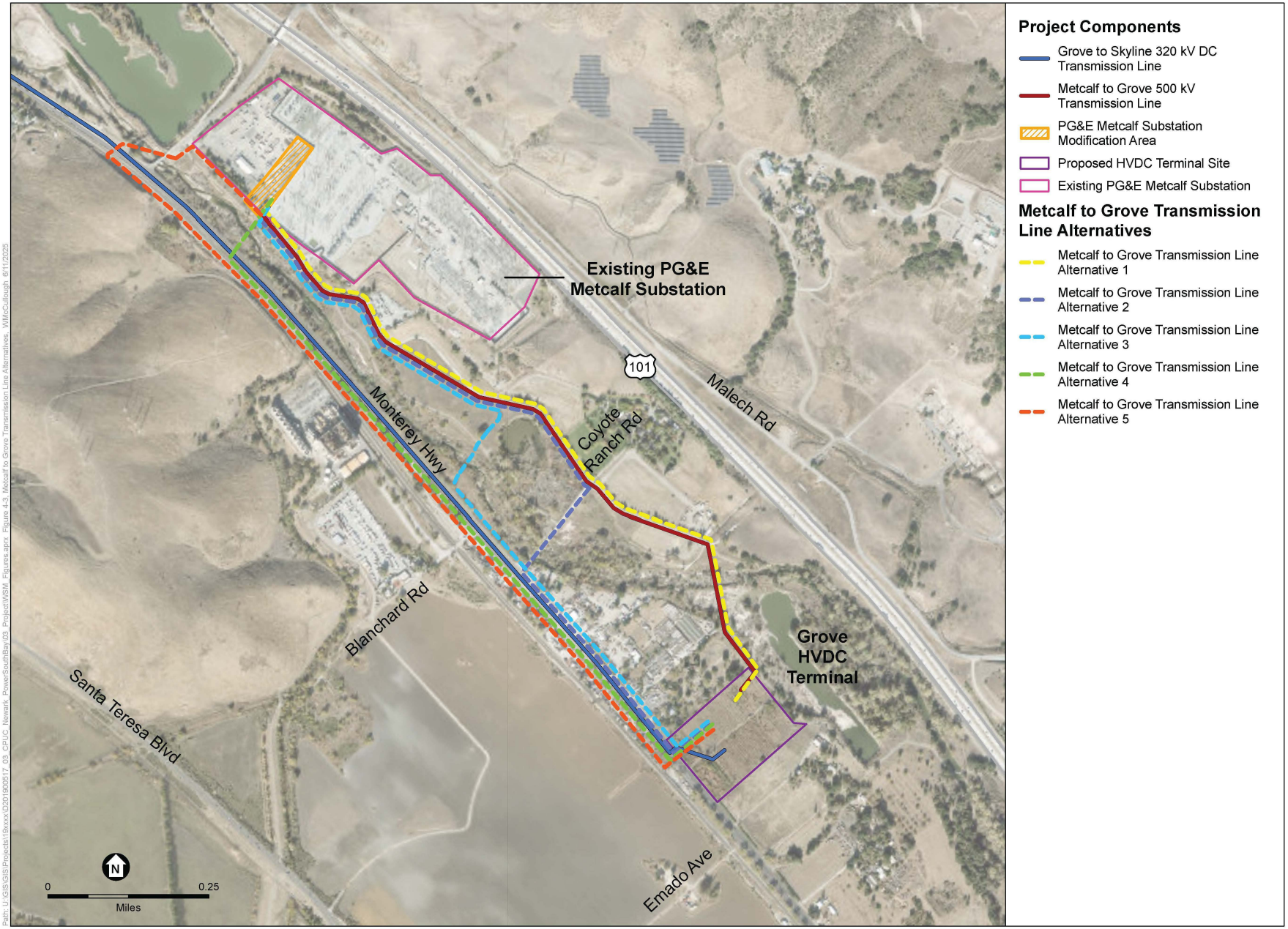
4.5.6.2 Rationale for Rejection

While construction of the pedestrian bridge associated with the Metcalf to Grove Transmission Line Alignment Alternative 1 would have long-term recreational benefits, this alternative would create more and greater impacts to biological resources than the proposed Project. The area is designated as critical habitat for steelhead trout, and the California red-legged frog and western pond turtle have the potential to occur in the vicinity of the bridge location where suitable habitat exists. Construction of the pedestrian bridge and transmission line in this area would potentially impact these sensitive species and habitats. Additionally, above ground construction of the transmission line and pedestrian bridge could have a greater direct effect on the creek, its hydrology, and the creek's water quality than the proposed trenchless crossing of the creek at this location, though these impacts would remain less than significant through implementation of the Project's Stormwater Pollution Prevention Plan (SWPPP) and Applicant-proposed measures (APMs), and adherence to the required wetlands and water permits.

As the impacts described above would be greater than those of the Project (though still less than significant), this alternative has been rejected from further consideration. **Table 4-6**, *Screening: Metcalf to Grove Transmission Line Alignment Alternative 1*, provides a brief overview of the reasons underlying the CPUC's determination.

TABLE 4-6
SCREENING: METCALF TO GROVE TRANSMISSION LINE ALIGNMENT ALTERNATIVE 1

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Pass	The Metcalf to Grove Transmission Line Alignment Alternative 1 would meet the basic Project objectives.
Would the alternative be potentially feasible?	Pass	The alternative would be feasible.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Fail	The Metcalf to Grove Transmission Line Alignment Alternative 1 would likely result in greater impacts to biological resources and hydrology.
Would the alternative be remote or speculative?	Pass	The alternative is not remote or speculative.



SOURCE: ESA, 2025

CPUC Power Santa Clara Valley

Figure 4-3
Metcalf to Grove Transmission Line Alternatives

ESA

4.5.7 Metcalf to Grove Transmission Line Alignment Alternative 2

4.5.7.1 Description

The Metcalf to Grove Transmission Line Alignment Alternative 2 would exit the proposed Grove Terminal underground toward the southwest, then follow Monterey Road for approximately 0.4 mile before turning northeast (see Figure 4-3). South of Coyote Creek the transmission line would transition to an overhead configuration and would be attached to the bottom of a new vehicular road bridge to cross the creek. The vehicular road bridge would also replace the existing failing culverts within the main and secondary Coyote Creek channels. The transmission line would then transition back underground and continue northeast, then northwest within Coyote Ranch Road until reaching the proposed PG&E Metcalf Substation modification area. This alternative would be approximately 1.3 miles in length and would be located underground except for the road bridge segment crossing Coyote Creek. The Metcalf to Grove Transmission Line Alignment Alternative 2 would be surrounded by open space, agricultural and residential land uses, a railroad, industrial development, Coyote Creek, Coyote Creek Trail, and the PG&E Metcalf Substation.

4.5.7.2 Rationale for Rejection

While construction of the vehicular road bridge associated with the Metcalf to Grove Transmission Line Alignment Alternative 2 would result in improvements to the channel and remediate existing road damage, as well as result in long-term benefits to steelhead trout and other wildlife within Coyote Creek from the removal and replacement of the failing culvert system, construction of the bridge would potentially have short-term impacts on riparian habitats, waterways, and sensitive vegetation communities. The area along the creek is designated as critical habitat for steelhead trout, and California red-legged frog and western pond turtle have potential to occur in the vicinity where suitable habitat exists. Construction of the vehicular bridge would potentially impact these sensitive species and habitats and could have a greater direct effect on the creek, its hydrology, and the creek's water quality than the proposed trenchless crossing of the creek. These impacts would remain less than significant through implementation of the Project's Stormwater Pollution Prevention Plan (SWPPP) and applicant proposed measures, and adherence to the required wetlands and water permits.

Furthermore, construction of the underground portion of the transmission line within Monterey Road would result in increased short-term impacts to traffic and transportation given that the Metcalf to Grove 500 kV Transmission Line under the Project would avoid Monterey Road entirely, and would be installed within the less-traveled Coyote Ranch Road. As these impacts would be greater than those of the Project, this alternative has been rejected from further consideration. **Table 4-7**, *Screening: Metcalf to Grove Transmission Line Alignment Alternative 2*, provides a brief overview of the reasons underlying the CPUC's determination.

TABLE 4-7
SCREENING: METCALF TO GROVE TRANSMISSION LINE ALIGNMENT ALTERNATIVE 2

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Pass	The Metcalf to Grove Transmission Line Alignment Alternative 2 would meet the Project's basic objectives.
Would the alternative be potentially feasible?	Pass	The alternative is feasible.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Fail	The Metcalf to Grove Transmission Line Alignment Alternative 2 would have greater impacts to biological resources, hydrology, and transportation, though the alternative may result in some benefits where the proposed Project would not.
Would the alternative be remote or speculative?	Pass	The alternative is not remote or speculative.

4.5.8 Metcalf to Grove Transmission Line Alignment Alternative 3

4.5.8.1 Description

The Metcalf to Grove Transmission Line Alignment Alternative 3 would exit the proposed Grove terminal underground to the southwest, then follow Monterey Road for approximately 0.5 mile before turning northeast (see Figure 4-3). The transmission line would cross under Coyote Creek, utilizing an approximately 500-foot-long HDD. The HDD would also cross under Coyote Creek Trail, paralleling the creek at this location. The transmission line would then continue underground through undeveloped open space for approximately 250 feet until reaching Coyote Ranch Road, continuing underground within Coyote Ranch Road until reaching the proposed PG&E Metcalf Substation modification area. The alternative would be approximately 1.3 miles in length and would be located entirely underground. The Metcalf to Grove Transmission Line Alignment Alternative 3 would be surrounded by open space, agricultural land uses, a railroad, industrial development, Coyote Creek, Coyote Creek Trail, and the existing PG&E Metcalf Substation.

4.5.8.2 Rationale for Rejection

While the Project as proposed would be installed within Coyote Ranch Road, including a portion where the Coyote Creek Trail is co-located with Coyote Ranch Road, the Metcalf to Grove Transmission Line Alignment Alternative 3 would be installed within Monterey Road for approximately 0.5 miles before turning northeast where an HDD would carry the transmission line under Coyote Creek and Coyote Creek Trail. As a result, this alternative would have fewer impacts to recreation than the Project as it would avoid some of the Project's impacts to Coyote Creek Trail during construction. However, due to the installation of the underground portion of the transmission line within Monterey Road, this alternative would result in greater impacts to traffic and transportation.

These impacts would be greater than those of the Project; therefore, this alternative has been rejected from further consideration. **Table 4-8**, *Screening: Metcalf to Grove Transmission Line Alignment Alternative 3*, provides a brief overview of the reasons underlying the CPUC's determination.

TABLE 4-8
SCREENING: METCALF TO GROVE TRANSMISSION LINE ALIGNMENT ALTERNATIVE 3

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Pass	The Metcalf to Grove Transmission Line Alignment Alternative 3 would meet the Project's objectives.
Would the alternative be potentially feasible?	Pass	The alternative is feasible.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Fail	The Metcalf to Grove Transmission Line Alignment Alternative 3 would have greater impacts to traffic and transportation.
Would the alternative be remote or speculative?	Pass	The alternative is not remote or speculative.

4.5.9 Metcalf to Grove Transmission Line Alignment Alternative 4

4.5.9.1 Description

The Metcalf to Grove Transmission Line Alignment Alternative 4 would exit the proposed Grove HVDC Terminal underground towards the southwest, then follow Monterey Road for approximately 1 mile before turning northeast (see Figure 4-3, *Metcalf to Grove Transmission Line Alternatives*) where it would transition to overhead. The transmission line would cross over Coyote Creek and enter the existing PG&E Metcalf Substation as an overhead line, utilizing a new transmission structure on the west side of Coyote Creek and PG&E's new dead-end structure planned within the proposed PG&E Metcalf Substation modification area. The length of the overhead segment would be approximately 400 feet and would cross Coyote Creek Trail as well as Coyote Ranch Road before reaching the proposed PG&E Metcalf Substation modification area. This alternative would be approximately 1.15 miles in length and would be underground except for the final 400 foot crossing of Coyote Creek into the proposed PG&E Metcalf Substation modification area. The underground alignment within Monterey Road would require an approximately 600-foot-long HDD under Fisher Creek. The Metcalf to Grove Transmission Line Alignment Alternative 4 would be surrounded by open space, agricultural land uses, rail lines, industrial development, Coyote Creek, Coyote Creek Trail, and the existing PG&E Metcalf substation.

4.5.9.2 Rationale for Rejection

The Metcalf to Grove Transmission Line Alignment Alternative 4 would cross Coyote Creek overhead via two new transmission structures, while the Project as proposed would be entirely underground. The overhead span would be located near other similar transmission lines crossing Coyote Creek, but would be plainly visible from Monterey Road, Metcalf Road, Coyote Ranch Road, and Coyote Creek Trail. Though the associated aesthetics impacts would likely be less than significant, they would be greater than those of the Project. Additionally, construction of the new above ground structures has the potential to impact sensitive riparian habitats and species within the Coyote Creek riparian corridor. The area is designated as critical habitat for steelhead trout,

and the California red-legged frog and western pond turtle have the potential to occur in the vicinity of the bridge location where suitable habitat exists.

Construction of the transmission structures associated with this alternative would likely have greater impacts to biological species, in addition to hydrological and water quality of the creek. The western structure would be located within the Coyote Creek riparian corridor, within the creek's existing floodway and 100-year floodplain. Construction and maintenance of this structure would impact waters of the state and would require a Lake or Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). Construction of the structure could affect flood flows and surface water hydrology, while impacts to water quality could result from construction and operation activities.

Installation of this alternative's underground transmission line within Monterey Road could also result in greater impacts to transportation, as the entire width of Monterey Road may be subject to closures. The Metcalf to Grove Transmission Line Alignment Alternative 4 may also result in greater impacts to wildfire risk, as the overhead portion installed along the Coyote Creek riparian corridor is surrounded by hardwood woodland, which is considered to have a high wildfire hazard level.

Finally, unknown geotechnical conditions and the spacing and depth of the HDD to be installed under Fisher Creek create feasibility concerns. When considered with the proposed Grove to Skyline 320 kV Transmission Line HDD at this location, the required depth of the HDD for this alternative could thermally limit the rating of the Metcalf to Grove 500 kV Transmission Line to a level below what is required by CAISO's technical specifications for the project (LSPGC 2025a). Required horizontal spacing for the HDDs under Fisher Creek may not allow sufficient space for both HDDs within Monterey Road.

Due to these feasibility concerns and because impacts would be greater than those of the Project as proposed, this alternative has been rejected from further consideration. **Table 4-9**, *Screening: Metcalf to Grove Transmission Line Alignment Alternative 4*, provides a brief overview of the reasons underlying the CPUC's determination.

TABLE 4-9
SCREENING: METCALF TO GROVE TRANSMISSION LINE ALIGNMENT ALTERNATIVE 4

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Unknown	The Metcalf to Grove Transmission Line Alignment Alternative 4 may not meet the Project's objective to meet the technical specifications set forth by CAISO.
Would the alternative be potentially feasible?	Unknown	Without further engineering and construction review, it is unknown whether this alternative is feasible.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Fail	The Metcalf to Grove Transmission Line Alignment Alternative 4 would have greater impacts to biological resources, hydrology, transportation, and wildfire risk.
Would the alternative be remote or speculative?	Pass	The alternative is not remote or speculative.

4.5.10 Metcalf to Grove Transmission Line Alignment Alternative 5

4.5.10.1 Description

The Metcalf to Grove Transmission Line Alignment Alternative 5 would exit the proposed Grove HVDC Terminal underground towards the southwest, then follow Monterey Road for approximately 1.3 miles before turning northeast to cross under Coyote Creek via an HDD in a southwest direction (see Figure 4-3). The HDD would be approximately 500 feet in length and would also cross under Metcalf Road before continuing underground through undeveloped open space and across Coyote Creek for approximately 250 feet until reaching Coyote Ranch Road. The alignment would continue underground within Coyote Ranch Road until reaching the proposed PG&E Metcalf Substation modification area. This alternative would be approximately 1.6 miles in length and would be located entirely underground. The underground alignment within Monterey Road would require an approximately 600-foot-long HDD under Fisher Creek. The Metcalf to Grove Transmission Line Alignment Alternative 5 would be surrounded by open space, agricultural land uses, a railroad, industrial development, Coyote Creek, Coyote Creek Trail, and the existing PG&E Metcalf Substation.

4.5.10.2 Rationale for Rejection

Due to the installation of an additional underground transmission line within Monterey Road, traffic impacts would be greater than the Project. This alternative may require the closure of the entire width of Monterey Road and would require an additional HDD under Fisher Creek in addition to the proposed HDD for the Grove to Skyline 320 kV Transmission Line. Additionally, as with the Metcalf to Grove Transmission Line Alignment Alternative 4, unknown geotechnical conditions and the spacing and depth of the HDD to be installed under Fisher Creek create feasibility concerns. When considered with the proposed Grove to Skyline 320 kV Transmission Line HDD at this location, the required depth of the HDD for this alternative could thermally limit the rating of the Metcalf to Grove 500 kV Transmission Line to a level below what is required by CAISO's technical specifications (LSPGC 2025a). Required horizontal spacing for the HDDs under Fisher Creek may not allow sufficient space for both HDDs within Monterey Road.

Due to these feasibility concerns and because impacts would be greater than those of the Project as proposed, this alternative has been rejected from further consideration. **Table 4-10**, *Screening: Metcalf to Grove Transmission Line Alignment Alternative 5*, provides a brief overview of the reasons underlying the CPUC's determination.

TABLE 4-10
SCREENING: METCALF TO GROVE TRANSMISSION LINE ALIGNMENT ALTERNATIVE 5

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Pass	The Metcalf to Grove Transmission Line Alignment Alternative 5 would meet the Project's objectives.
Would the alternative be potentially feasible?	Unknown	It is unknown whether this alternative is feasible without further engineering and construction review.

TABLE 4-10
SCREENING: METCALF TO GROVE TRANSMISSION LINE ALIGNMENT ALTERNATIVE 5

Screening Criteria	Pass / Fail	Rationale
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Fail	The Metcalf to Grove Transmission Line Alignment Alternative 5 would have more and greater impacts to traffic and transportation.
Would the alternative be remote or speculative?	Pass	The alternative is not remote or speculative.

4.6 Alternatives Evaluated in Detail

Based on initial screening, the CPUC carried forward the following four alternatives for more detailed consideration: the CEQA-required No Project Alternative, Grove Terminal Alternative 3, Downtown Alignment Alternative 1, and Downtown Alignment Alternative 2. Below are descriptions of the alternatives that are evaluated in detail.

4.6.1 No Project Alternative

The Project's purpose is to strengthen the electrical grid in the Greater Bay Area in the County of Santa Clara by increasing the reliability of the San José 115 kV system. In its 2021-2022 planning cycle, the CAISO identified upgrades needed to successfully meet the State of California's policy goals, in addition to examining conventional grid reliability requirements and projects that can bring economic benefits to consumers. The CAISO's analysis revealed current and forecasted overloads in the San José area (CAISO 2022). Specifically, the transmission planning studies prepared by the CAISO identified several reliability concerns consisting of thermal overloads, including a significant load increase of approximately 500 MW in the Silicon Valley Power planning area, resulting in multiple near-term and long-term overloads in the San José area 115 kV system. And as discussed above, the Project has been designed to achieve the technical specifications developed by the CAISO in order to serve the transmission planning forecast. Additionally, the Project would provide benefits in reducing local capacity requirements in the San José sub-area and overall Greater Bay Area that reduces reliance on local gas-fired generation.

Under the No Project Alternative, the Project would not be constructed. The transmission capacity that serves the South Bay of San Francsico Bay region would remain unchanged. In the absence of the Project, the CAISO would need to reassess the system needs and develop additional action(s) in place of the Project and would need to develop further enhancements to the local 115 kV system to address the overloads identified in the system. Further, the distribution system would experience increased system-wide power flow and reliability problems due to overloading the existing source transmission lines as new demand is added to the system, primarily driven by increased datacenter load requirements. This could result in thermal overload and blackouts. Furthermore, improved system reliability needed within the San José area would not be achieved.

Overall, the No Project Alternative would fail to meet each of the Project objectives, and as a result, the San José 115 kV system would continue to experience reliability issues, and the electrical distribution system could become vulnerable to upset.

4.6.2 Grove Terminal Alternative 3

4.6.2.1 Description

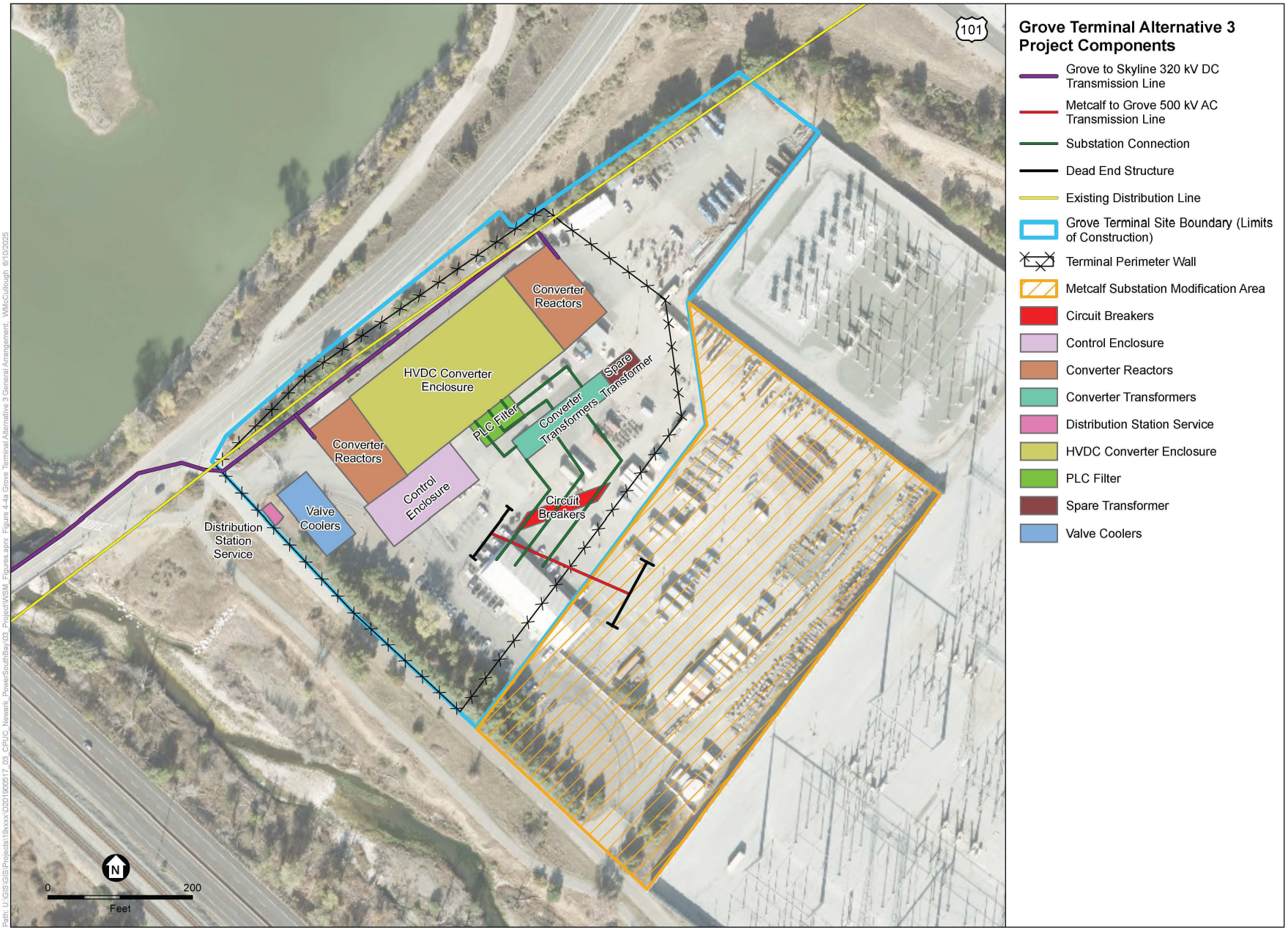
Grove Terminal Alternative 3 (GTA-3) would construct the proposed Grove HVDC Terminal on the property of the existing PG&E Metcalf Substation directly northwest of the proposed Metcalf Substation modification area. The 5.5-acre GTA-3 site is currently part of a developed area at the existing PG&E Metcalf Substation that is being used by PG&E for gas and electric crew operations and maintenance activities including office, staging and storage facilities (see **Figure 4-4a**, *Grove Terminal Alternative 3 General Arrangement*). Since this alternative terminal site would be directly adjacent to the proposed PG&E Metcalf Substation modification area, it would eliminate the need for the proposed 1.2-mile Metcalf to Grove 500 kV Transmission Line, and would instead include construction of a 200-foot Metcalf to Grove 500 kV transmission tie line that would be overhead from the LSPGC dead-end structure within the terminal site to a PG&E-owned dead-end structure inside the proposed PG&E Metcalf Substation modification area. Under GTA-3, the Grove to Skyline 320 kV Transmission Line would enter the site at its western corner, which would reduce the length of the proposed Grove to Skyline 320 kV Transmission Line by approximately 1.2 miles (see **Figure 4-4b**, *Grove Terminal Alternative 3 Transmission Line Alignment*).

Under GTA-3, similar proposed modifications to PG&E Metcalf Substation would be necessary as would occur under the Project to allow the interconnection of the new Metcalf to Grove 500 kV transmission tie line. These proposed modifications include the installation of a new 500 kV bay with associated equipment (e.g., circuit breakers, disconnect switches, bus work, etc.). The existing substation security wall would be extended/relocated approximately 325 feet to the northwest to allow the Metcalf to Grove 500 kV transmission tie line to connect into the existing PG&E Metcalf Substation from the north and also allow future PG&E Metcalf Substation facilities to be developed. Additionally, PG&E would relocate an overhead distribution line to be underground along the northwestern boundary of the GTA-3 site parallel to the 320 kV underground transmission line to accommodate the new terminal layout (LSPGC 2025b; PG&E 2025).

The existing well water system that provides domestic and fire water for PG&E's General Contractor Yard would be removed under GTA-3 due to a conflict with the proposed PG&E Metcalf Substation modification 500 kV bay expansion. The primary purpose for the Project's connection of the site to the nearby public water system is to replace the General Contractor Yard water source; however, under GTA-3, it would not be necessary to extend the public water system service line to the site (PG&E 2025).

4.6.2.2 Construction Requirements

Construction methodologies and installation techniques for GTA-3 would generally be the same as those for the proposed Grove HVDC Terminal, as the same general substation equipment would be required, with a few key differences. Site development would involve increased demolition and excavation activities to remove existing infrastructure and to accommodate required grading elevations. Additional off-site construction materials management and delivery would also be required due to limited on-site storage capacity at the GTA-3 site (LSPGC 2025b). Since the

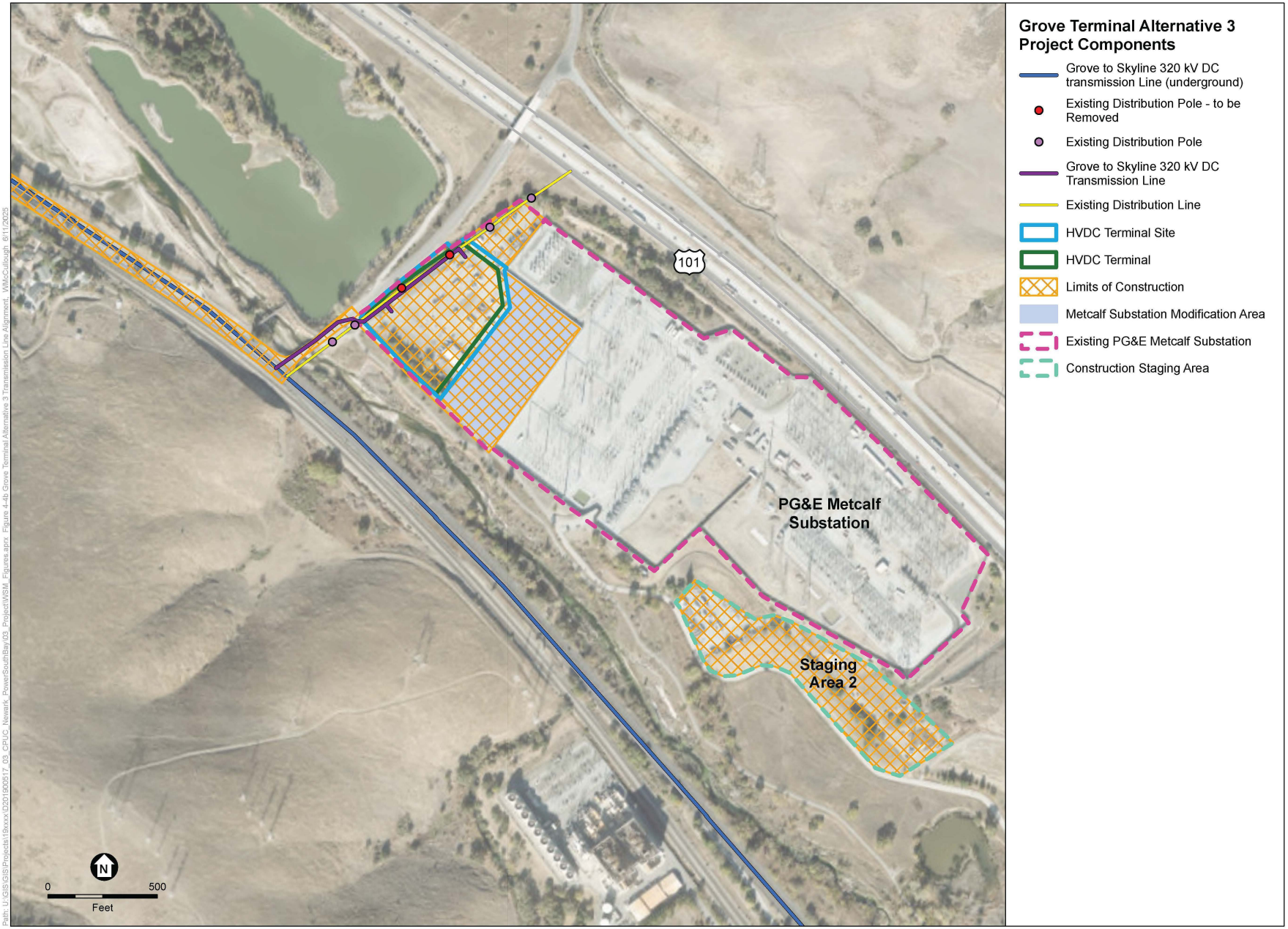


SOURCE: ESA, 2025

Power Santa Clara Valley Project

Figure 4-4a
Grove Terminal Alternative 3 General Arrangement

ESA



SOURCE: ESA, 2025

Power Santa Clara Valley Project

Figure 4-4b
Grove Terminal Alternative 3 Transmission Line Alignment

Metcalf to Grove 500 kV Transmission Line would be constructed as an overhead transmission line, no underground trenching or duct bank installation would be required under GTA-3 for the Metcalf to Grove 500 kV transmission tie line.

The overall construction schedule for the Grove HVDC Terminal under GTA-3 would generally align with the schedule proposed for the Project. Within the construction schedule, however, certain activity durations may extend by a couple months. For example, additional time would be required for site development and preparation activities due to the expanded demolition and excavation, and for subsequent below-grade and above-grade construction given the need for more frequent material deliveries caused by reduced storage capacity at the site. While some individual activities may take longer to complete, LSPGC would plan to maintain a similar overall schedule as the Project. The construction schedule for the Metcalf to Grove 500 kV Transmission Line and the Grove to Skyline 320 kV Transmission Line would be reduced due to the shorter lengths of the line.

Under GTA-3, significantly less material would be excavated (cut), while substantially more material would be placed (fill) compared to the proposed Grove HVDC Terminal. Cut activities for GTA-3 would involve removing unsuitable materials, including the existing asphalt and underlying subbase as required, across much of the GTA-3 site. Substantial fill quantities would be required to elevate portions of the site above the surrounding floodplain to mitigate flood risks at GTA-3 (LSPGC 2025).

4.6.2.3 Relocation of Existing Facilities

Under GTA-3, the existing PG&E "Yard" at the PG&E Metcalf Substation, including office, staging, and storage facilities, would need to be relocated (see Figure 4-2). Crews at the Yard support PG&E's electric and gas operations and maintenance activities. The Yard is located south of San José's main populated areas and slightly north of the communities of Morgan Hill and Gilroy to the south. Due the unique location within PG&E's San José Division, crews staged at PG&E Metcalf Substation Yard support customers to the north within greater San José and to the south. In the event a relocation site is not located very close to the current location, PG&E would be required to identify and develop two locations, one to support customers in greater San José and one to support customers in Morgan Hill and other communities to the south. At this point, PG&E is seeking viable options in greater San José and in the vicinity of Morgan Hill/Gilroy to ensure customer support is maintained.

PG&E has identified a roughly 3.5-acre site in South San José to house its Traffic Control, Insultation and Coating, and General Construction Gas crews. The South San José site is a light industrial site that PG&E could relocate to. Additionally, PG&E has identified a roughly 8-acre site in the Gilroy area for the Transmission Line and General Construction Gas crews. However, this would require development in an existing undeveloped area that may require a conditional use permit. To accommodate the project's construction schedule, PG&E's current plan is to temporarily relocate its Transmission Line and General Construction Gas crews to its existing PG&E Morgan Hill Substation if it cannot secure one or both of the sites discussed above by the time LSPGC would need to occupy a portion of the existing PG&E Metcalf Substation (PG&E 2025).

4.6.2.4 Environmental Impacts

The GTA-3 site, which is currently developed and disturbed and used for parking and staging for the existing PG&E Metcalf Substation, would offer reductions in impacts in comparison to the Project as proposed. For example, the GTA-3 site does not contain agricultural resources and is not designated for agricultural use; siting of the Grove HVDC Terminal at this site would have no impacts on agricultural resources, as opposed to the proposed Grove HVDC Terminal site, which is located on land designated as Prime Farmland and used for agricultural purposes. While construction of the Grove HVDC Terminal at the GTA-3 site would result in similar emissions of criteria pollutants as the Project, the GTA-3 site is not located in close proximity to sensitive receptors, in contrast to the proposed Grove HVDC Terminal site. The nearest sensitive receptor to the GTA-3 site, a residential development to the west-northwest, is located 1,500 feet from the site.

The increased length to the nearest sensitive receptors would also serve to avoid the potentially significant short-term construction and long-term operational noise impacts that would result from construction and operation at the proposed Grove HVDC Terminal site, which is immediately adjacent to two residences. Under GTA-3, implementation of mitigation measures would not be needed to reduce potentially significant daytime construction and operational noise impacts to less-than-significant levels.

Additionally, the GTA-3 site, as discussed above, is located on developed and fenced PG&E property where no biological resources are present or supported. The GTA-3 site would therefore have no impact on biological resources, while the proposed Grove HVDC Terminal site, which is located near sensitive species habitat such as the Coyote Creek corridor, could potentially impact several sensitive species or species of concern.

Wildfire impacts would also be reduced, as the GTA-3 site does not contain fuel for potential wildfires. Finally, constructing the Grove HVDC Terminal at the GTA-3 site would substantially shorten the length of the Metcalf to Grove 500 kV Transmission Line connection to the existing PG&E Metcalf Substation, from approximately 1.2 miles if the proposed Grove HVDC Terminal site were selected, to approximately 100 feet or less using the GTA-3 site. Further, this alternative would also reduce the length of the Grove to Skyline 320 kV Transmission Line by more than 1 mile. Furthermore, this alternative would eliminate most of the potential adverse effects associated with the proposed Metcalf to Grove 500 kV Transmission Line, for example, potential impacts to aesthetics, agricultural and forestry resources, air quality, biological resources, geology, soils, and paleontological resources, hazards and hazardous materials, hydrology and water quality, noise, recreation, transportation, utilities, and wildfire.

As discussed in Section 3.5, *Cultural Resources*, GTA-3 would have similar impacts related to cultural resources, which would be reduced to a less-than-significant level with mitigation. GTA-3 would have similar impacts related to tribal cultural resources, which would be significant and unavoidable, even with the implementation of mitigation measures, as there is high potential for unrecorded subsurface archaeological remains (see discussion under Section 3.18, *Tribal Cultural Resources*). The potential locations of these subsurface archaeological remains could be present in the construction areas for GTA-3.

For a direct comparison of the environmental impacts that would be associated with GTA-3 relative to those that would be associated with the Project, refer to **Table 4-11**, *Summary of Impacts of the Project and Alternatives*.

4.6.3 Downtown Alignment Alternative 1

4.6.3.1 Description

The Downtown Alignment Alternative 1 would begin just north of Interstate 280 (I-280) underpass for First Street and would then turn west onto West Reed Street for approximately 0.3 mile before turning north on Almaden Boulevard. The transmission line would continue north on Almaden Boulevard for approximately 1 mile, including a crossing underneath State Route 87 (SR-87). Then, the transmission line would cross Julian Street and enter the parking lot of a private property leased to Santa Clara County. The transmission line would traverse through the parking lot for approximately 0.2 mile before aligning with the proposed Grove to Skyline 320 kV Transmission Line for the last approximately 0.05 mile (see **Figure 4-5**, *Downtown Alignment Alternatives*).

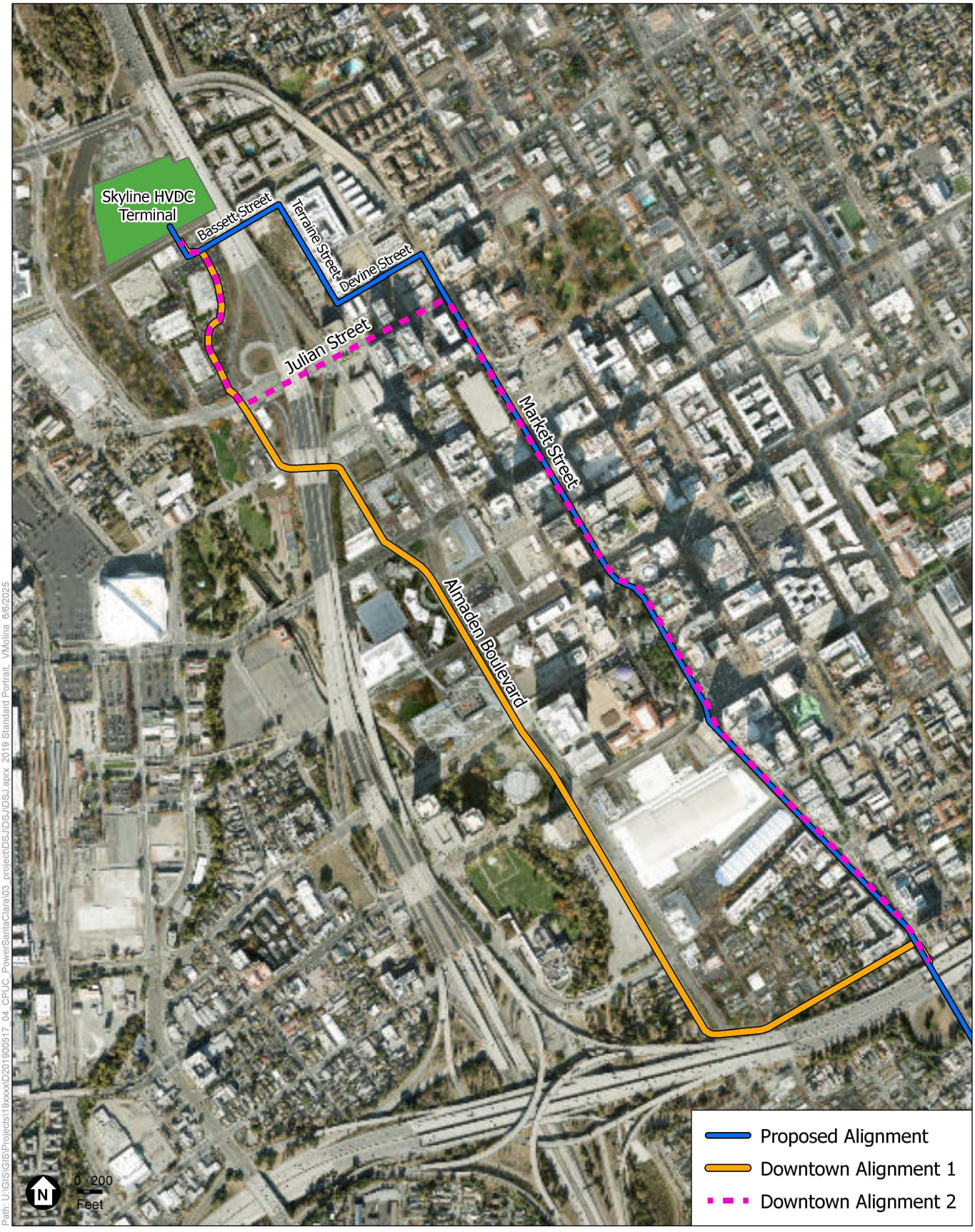
4.6.3.2 Environmental Impacts

The Downtown Alignment Alternative 1 may avoid potential impacts associated with underground utilities and transportation facilities currently already serving downtown San José, but could result in potentially greater impacts to cultural resources and tribal cultural resources, as, based on the archaeological sensitivity analysis presented in Section 3.5, there is a high potential for unrecorded subsurface archaeological materials to be uncovered during the proposed ground-disturbing activities, particularly in areas that are undisturbed. Some of these areas generally include those that would be traversed by Downtown Alignment Alternative 1. This alternative would have similar impacts to all other CEQA resource areas as analyzed under the proposed Project.

4.6.4 Downtown Alignment Alternative 2

4.6.4.1 Description

The Downtown Alignment Alternative 2 would begin just north of the I-280 underpass for First Street and would continue along First Street and Market Street, same as the proposed Grove to Skyline 320 kV Transmission Line for the approximate-first mile. The transmission line would then deviate from the proposed alignment of the Grove to Skyline 320 kV Transmission Line and turn west to follow West Saint James Street, which turns into Julian Street, for approximately 0.3 miles, and would then turn north to enter the parking lot of a private property leased to Santa Clara County. The transmission line would continue north through the parking lot for approximately 0.2 mile before joining the proposed Grove to Skyline 320 kV Transmission Line for the last approximately 0.05 mile (see Figure 4-5).



SOURCE: LSPGC 2025

Power Santa Clara Valley Project

Figure 4-5
Downtown Alignment Alternatives

4.6.4.2 Environmental Impacts

The Downtown Alignment Alternative 2 may avoid potential impacts associated with underground utilities and transportation facilities currently already serving downtown San José, but could result in potentially greater impacts to cultural resources and tribal cultural resources, as, based on the archaeological sensitivity analysis presented in Section 3.5, there is a high potential for unrecorded subsurface archaeological materials to be uncovered during the proposed ground-disturbing activities, particularly in areas that are undisturbed. Some of these areas generally include those that would be traversed by Downtown Alignment Alternative 2. This alternative would have similar impacts to all other CEQA resource areas as analyzed under the proposed Project.

4.6.5 Combinations of Alternatives Evaluated in Detail

The above-described alternatives could be combined to form different Project configurations. Therefore, each configuration has been considered separately to determine which combination of transmission line alignments and locations of the Grove HVDC Terminal site would present the most environmentally superior option. The following descriptions provide analyses of the proposed and alternative alignments with the proposed and alternative Grove HVDC Terminal sites.

4.6.5.1 Proposed Alignment + Grove Terminal Alternative 3 (Alternative Combination 1)

This alternative combine installing the alignment of the Grove to Skyline 320 kV Transmission Line, as proposed, with the Grove HVDC Terminal Site located at the GTA-3 site (Alternative Combination 1, or AC-1). The potential impacts resulting from construction and operation of the Grove to Skyline 320 kV Transmission Line under this alternative would be similar as described in the Chapter 3 resource sections. However, the impacts associated with the construction of the Grove HVDC Terminal would be reduced. Specifically, this alternative would avoid or reduce impacts, as described above in Section 4.6.2, to aesthetics, agricultural and forestry resources, air quality, biological resources, energy, geology, soils, and paleontological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, recreation, transportation, utilities, and wildfire.

4.6.5.2 Downtown Alignment Alternative 1 + Proposed Grove Terminal Site (Alternative Combination 2)

This alternative combine installing the downtown portion of the Grove to Skyline 320 kV Transmission Line along West Reed Street, then Almaden Boulevard, with the Grove HVDC Terminal at the proposed location for the Project (Alternative Combination 2, or AC-2). This alternative may be necessary in the event the proposed alignment (i.e., Proposed Alignment in Figure 4-5) at downtown San José is determined to be infeasible, for example, due to the presence of underground utilities in the area through which the downtown portion of the proposed Grove to Skyline 320 kV Transmission Line passes. However, this alternative may result in increased impacts associated with potentially sensitive cultural resources along Almaden Boulevard (e.g., potential unrecorded subsurface archaeological materials). The impacts resulting from construction of the Grove HVDC Terminal would remain as described in the Chapter 3 resource sections.

4.6.5.3 Downtown Alignment Alternative 1 + Grove Terminal Alternative 3 (Alternative Combination 3)

This alternative would install the downtown portion of the Grove to Skyline 320 kV Transmission Line along West Reed Street, then Almaden Boulevard, with the Grove HVDC Terminal constructed at the GTA-3 alternative site (Alternative Combination 3, or AC-3). This alternative may be necessary in the event the proposed alignment (i.e., Proposed Alignment in Figure 4-5) at downtown San José is determined to be infeasible, for example, due to the presence of underground utilities in the area through which the downtown portion of the proposed Grove to Skyline 320 kV Transmission Line passes. The potential impacts resulting from construction and operation of the Grove to Skyline 320 kV Transmission Line would be primarily similar as those described in the Chapter 3 resource sections; however, the impacts associated with the construction of the Grove HVDC Terminal would be reduced.

Construction of the Grove HVDC Terminal at the GTA-3 site would avoid or reduce impacts to aesthetics, agricultural and forestry resources, air quality, biological resources, energy, geology, soils, and paleontological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, recreation, transportation, utilities, and wildfire. While installing the alignment of the Grove to Skyline 320 kV Transmission Line would have lesser impacts associated with utilities, potential impacts associated with cultural resources and tribal cultural resources could increase as there could be potentially sensitive cultural resources along Almaden Boulevard (e.g., potential unrecorded subsurface archaeological materials).

4.6.5.4 Downtown Alignment Alternative 2 + Proposed Grove Terminal Site (Alternative Combination 4)

Combined with the proposed Grove HVDC Terminal site, this alternative would install the downtown portion of the Grove to Skyline 320 kV Transmission Line along Market Street, then Julian Street, and then through the parking lot of a private property leased to Santa Clara County (see Section 4.6.4) (Alternative Combination 4, or AC-4). This alternative may be necessary in the event the proposed alignment (i.e., Proposed Alignment in Figure 4-5) at downtown San José is determined to be infeasible, for example, due to the presence of underground utilities in the area through which the downtown portion of the proposed Grove to Skyline 320 kV Transmission Line passes.

This alternative would have similar impacts for the construction of the proposed Grove HVDC Terminal as those described in the Chapter 3 resource sections; however, while impacts associated with utilities could be reduced, installation of the Grove to Skyline 320 kV Transmission Line under this alternative could increase impacts to cultural resources and tribal cultural as there could be potentially sensitive cultural resources along Market Street (e.g., potential unrecorded subsurface archaeological materials).

4.6.5.5 Downtown Alignment Alternative 2 + Grove Terminal Alternative 3 (Alternative Combination 5)

This alternative combine installing the Grove HVDC Terminal at the GTA-3 alternative site and the Grove to Skyline 320 kV Transmission Line along Market Street, then Julian Street, and then through the parking lot of a private property leased to Santa Clara County (see Section 4.6.4) (Alternative Combination 5, or AC-5). This alternative may be necessary in the event the proposed alignment (i.e., Proposed Alignment in Figure 4-5) at downtown San José is determined to be infeasible, for example, due to the presence of underground utilities in the area through which the downtown portion of the proposed Grove to Skyline 320 kV Transmission Line passes.

Under this alternative, construction of the Grove HVDC Terminal would avoid or reduce impacts, to aesthetics, agricultural and forestry resources, air quality, biological resources, energy, geology, soils, and paleontological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, recreation, transportation, utilities, and wildfire. However, while impacts associated with utilities could be reduced, installation of the Grove to Skyline 320 kV Transmission Line under this alternative could increase impacts on cultural resources and tribal cultural as there could be potentially sensitive cultural resources along Market Street (e.g., potential unrecorded subsurface archaeological materials).

4.7 Comparison Methodology

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

- **Step 1: Determine the Project's Environmental Impacts.** Potential environmental impacts of the Project are identified and analyzed in Chapter 3, including potential direct, indirect, and cumulative impacts related to construction, operation, and maintenance activities.
- **Step 2: Identify Alternatives.** Informed by the potential significant impacts of the Project (including its significant and unavoidable impacts) and considering other elements of the alternatives screening and development process described in Section 4.2, the CPUC identified Downtown Alignment Alternative 1, Downtown Alignment Alternative 2, Grove Terminal Alternative 3, and the No Project Alternative as those to be carried forward for more detailed environmental review.
- **Step 3: Compare Impacts.** As a final step, the CPUC conducted a comparative analysis of the environmental impacts of the combinations of Downtown Alignment Alternative 1, Downtown Alignment Alternative 2, Grove Terminal Alternative 3, and the No Project Alternative relative to the potential environmental impacts of the Project to make a preliminary determination of the Environmentally Superior Alternative.

4.8 Comparison of Alternatives

The comparison of alternatives provided in **Table 4-11**, *Summary of Impacts of the Project and Alternatives,* is designed to satisfy the requirements of CEQA Guidelines section 15126.6(d), which states:

> *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 project as proposed.

4.9 Environmentally Superior Alternative

Under CEQA, the environmentally superior alternative is the alternative with the least adverse impacts on the project area and its surrounding environment. The No Project Alternative is considered the environmentally superior alternative for CEQA purposes because it would avoid all impacts of the Project. However, the No Project Alternative would fail to meet the basic objectives of the Project (see Section 4.3.1). When the environmentally superior alternative is the No Project Alternative, CEQA requires the EIR to also identify an environmentally superior alternative from among the other Project alternatives.

Determining an environmentally superior alternative can be difficult because of the many factors that must be balanced. Nonetheless, at this stage of this Draft EIR, the combination of the "Proposed Alignment + Grove Terminal Alternative 3" (i.e., Alternative Combination 1, or AC-1) has been determined to be preferred because, relative to the Project, would avoid or reduce potentially significant impacts of the Project on aesthetics, agricultural and forestry resources, air quality, biological resources, energy, geology, soils, and paleontological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, recreation, transportation, utilities, and wildfire. However, AC-1 would potentially result in greater environmental impacts related to cultural resources, tribal cultural resources, and utilities.

As discussed above under Section 4.6.2, placing the Grove HVDC Terminal next to the existing PG&E Metcalf Substation would result in the avoidance of converting Prime Farmland to non-agricultural uses, which would otherwise have a potentially significant impact (less-than-significant with mitigation) under the Project. Further, since AC-1 would result in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line by approximately 1.2 miles each, construction-related short-and long-term impacts from trenchless construction would be reduced for several resources, as noted above. For example, the significantly shorter Metcalf to Grove 500 kV Transmission Line would no longer traverse 1.2 miles along Coyote Creek Trail and Coyote Creek, which, under the Project, would result in potentially significant impacts associated with biological resources, recreation, and transportation, among other resource areas.

However, placing the Grove HVDC Terminal within the existing PG&E Metcalf Substation is anticipated to have potential impacts related to cultural resources, which would be reduced to a less-than-significant level with mitigation. Further, AC-1 would have similar impacts related to tribal cultural resources, which would be significant and unavoidable, even with the implementation of mitigation measures, as there is high potential for unrecorded subsurface archaeological remains. Furthermore, it is expected at this stage of the Draft EIR that AC-1 would have similar impacts to utilities as the Project, with particular consideration to the utilities at the northern portion of the Project, in the vicinity of downtown San José. It is anticipated that, compared to the

Project, AC-1 would result in similar to lesser impacts across most resource areas discussed in Chapter 3. For these reasons, AC-1 is considered the environmentally superior alternative.

Additional information received in or developed during the agency and public review period for the Draft EIR, or during the Project approval process, could affect the balancing of the respective benefits and consequences of the alternatives. Accordingly, while a preliminary determination has been made that AC-1 would be the Environmentally Superior Alternative, it would be premature to formally designate it as such at this stage. This preliminary determination as to which alternative is the Environmentally Superior Alternative will be confirmed or corrected in the Final EIR.

4.10 References

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TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Aesthetics						
Criterion a: No Impact. The Project would not have a substantial adverse effect on a scenic vista. **Criterion b:** No Impact. The Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. **Impact 3.1-1: LTS.** The Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality in the area. **Impact 3.1-2: LSM**. The Project would create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area. **Cumulative – Criterion a:** No Impact. The Project would not contribute to cumulative impacts related to this criterion. **Cumulative – Criterion b:** No Impact. The Project would not contribute to cumulative impacts related to this criterion. **Impact C.3.1-1: LTS.** The Project, in combination with the cumulative projects, would not cumulatively conflict with applicable zoning and other regulations governing scenic quality in the area. **Impact C.3.1-2: LSM.** The Project, in combination with the cumulative projects, would not create a new source of substantial light or glare which would cumulatively adversely affect daytime or nighttime views in the area.	**Overall: Less than the Project** **Criterion a:** No Impact (same as the Project) because no transmission project–related development would occur that could have a substantial adverse effect on a scenic vista. **Criterion b:** No Impact (same as the Project) because no transmission project-related development would occur that could substantially degrade the existing visual character or quality of public views of the site and its surroundings. **Criterion c:** No Impact (less than the Project) because no transmission project–related development would occur that could conflict with applicable zoning and other regulations governing scenic quality in the area. **Criterion d:** No Impact (less than the Project) because no transmission project–related development would occur that could create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Overall: Less than the Project.** **Criterion a:** No Impact (same as the Project) because there are no designated scenic vistas in the area. **Criterion b:** No Impact (same as the Project) because the project under this alternative would not be visible from designated or eligible state scenic highways due to distance. **Impact 3.1-1: LTS** (less than the Project) because the GTA-3 site at the existing PG&E Metcalf Substation has a more industrial visual character that would result in less contrast than the proposed Grove terminal site that has a mix of natural and developed elements. **Impact 3.1-2: LSM** (same as the Project) because like the proposed Grove HVDC Terminal site, the Grove HVDC Terminal under this alternative would not introduce a new source of light or glare that would adversely affect daytime or nighttime views in the area. **Cumulative – Criteria a and b:** No Impacts (same as the Project) because this alternative would not contribute to cumulative impacts related to these criteria. **Impact C.3.1-1: LTS** (same as the Project) because GTA-3, in combination with cumulative project No. 77, would not cumulatively conflict with applicable zoning and other regulations governing scenic quality in the area. **Impact C.3.1-2: LSM** (same as the Project) because GTA-3, in combination with cumulative project No. 77, would not create more sources of substantial light or glare than the Project that would cumulatively adversely affect daytime or nighttime views in the area.	**Overall: Same as the Project.** **Criterion a:** No Impact (same as the Project) because there are no designated scenic vistas in the area. **Criterion b:** No Impact (same as the Project) because the project under Alternative 1 would not be visible from designated or eligible state scenic highways due to distance. **Impact 3.1-1: LTS** (same as the Project) because this alternative would result in the same amount of above ground facilities that would be visible to the public as the Project. **Impact 3.1-2: LSM** (same than the Project) because this alternative would create the same amount of substantial light or glare which would adversely affect daytime or nighttime views in the area. **Cumulative – Criteria a and b:** No Impacts (same as the Project) because this alternative would not contribute to cumulative impacts related to these criteria. **Impact C.3.1-1: LTS** (same as the Project) because this alternative would result in the same amount of above ground facilities that would be visible to the public and contribute to the cumulative impact as the Project. **Impact C.3.1-2: LSM** (same as the Project) because this alternative would create the same amount of substantial light or glare as the Project that would cumulatively, adversely affect daytime or nighttime views in the area.	**Overall: Less than the Project.** **Criterion a:** No Impact (same as the Project) because there are no designated scenic vistas in the area. **Criterion b:** No Impact (same as the Project) because the project under this alternative would not be visible from designated or eligible state scenic highways due to distance. **Impact 3.1-1: LTS** (less than the Project) because the GTA-3 site at the existing PG&E Metcalf Substation has a more industrial visual character that would result in less contrast than the proposed Grove terminal site that has a mix of natural and developed elements. **Impact 3.1-2: LSM** (same as the Project) because this alternative would create the same amount of substantial light or glare which would adversely affect daytime or nighttime views in the area. **Cumulative – Criteria a and b:** No Impacts (same as the Project) because this alternative would not contribute to cumulative impacts related to these criteria. **Impact C.3.1-1: LTS** (same as the Project) (same as the Project) because GTA-3, in combination with cumulative project No. 77, would not cumulatively conflict with applicable zoning and other regulations governing scenic quality in the area. **Impact C.3.1-2: LSM** (same as the Project) because GTA-3, in combination with cumulative project No. 77 would not create more sources of substantial light or glare than the Project that would cumulatively adversely affect daytime or nighttime views in the area.	**Overall: Same as the Project.** **Criterion a:** No Impact (same as the Project) because there are no designated scenic vistas in the area. **Criterion b:** No Impact (same as the Project) because the project under Alternative 1 would not be visible from designated or eligible state scenic highways due to distance. **Impact 3.1-1: LTS** (same than the Project) because this alternative would result in the same amount of above ground facilities that would be visible to the public as the Project. **Impact 3.1-2: LSM** (same than the Project) because this alternative would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area. **Cumulative – Criteria a and b:** No Impacts (same as the Project) because this alternative would not contribute to cumulative impacts related to these criteria. **Impact C.3.1-1: LTS** (same as the Project) because this alternative would result in the same amount of above ground facilities that would be visible to the public and contribute to the cumulative impact as the Project. **Impact C.3.1-2: LSM** (same as the Project) because this alternative would create the same amount of substantial light or glare as the Project that would cumulatively, adversely affect daytime or nighttime views in the area.	**Overall: Less than the Project.** **Criterion a:** No Impact (same as the Project) because there are no designated scenic vistas in the area. **Criterion b:** No Impact (same as the Project) because the project under this alternative would not be visible from designated or eligible state scenic highways due to distance. **Impact 3.1-1: LTS** (less than the Project) because the GTA-3 site at the existing PG&E Metcalf Substation has a more industrial visual character that would result in less contrast than the proposed Grove terminal site that has a mix of natural and developed elements. **Impact 3.1-2: LSM** (same as the Project) because like the proposed Grove HVDC Terminal site, the Grove HVDC Terminal under this alternative would not introduce a new source of light or glare that would adversely affect daytime or nighttime views in the area. **Cumulative – Criteria a and b:** No Impacts (same as the Project) because this alternative would not contribute to cumulative impacts related to these criteria. **Impact C.3.1-1: LTS** (same as the Project) (same as the Project) because GTA-3, in combination with cumulative project No. 77, would not cumulatively conflict with applicable zoning and other regulations governing scenic quality in the area. **Impact C.3.1-2: LSM** (same as the Project) because GTA-3, in combination with cumulative project No. 77, would not create more sources of substantial light or glare than the Project that would be cumulatively adversely affect daytime or nighttime views in the area.

TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Agriculture and Forestry Resources						
Impact 3.2-1: LSM. The Project would convert Prime Farmland, as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural use. **Criterion b:** No Impact. The Project would not conflict with existing zoning for agricultural use or a Williamson Act contract. **Criterion c:** The Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]). **Criterion d:** The Project would not result in the loss of forest land or conversion of forest land to non-forest use. **Impact: 3.2-2: LSM.** The Project would involve other changes in the existing environment which could result in conversion of agricultural land to non-agricultural use. **Impact C.3.2-1: LSM.** The Project could cause a cumulatively considerable contribution to a significant cumulative effect due to conversion of Farmland to non-agricultural use, and could cause or contribute to a significant cumulative effect due to changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. **Cumulative – Criterion b:** No Impact. The Project would not contribute to cumulative impacts related to this criterion. **Cumulative – Criterion c:** No Impact. The Project would not contribute to cumulative impacts related to this criterion. **Cumulative - Criterion d:** No Impact. The Project would not contribute to cumulative impacts related to this criterion.	**Overall: Less than the Project** **Criterion a:** No Impact (less than the Project) because no transmission project–related development would occur that could convert Prime Farmland to non-agricultural use. **Criterion b:** No Impact (same as the Project) because no transmission project-related development would occur that could conflict with existing zoning for agricultural use or a Williamson Act. **Criterion c:** No Impact (same as the Project) because no transmission project-related development would occur that could conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **Criterion d:** No Impact (same as the Project) because no transmission project-related development would occur that could result in the loss of forest land or conversion of forest land to non-forest use. **Criterion e:** No Impact (less than the Project) because no transmission project–related development would involve other changes in the existing environment which could result in conversion of agricultural land to non-agricultural use **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Overall: Less than the Project** **Criterion a:** No Impact (less than the Project) because GTA-3 would not convert Prime Farmland to non-agricultural use. **Criterion b:** No Impact (same as the Project) because GTA-3 would not conflict with existing zoning for agricultural use or a Williamson Act. **Criterion c:** No Impact (same as the Project) because GTA-3 would not conflict with existing zoning for, or cause rezoning of, forest land, or timberland zoned Timberland Production. **Criterion d:** No Impact (same as the Project) because this alternative would not result in the loss of forest land or conversion of forest land to non-forest use. **Criterion e:** No Impact (less than the Project) because this alternative would not involve other changes in the existing environment which could result in conversion of agricultural land to non-agricultural use. **Cumulative –** **Criterion a:** No Impact (less than the Project) because this alternative would not result in a conversion of Farmland to non-agricultural use that could contribute to a cumulative impact under this criterion. **Criteria b, c, and d:** No Impact (same as the Project) because this alternative would not result in impacts that would contribute to cumulative impacts related to these criteria.	**Overall: Same as the Project** **Impact 3.2-1: LSM** (same as the Project) because this alternative would continue to convert Prime Farmland at the proposed Grove terminal site to non-agricultural use. **Criterion b:** No Impact (same as the Project) because this alternative would not conflict with existing zoning for agricultural use or a Williamson Act. **Criterion c:** No Impact (same as the Project) because this alternative would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **Criterion d:** No Impact (same as the Project) because this alternative would not result in the loss of forest land or conversion of forest land to non-forest use. **Impact 3.2-2: LSM** (same as the Project) because this alternative would continue to involve other changes in the existing environment at the proposed Grove terminal site that could result in conversion of agricultural land to non-agricultural use. **Impact C.3.2-1: LSM** (same as the Project) because this alternative could cause a cumulatively considerable contribution to a significant cumulative effect due to conversion of Farmland to non-agricultural use, and could cause or contribute to a significant cumulative effect due to changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. **Cumulative – Criteria b, c, and d:** No Impact (same as the Project) because this alternative would not result in impacts that would contribute to cumulative impacts related to these criteria.	**Overall: Less than the Project** **Criterion a:** No Impact (less than the Project) because GTA-3 would not convert Prime Farmland to non-agricultural use. **Criterion b:** No Impact (same as the Project) because this alternative would not conflict with existing zoning for agricultural use or a Williamson Act. **Criterion c:** No Impact (same as the Project) because this alternative would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **Criterion d:** No Impact (same as the Project) because this alternative would not result in the loss of forest land or conversion of forest land to non-forest use. **Criterion e:** No Impact (less than the Project) because this alternative would not involve other changes in the existing environment which could result in conversion of agricultural land to non-agricultural use. **Cumulative –** **Criterion a:** No Impact (less than the Project) because this alternative would not result in a conversion of Farmland to non-agricultural use that could contribute to a cumulative impact under this criterion. **Criteria b, c, and d:** No Impact (same as the Project) because this alternative would not result in impacts that would contribute to cumulative impacts related to these criteria.	**Overall: Same as the Project** **Impact 3.2-1: LSM** (same as the Project) because this alternative would continue to convert Prime Farmland at the proposed Grove terminal site to non-agricultural use. **Criterion b:** No Impact (same as the Project) because this alternative would not conflict with existing zoning for agricultural use or a Williamson Act. **Criterion c:** No Impact (same as the Project) because this alternative would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **Criterion d:** No Impact (same as the Project) because this alternative would not result in the loss of forest land or conversion of forest land to non-forest use. **Impact 3.2-2: LSM** (same as the Project) because this would continue to involve other changes in the existing environment at the proposed Grove terminal site that could result in conversion of agricultural land to non-agricultural use. **Impact C.3.2-1: LSM** (same as the Project) because this alternative could cause a cumulatively considerable contribution to a significant cumulative effect due to conversion of Farmland to non-agricultural use, and could cause or contribute to a significant cumulative effect due to changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. **Cumulative – Criteria b, c, and d:** No Impact (same as the Project) because this alternative would not result in impacts that would contribute to cumulative impacts related to these criteria.	**Overall: Less than the Project** **Criterion a:** No Impact (less than the Project) because GTA-3 would not convert Prime Farmland to non-agricultural use. **Criterion b:** No Impact (same as the Project) because this alternative would not conflict with existing zoning for agricultural use or a Williamson Act. **Criterion c:** No Impact (same as the Project) because this alternative would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **Criterion d:** No Impact (same as the Project) because this alternative would not result in the loss of forest land or conversion of forest land to non-forest use. **Criterion e:** No Impact (less than the Project) because this alternative would not involve other changes in the existing environment which could result in conversion of agricultural land to non-agricultural use. **Cumulative – Criterion a:** No Impact (less than the Project) because this alternative would not result in a conversion of Farmland to non-agricultural use that could contribute to a cumulative impact under this criterion. **Criteria b, c, and d:** No Impact (same as the Project) because this alternative would not result in impacts that would contribute to cumulative impacts related to these criteria.

TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Air Quality						
Impact 3.3-1: LSM. The Project would conflict with or obstruct implementation of the applicable air quality plan. **Impact 3.3-2: LSM.** The Project would result in a cumulatively considerable net increase of criteria pollutants for which the project region is nonattainment under an applicable federal or State ambient air quality standard. **Impact 3.3-3: LSM.** The Project would expose sensitive receptors to substantial pollutant concentrations. **Impact 3.3-4: LTS.** The Project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. **Impact C.3.3-1: LSM.** The Project's impact related to a conflict with or obstruction of implementation of the applicable air quality plans for the Bay Area Air Quality Management District would be cumulatively considerable. **Impact C.3.3-2: LSM.** The Project impact related to generation of a net increase in criteria pollutants for which the Project region is nonattainment under an applicable federal or State ambient air quality standard would be cumulatively considerable. **Impact C.3.3-3: LSM.** The Project's impact related to exposure of sensitive receptors to pollutant concentrations would be cumulatively considerable. **Impact C.3.3-4: LTS.** The Project's impact related to emissions (such as those leading to odors) adversely affecting people would not be cumulatively considerable.	**Overall: Less than the Project** **Criterion a:** No Impact (less than the Project) because no transmission project–related development would occur that could conflict with or obstruct implementation of the applicable air quality plan. **Criterion b:** No Impact (less than the Project) because no transmission project–related development would occur that could result in a cumulatively considerable net increase of criteria pollutants for which the project region is nonattainment under an applicable federal or State ambient air quality standard. **Criterion c:** No Impact (less than the Project) because no transmission project–related development would occur that could expose sensitive receptors to substantial pollutant concentrations. **Criterion d:** No Impact (less than the Project) because no transmission project–related development would occur that could result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. **Cumulative -** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Overall: Less than the Project** **Impact 3.3-1: LSM** (less than the Project) because this alternative would reduce the lengths of both the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV AC Transmission Line by approximately 1.2 miles, which would result in a decrease in the generation of short-term air pollutants. **Impact 3.3-2: LSM** (less than the Project) because this alternative would reduce the lengths of both the proposed transmission lines, which would result in a decrease in the generation of short-term air pollutants. **Impact 3.3-3: LSM for the proposed Skyline terminal site; LTS for the GTA-3 site** (less than the Project). Because the nearest sensitive receptors are farther than 1,000 feet from the GTA-3 site, sensitive receptor exposure to pollutant concentrations would be substantially reduced compared to the Project. **Impact 3.3-4: LTS** (less than the Project) because this alternative would reduce sensitive receptor exposure to odors due to the location of the GTA-3 site and the reduced lengths of both the proposed transmission lines. **Impact C.3.3-1: LSM** (less than the Project) because this alternative would result in the generation of decreased emissions that would contribute to the cumulative impact. **Impact C.3.3-2: LSM** (less than the Project) because this alternative would result in the generation of decreased emissions that would contribute to the cumulative impact. **Impact C.3.3-3: LSM for the proposed Skyline terminal site; LTS for the GTA-3 site** (less than the Project) because this alternative's contribution to cumulative sensitive receptor exposure to pollutant concentrations would be substantially reduced compared to the Project. **Impact C.3.3-4 LSM** (less than the Project) because this alternative's contribution to cumulative sensitive receptor exposure to odors would be reduced due to the location of the GTA-3 site and the reduced lengths of both the proposed transmission lines.	**Overall: Same as the Project** **Impact 3.3-1: LSM** (same as the Project) because this alternative would result in the generation of a similar amount of air pollutants as the proposed Project. **Impact 3.3-2: LSM** (same as the Project) because this alternative would result in the generation of a similar amount of air pollutants as the proposed Project. **Impact 3.3-3: LSM** (same as the Project) because this alternative would continue to expose sensitive receptors near the proposed Grove terminal site to substantial pollutant concentrations. **Impact 3.3-4: LTS** (same as the Project) because this alternative would result in a similar level of sensitive receptor exposure to odors. **Impact C.3.3-1: LSM** (same as the Project) because this alternative would result in the generation of a similar amount of emissions that would contribute to the cumulative impact. **Impact C.3.3-2: LSM** (same as the Project) because this alternative would result in the generation of a similar amount of emissions that would contribute to the cumulative impact. **Impact C.3.3-3: LSM** (same as the Project) because this alternative's contribution to cumulative sensitive receptor exposure to pollutant concentrations would be similar to that of the Project. **Impact C.3.3-4: LTS** (same as the Project) because this alternative's contribution to cumulative sensitive receptor exposure to odors would be similar to that of the Project.	**Overall: Less than the Project** **Impact 3.3-1: LSM** (less than the Project) because this alternative would reduce the lengths of both the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV AC Transmission Line by approximately 1.2 miles, which would result in a decrease in the generation of short-term air pollutants. **Impact 3.3-2: LSM** (less than the Project) because this alternative would reduce the lengths of both the proposed transmission lines, which would result in a decrease in the generation of short-term air pollutants. **Impact 3.3-3: LSM for the proposed Skyline terminal site; LTS for the GTA-3** site (less than the Project). Because the nearest sensitive receptors are farther than 1,000 feet from the GTA-3 site, sensitive receptor exposure to pollutant concentrations would be substantially reduced compared to the Project. **Impact 3.3-4: LTS** (less than the Project) because this alternative would reduce sensitive receptor exposure to odors due to the location of the GTA-3 site and the reduced lengths of both the proposed transmission lines. **Impact C.3.3-1: LSM** (less than the Project) because this alternative would result in the generation of decreased emissions that would contribute to the cumulative impact. **Impact C.3.3-2: LSM** (less than the Project) because this alternative would result in the generation of decreased emissions that would contribute to the cumulative impact. **Impact C.3.3-3: LSM for the proposed Skyline terminal site; LTS for the GTA-3 site** (less than the Project) because this alternative's contribution to cumulative sensitive receptor exposure to pollutant concentrations would be substantially reduced compared to the Project. t. **Impact C.3.3-4: LSM** (less than the Project) because this alternative's contribution to cumulative sensitive receptor exposure to odors would be reduced due to the location of the GTA-3 site and the reduced lengths of both the proposed transmission lines.	**Overall: Same as the Project** **Impact 3.3-1: LSM** (same as the Project) because this alternative would result in the generation of a similar amount of air pollutants as the proposed Project. **Impact 3.3-2: LSM** (same as the Project) because this alternative would result in the generation of a similar amount of air pollutants as the proposed Project. **Impact 3.3-3: LSM** (same as the Project) because this alternative would continue to expose sensitive receptors near the proposed Grove terminal site to substantial pollutant concentrations. **Impact 3.3-4: LTS** (same as the Project) because this alternative would result in a similar level of sensitive receptor exposure to odors s. **Impact C.3.3-1: LSM** (same as the Project) because this alternative would result in the generation of a similar amount of emissions that would contribute to the cumulative impact. **Impact C.3.3-2: LSM** (same as the Project) because this alternative would result in the generation of a similar amount of emissions that would contribute to the cumulative impact. **Impact C.3.3-3: LSM** (same as the Project) because this alternative's contribution to cumulative sensitive receptor exposure to pollutant concentrations would be similar to that of the Project. **Impact C.3.3-4: LTS** (same as the Project) because this alternative's contribution to cumulative sensitive receptor exposure to odors would be similar to that of the Project.	**Overall: Less than the Project** **Impact 3.3-1: LSM** (less than the Project) because this alternative would reduce the lengths of both the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV AC Transmission Line by approximately 1.2 miles, which would result in a decrease in the generation of short-term air pollutants. **Impact 3.3-2: LSM** (less than the Project) because this alternative would reduce the lengths of both the proposed transmission lines, which would result in a decrease in the generation of short-term air pollutants. **Impact 3.3-3: LSM for the proposed Skyline terminal site; LTS for the GTA-3** site (less than the Project). Because the nearest sensitive receptors are farther than 1,000 feet from the GTA-3 site, sensitive receptor exposure to pollutant concentrations would be substantially reduced compared to the Project. **Impact 3.3-4: LTS** (less than the Project) because this alternative would reduce sensitive receptor exposure to odors due to the location of the GTA-3 site and the reduced lengths of both the proposed transmission lines. **Impact C.3.3-1: LSM** (less than the Project) because this alternative would result in the generation of decreased emissions that would contribute to the cumulative impact. **Impact C.3.3-2: LSM** (less than the Project) because this alternative would result in the generation of decreased emissions that would contribute to the cumulative impact. **Impact C.3.3-3: LSM for the proposed Skyline terminal site; LTS for the GTA-3 site** (less than the Project) because this alternative's contribution to cumulative sensitive receptor exposure to pollutant concentrations would be substantially reduced compared to the Project. **Impact C.3.3-4: LSM** (less than the Project) because this alternative's contribution to cumulative sensitive receptor exposure to odors would be reduced due to the location of the GTA-3 site and the reduced lengths of both the proposed transmission lines.

TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Biological Resources						
Impact 3.4-1: LSM. The Project would not 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 CDFW or USFWS. **Impact 3.4-2: LSM.** The Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS. **Impact 3.4-3: LTS.** The Project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. **Impact 3.4-4: LSM.** The Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. **Impact 3.4-5: LSM.** The Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **Impact 3.4-6: LTS.** The Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **Impact 3.4-7: LTS**. The Project would not create a substantial collision or electrocution risk for birds or bats. **Impact C.3.4-1: LSM.** The Project, in combination with the cumulative projects, would not 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 CDFW or USFWS. **Impact C.3.4-2: LSM.** The Project, in combination with the cumulative projects, would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.	**Overall: Less than the Project** **Criterion a:** No Impact (less than the Project) because no transmission project–related development would occur that could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. **Criterion b:** No Impact (less than the Project) because no transmission project–related development would occur that could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. **Criterion c:** No Impact (less than the Project) because no transmission project–related development would occur that could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. **Criterion d:** No Impact (less than the Project) because no transmission project–related development would occur that could 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. **Criterion e:** No Impact (less than the Project) because no transmission project–related development would occur that could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **Criterion f:** No Impact (less than the Project) because no transmission project–related development would occur that could conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	**Overall: Less than the Project** **Impact 3.4-1: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-2: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-3: LTS** (same as the Project) because this alternative would also not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. **Impact 3.4-4: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-5: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal next to the existing PG&E Metcalf Substation and would require significantly less tree removal. Therefore, this alternative would have short- and long-term reductions associated with this criterion.	**Overall: Same as the Project** **Impact 3.4-1: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-2: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-3: LTS** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-4: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-5: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-6: LTS** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-7: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar.	**Overall: Less than the Project** **Impact 3.4-1: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-2: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-3: LTS** (same as the Project) because this alternative would also not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. **Impact 3.4-4: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-5: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal next to the existing PG&E Metcalf Substation and would require significantly less tree removal. Therefore, this alternative would have short- and long-term reductions associated with this criterion.	**Overall: Same as the Project** **Impact 3.4-1: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-2: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-3: LTS** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-4: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-5: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-6: LTS** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar. **Impact 3.4-7: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential impacts associated with this criterion would be similar.	**Overall: Less than the Project** **Impact 3.4-1: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-2: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-3: LTS** (same as the Project) because this alternative would also not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. **Impact 3.4-4: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-5: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal next to the existing PG&E Metcalf Substation and would require significantly less tree removal. Therefore, this alternative would have short- and long-term reductions associated with this criterion.

TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Impact C.3.4-3: LTS. The Project, in combination with the cumulative projects, would not have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. **Impact C.3.4-4: LSM.** The Project, in combination with the cumulative projects, would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. **Impact C.3.4-5: LSM.** Project construction, in combination with the cumulative projects, would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **Impact C.3.4-6: LTS.** Project construction, in combination with the cumulative projects, would not conflict with the provisions of an adopted HCP, natural community conservation plan, or other approved local, regional, or State HCP. **Impact C.3.4-7: LTS**. The Project, in combination with the cumulative projects, would not create a substantial collision or electrocution risk for birds or bats.	**Criterion g:** No Impact (less than the Project) because no transmission project–related development would occur that could create a substantial collision or electrocution risk for birds or bats. **Cumulative -** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Impact 3.4-6: LTS** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-7: LTS** (same as the Project) because this alternative would not create a substantial collision or electrocution risk for birds or bats. **Impact C.3.4-1: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-2: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-3: LTS** (same as the Project) because this alternative would, in combination with the cumulative projects, would not have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. **Impact C.3.4-4: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would	**Impact C.3.4-1: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-2: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-3: LTS** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-4: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-5: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-6: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-7: LTS** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar.	**Impact 3.4-6: LTS** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-7: LTS** (same as the Project) because this alternative would not create a substantial collision or electrocution risk for birds or bats. **Impact C.3.4-1: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-2: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-3: LTS** (same as the Project) because this alternative would, in combination with the cumulative projects, would not have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. **Impact C.3.4-4: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would	**Impact C.3.4-1: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-2: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-3: LTS** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-4: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-5: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-6: LSM** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar. **Impact C.3.4-7: LTS** (same as the Project) because this alternative would place the northern end of the Grove to Skyline 320 kV Transmission in generally the same area as the proposed Project alignment; therefore, potential cumulative impacts associated with this criterion would be similar.	**Impact 3.4-6: LTS** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion. **Impact 3.4-7: LTS** (same as the Project) because this alternative would not create a substantial collision or electrocution risk for birds or bats. **Impact C.3.4-1: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-2: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-3: LTS** (same as the Project) because this alternative would, in combination with the cumulative projects, would not have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. **Impact C.3.4-4: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would

TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
		result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-5: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal next to the existing PG&E Metcalf Substation and would require significantly less tree removal. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-6: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-7: LTS** (same as the Project) because this alternative, in combination with the cumulative projects, would not create a substantial collision or electrocution risk for birds or bats.		result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-5: LSM**(less than the Project) because this alternative would place the Grove HVDC Terminal next to the existing PG&E Metcalf Substation and would require significantly less tree removal. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-6: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-7: LTS** (same as the Project) because this alternative, in combination with the cumulative projects, would not create a substantial collision or electrocution risk for birds or bats.		result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-5: LSM**(less than the Project) because this alternative would place the Grove HVDC Terminal next to the existing PG&E Metcalf Substation and would require significantly less tree removal. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-6: LSM** (less than the Project) because this alternative would place the Grove HVDC Terminal on a previously disturbed area, and on PG&E's property next to the existing PG&E Metcalf Substation. The reduction of the lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would result in less construction activity adjacent to Coyote Creek. Therefore, this alternative would have short- and long-term reductions associated with this criterion and, thus, less contributions to cumulative impacts. **Impact C.3.4-7: LTS** (same as the Project) because this alternative, in combination with the cumulative projects, would not create a substantial collision or electrocution risk for birds or bats.
Cultural Resources						
Impact 3.5-1: LSM. The Project would cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact 3.5-2: LSM.** The Project may disturb any human remains, including those interred outside of dedicated cemeteries. **Impact C.3.5-1: SU.** The Project would cause a cumulatively substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact C.3.5-2: LSM.** The Project would cumulatively disturb any human remains, including those interred outside of dedicated cemeteries.	**Overall: Less than the Project** **Impact 3.5-1:** No Impact (less than the Project) because no transmission project–related development would occur that could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact 3.5-2:** No Impact (less than the Project) because no transmission project–related development would occur that could disturb any human remains, including those interred outside of dedicated cemeteries. **Impact C.3.5-1:** No Impact (less than the Project) because no transmission project–related development would occur that could cause a cumulatively substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	**Overall: Same as the Project** **Impact 3.5-1: LSM** (same as the Project) because this alternative could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact 3.5-2: LSM** (same as the Project) because this alternative may disturb any human remains, including those interred outside of dedicated cemeteries. **Impact C.3.5-1: SU** (same as the Project) because this alternative could cause a cumulatively substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact C.3.5-2: LSM** (same as the Project) because this alternative could cumulatively disturb any human remains, including those interred outside of dedicated cemeteries.	**Overall: Same as the Project** **Impact 3.5-1: LSM** (same as the Project) because this alternative could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact 3.5-2: LSM** (same as the Project) because this alternative may disturb any human remains, including those interred outside of dedicated cemeteries. **Impact C.3.5-1: SU** (same as the Project) because this alternative could cause a cumulatively substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact C.3.5-2: LSM** (same as the Project) because this alternative could cumulatively disturb any human remains, including those interred outside of dedicated cemeteries.	**Overall: Same as the Project** **Impact 3.5-1: LSM** (same as the Project) because this alternative could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact 3.5-2: LSM** (same as the Project) because this alternative may disturb any human remains, including those interred outside of dedicated cemeteries. **Impact C.3.5-1: SU** (same as the Project) because this alternative could cause a cumulatively substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact C.3.5-2: LSM** (same as the Project) because this alternative could cumulatively disturb any human remains, including those interred outside of dedicated cemeteries.	**Overall: Same as the Project** **Impact 3.5-1: LSM** (same as the Project) because this alternative could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact 3.5-2: LSM** (same as the Project) because this alternative may disturb any human remains, including those interred outside of dedicated cemeteries. **Impact C.3.5-1: SU** (same as the Project) because this alternative could cause a cumulatively substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact C.3.5-2: LSM** (same as the Project) because this alternative could cumulatively disturb any human remains, including those interred outside of dedicated cemeteries.

TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
	Impact C.3.5-2: No Impact (less than the Project) because no transmission project–related development would occur that could cumulatively disturb any human remains, including those interred outside of dedicated cemeteries.					
Energy						
Impact 3.6-1: LTS. **The Project could result in wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of resources, during Project construction or operation**. **Criterion b:** No Impact. The Project would not conflict with or obstruct a local or state plan for renewable energy or energy efficiency. **Criterion c:** No Impact. The Project would not add capacity for the purpose of serving a nonrenewable energy resource. **Impact C.3.6-1: LTS.** The Project, in combination with the cumulative projects, could result in wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. **Cumulative - Criterion b:** No Impact. The Project would not contribute to cumulative impacts related to this criterion. **Cumulative - Criterion c:** No Impact. The Project would not contribute to cumulative impacts related to this criterion.	**Overall: Less than the Project** **Criterion a:** No Impact (less than the Project) because no transmission project–related development would occur that would result in wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of resources. **Criterion b:** No Impact (less than Project) because no transmission project-related development would occur that could conflict with or obstruct a local or state plan for renewable energy or energy efficiency. **Criterion c:** No Impact (less than Project) because no transmission project-related development would occur that could add capacity for the purpose of serving a nonrenewable energy resource. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Overall: Less than the Project** **Impact 3.6-1: LTS** (less than the Project) because this alternative would reduce the lengths of both the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV AC Transmission Line by approximately 1.2 miles, which would result in a decrease in construction fuel consumption. **Criterion b:** No Impact (same as the Project) because this alternative would not conflict with or obstruct a local or state plan for renewable energy or energy efficiency. **Criterion c:** No Impact (same as the Project) because this alternative would not add capacity for the purpose of serving a nonrenewable energy resource. **Impact C.3.6-1: LTS** (less than the Project) because this alternative would result in decreased fuel consumption that would contribute to the cumulative impact. **Cumulative - Criteria b and c:** No Impacts (same as the Project) because this alternative would not contribute to cumulative impacts related to these criteria.	**Overall: Same as the Project** **Impact 3.6-1: LTS** (same as the Project) because this alternative would result in a similar amount of construction fuel consumption as the proposed Project. **Criterion b:** No Impact (same as the Project) because this alternative would not conflict with or obstruct a local or state plan for renewable energy or energy efficiency. **Criterion c:** No Impact (same as the Project) because this alternative would not add capacity for the purpose of serving a nonrenewable energy resource. **Impact C.3.6-1: LTS** (same as the Project) because this alternative would result in similar fuel consumption that would contribute to the cumulative impact. **Cumulative - Criteria b and c:** No Impacts (same as the Project) because this alternative would not contribute to cumulative impacts related to these criteria.	**Overall: Less than the Project** **Impact 3.6-1: LTS** (less than the Project) because this alternative would reduce the lengths of both the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV AC Transmission Line by approximately 1.2 miles, which would result in a decrease in construction fuel consumption. **Criterion b:** No Impact (same as the Project) because this alternative would not conflict with or obstruct a local or state plan for renewable energy or energy efficiency. **Criterion c:** No Impact (same as the Project) because this alternative would not add capacity for the purpose of serving a nonrenewable energy resource. **Impact C.3.6-1: LTS** (less than the Project) because this alternative would result in decreased fuel consumption that would contribute to the cumulative impact. **Cumulative - Criteria b and c:** No Impacts (same as the Project) because this alternative would not contribute to cumulative impacts related to these criteria.	**Overall: Same as the Project** **Impact 3.6-1: LTS** (same as the Project) because this alternative would result in a similar amount of construction fuel consumption as the proposed Project. **Criterion b:** No Impact (same as the Project) because this alternative would not conflict with or obstruct a local or state plan for renewable energy or energy efficiency. **Criterion c:** No Impact (same as the Project) because this alternative would not add capacity for the purpose of serving a nonrenewable energy resource. **Impact C.3.6-1: LTS** (same as the Project) because this alternative would result in similar fuel consumption that would contribute to the cumulative impact. **Cumulative - Criteria b and c:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to these criteria.	**Overall: Less than the Project** **Impact 3.6-1: LTS** (less than the Project) because this alternative would reduce the lengths of both the proposed Grove to Skyline 320 kV Transmission Line and proposed Metcalf to Grove 500 kV AC Transmission Line by approximately 1.2 miles, which would result in a decrease in construction fuel consumption. **Criterion b:** No Impact (same as the Project) because this alternative would not conflict with or obstruct a local or state plan for renewable energy or energy efficiency. **Criterion c:** No Impact (same as the Project) because this alternative would not add capacity for the purpose of serving a nonrenewable energy resource. **Impact C.3.6-1: LTS** (less than the Project) because this alternative would result in decreased fuel consumption that would contribute to the cumulative impact. **Cumulative - Criteria b and c:** No Impacts (same as the Project) because this alternative would not contribute to cumulative impacts related to these criteria.
Geology, Soils, and Paleontological Resources						
Impact 3.7-1a: LTS. The Project would not cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. **Impact 3.7-1b: LTS.** The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. **Impact 3.7-1c: LTS.** The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	**Overall: Less than the Project** **Criterion a.i:** No Impact (less than the Project) because no transmission project–related development would occur that could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. **Criterion a.ii:** No Impact (less than the Project) because no transmission project–related development would occur that could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	**Overall: Less than the Project** **Impact 3.7-1a: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by the rupture of a known earthquake fault. **Impact 3.7-1b: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by strong ground shaking.	**Overall: Same as the Project** **Impact 3.7-1a: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by the rupture of a known earthquake fault. **Impact 3.7-1b: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by strong ground shaking.	**Overall: Less than the Project** **Impact 3.7-1a: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by the rupture of a known earthquake fault. **Impact 3.7-1b: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by strong ground shaking.	**Overall: Same as the Project** **Impact 3.7-1a: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by the rupture of a known earthquake fault. **Impact 3.7-1b: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by strong ground shaking.	**Overall: Less than the Project** **Impact 3.7-1a: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by the rupture of a known earthquake fault. **Impact 3.7-1b: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by strong ground shaking.

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SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Impact 3.7-1d: LTS. The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. **Impact 3.7-2: LTS.** Project construction would not result in substantial soil erosion or the loss of topsoil. **Impact 3.7-3: LTS.** The Project would not 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 3.7-4: LTS.** The Project would not be located on expansive soil creating substantial direct or indirect risks to life or property. **Criterion e:** No Impact. The Project would not 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. **Impact 3.7-5: LTS.** Project construction would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. **Impact C.3.7-1a**: **LTS.** The Project, in combination with the cumulative projects, would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. **Impact C.3.7-1b: LTS.** The Project, in combination with the cumulative projects, would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. **Impact C.3.7-1c: LTS.** The Project, in combination with the cumulative projects, would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. **Impact C.3.7-1d: LTS.** The Project, in combination with the cumulative projects, would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.	**Criterion a.iii:** No Impact (less than the Project) because no transmission project–related development would occur that could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. **Criterion b:** No Impact (less than the Project) because no transmission project–related development would occur that could result in substantial soil erosion or the loss of topsoil. **Criterion c:** No Impact (less than the Project) because no transmission project–related development would occur that could 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. **Criterion d:** No Impact (less than the Project) because no transmission project–related development would occur that could be located on expansive soil creating substantial direct or indirect risks to life or property. **Criterion e:** No Impact (less than the Project) because no transmission project–related development would occur that could 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. **Criterion f:** No Impact (less than the Project) because no transmission project–related development would occur that could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Impact 3.7-1c: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by seismic-related ground failure. **Impact 3.7-1d: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by landslides. **Impact 3.7-2: LTS** (less than the Project) because this alternative would require less ground disturbance as the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would be shorter by approximately 1.2 miles. Therefore, this alternative would result in decreased short-term impacts related to this criterion. **Impact 3.7-3: LTS** (less than the Project) because this alternative would require less ground disturbance. Therefore, this alternative would result in less excavation that could lead to soil instability. **Impact 3.7-4: LTS** (less than the Project) because this alternative would require less ground disturbance. Therefore, this alternative would result in decreased risks associated with expansive soil. **Criterion e:** No Impact (same as the Project) because this alternative would not include the use of septic tanks or alternative wastewater disposal systems. **Impact 3.7-5: LTS** (less than the Project) because this alternative would require less ground disturbance that could inadvertently destroy paleontological resources or unique geologic features. **Impact C.3.7-1a: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by the rupture of a known earthquake fault that could contribute to a cumulative impact. **Impact C.3.7-1b: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by strong ground shaking that could contribute to a cumulative impact.	**Impact 3.7-1c: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by seismic-related ground failure. **Impact 3.7-1d: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by landslides. **Impact 3.7-2: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance as the Project. **Impact 3.7-3: LTS** (same as the Project) because this alternative would involve a similar amount of excavation that could result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. **Impact 3.7-4: LTS** (same as the Project) because this alternative would involve a similar amount of excavation as the Project that could lead to risks associated with expansive soil. **Criterion e:** No Impact (same as the Project) because this alternative would not include the use of septic tanks or alternative wastewater disposal systems. **Impact 3.7-5: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance that could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. **Impact C.3.7-1a: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by the rupture of a known earthquake fault that could contribute to a cumulative impact. **Impact C.3.7-1b: LTS** (same as the Project) because this alternative would result in approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by strong ground shaking that could contribute to a cumulative impact. **Impact C.3.7-1c: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse	**Impact 3.7-1c: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by seismic-related ground failure. **Impact 3.7-1d: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by landslides. **Impact 3.7-2: LTS** (less than the Project) because this alternative would require less ground disturbance as the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would be shorter by approximately 1.2 miles. Therefore, this alternative would result in decreased short-term impacts related to this criterion. **Impact 3.7-3: LTS** (less than the Project) because this alternative would require less ground disturbance. Therefore, this alternative would result in less excavation that could lead to soil instability. **Impact 3.7-4: LTS** (less than the Project) because this alternative would require less ground disturbance. Therefore, this alternative would result in decreased risks associated with expansive soil. **Criterion e:** No Impact (same as the Project) because this alternative would not include the use of septic tanks or alternative wastewater disposal systems. **Impact 3.7-5: LTS** (less than the Project) because this alternative would require less ground disturbance that could inadvertently destroy paleontological resources or unique geologic features. **Impact C.3.7-1a: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by the rupture of a known earthquake fault that could contribute to a cumulative impact. **Impact C.3.7-1b: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by strong ground shaking that could contribute to a cumulative impact.	**Impact 3.7-1c: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by seismic-related ground failure. **Impact 3.7-1d: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by landslides. **Impact 3.7-2: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance as the Project. **Impact 3.7-3: LTS** (same as the Project) because this alternative would involve a similar amount of excavation that could result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. **Impact 3.7-4: LTS** (same as the Project) because this alternative would involve a similar amount of excavation as the Project that could lead to risks associated with expansive soil. **Criterion e:** No Impact (same as the Project) because this alternative would not include the use of septic tanks or alternative wastewater disposal systems. **Impact 3.7-5: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance that could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. **Impact C.3.7-1a: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by the rupture of a known earthquake fault that could contribute to a cumulative impact. **Impact C.3.7-1b: LTS** (same as the Project) because this alternative would result in approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by strong ground shaking that could contribute to a cumulative impact. **Impact C.3.7-1c: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse	**Impact 3.7-1c: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by seismic-related ground failure. **Impact 3.7-1d: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by landslides. **Impact 3.7-2: LTS** (less than the Project) because this alternative would require less ground disturbance as the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line would be shorter by approximately 1.2 miles. Therefore, this alternative would result in decreased short-term impacts related to this criterion. **Impact 3.7-3: LTS** (less than the Project) because this alternative would require less ground disturbance. Therefore, this alternative would result in less excavation that could lead to soil instability. **Impact 3.7-4: LTS** (less than the Project) because this alternative would require less ground disturbance. Therefore, this alternative would result in decreased risks associated with expansive soil. **Criterion e:** No Impact (same as the Project) because this alternative would not include the use of septic tanks or alternative wastewater disposal systems. **Impact 3.7-5: LTS** (less than the Project) because this alternative would require less ground disturbance that could inadvertently destroy paleontological resources or unique geologic features. **Impact C.3.7-1a: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by the rupture of a known earthquake fault that could contribute to a cumulative impact. **Impact C.3.7-1b: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by strong ground shaking that could contribute to a cumulative impact.

TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Impact C.3.7-2: LTS. Project construction, in combination with the cumulative projects, would not result in substantial soil erosion or the loss of topsoil. **Impact C.3.7-3: LTS.** The Project, in combination with the cumulative projects, would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the projects, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. **Impact C.3.7-4: LTS.** The Project, in combination with the cumulative projects, would not be located on expansive soil creating cumulatively substantial direct or indirect risks to life or property. **Cumulative – Criterion e:** No Impact. The Project would not contribute to cumulative impacts related to this criterion. **Impact C.3.7-5: LTS.** Project construction, in combination with the cumulative projects, would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.		**Impact C.3.7-1c: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by seismic-related ground failure that could contribute to a cumulative impact. **Impact C.3.7-1d: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by landslides that could contribute to a cumulative impact. **Impact C.3.7-2: LTS** (less than the Project) because this alternative would require less ground disturbance that would contribute to a cumulative impact. **Impact C.3.7-3: LTS** (less than the Project) because this alternative would require less ground disturbance that could lead to soil instability and contribute to a cumulative impact. **Impact C.3.7-4: LTS** (less than the Project) because this alternative would require less ground disturbance that would contribute to cumulative risks associated with expansive soil. **Cumulative - Criterion e:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Impact C.3.7-5: LTS** (less than the Project) because this alternative would require less ground disturbance that could contribute to a cumulative impact related to the destruction of a unique paleontological resource or unique geologic feature.	effects caused by seismic-related ground failure that could contribute to a cumulative impact. **Impact C.3.7-1d: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by landslides that could contribute to a cumulative impact. **Impact C.3.7-2: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance as the Project that would contribute to a cumulative impact. **Impact C.3.7-3: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance as the Project that could lead to soil instability and contribute to a cumulative impact. **Impact C.3.7-4: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance that would contribute to cumulative risks associated with expansive soil. **Cumulative - Criterion e:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Impact C.3.7-5: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance as the Project that could contribute to a cumulative impact related to the destruction of a unique paleontological resource or unique geologic feature.	**Impact C.3.7-1c: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by seismic-related ground failure that could contribute to a cumulative impact. **Impact C.3.7-1d: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by landslides that could contribute to a cumulative impact. **Impact C.3.7-2: LTS** (less than the Project) because this alternative would require less ground disturbance that would contribute to a cumulative impact. **Impact C.3.7-3: LTS** (less than the Project) because this alternative would require less ground disturbance that could lead to soil instability and contribute to a cumulative impact. **Impact C.3.7-4: LTS** (less than the Project) because this alternative would require less ground disturbance that would contribute to cumulative risks associated with expansive soil. **Cumulative - Criterion e:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Impact C.3.7-5: LTS** (less than the Project) because this alternative would require less ground disturbance that could contribute to a cumulative impact related to the destruction of a unique paleontological resource or unique geologic feature.	effects caused by seismic-related ground failure that could contribute to a cumulative impact. **Impact C.3.7-1d: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by landslides that could contribute to a cumulative impact. **Impact C.3.7-2: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance as the Project that would contribute to a cumulative impact. **Impact C.3.7-3: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance as the Project that could lead to soil instability and contribute to a cumulative impact. **Impact C.3.7-4: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance that would contribute to cumulative risks associated with expansive soil. **Cumulative - Criterion e:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Impact C.3.7-5: LTS** (same as the Project) because this alternative would result in a similar amount of ground disturbance as the Project that could contribute to a cumulative impact related to the destruction of a unique paleontological resource or unique geologic feature.	**Impact C.3.7-1c: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by seismic-related ground failure that could contribute to a cumulative impact. **Impact C.3.7-1d: LTS** (same as the Project) because this alternative would require approximately the same amount of above ground facilities as the Project that would be most susceptible to adverse effects caused by landslides that could contribute to a cumulative impact. **Impact C.3.7-2: LTS** (less than the Project) because this alternative would require less ground disturbance that would contribute to a cumulative impact. **Impact C.3.7-3: LTS** (less than the Project) because this alternative would require less ground disturbance that could lead to soil instability and contribute to a cumulative impact. **Impact C.3.7-4: LTS** (less than the Project) because this alternative would require less ground disturbance that would contribute to cumulative risks associated with expansive soil. **Cumulative - Criterion e:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Impact C.3.7-5: LTS** (less than the Project) because this alternative would require less ground disturbance that could contribute to a cumulative impact related to the destruction of a unique paleontological resource or unique geologic feature.
Greenhouse Gas Emissions						
Impact 3.8-1: LTS. The Project would generate greenhouse gas emissions. **Impact 3.8-2: LTS.** The Project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. **Impact C.3.8-1: LTS.** The Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a cumulatively significant impact on the environment. **Impact C.3.8-2: LTS.** The Project would not cumulatively conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	**Overall: Less than the Project** **Criterion a:** No Impact (less than the Project) because no transmission project–related development would occur that could generate greenhouse gas emissions. **Criterion b:** No Impact (less than the Project) because no transmission project–related development would occur that could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Overall: Less than the Project** **Impact 3.8-1: LTS** (less than the Project) because under this alternative the transmission lines would be shorter and associated construction activities would generate less greenhouse gas emissions. **Impact 3.8-2: LTS** (less than the Project) because under this alternative the transmission lines would be shorter and associated construction activities would generate less greenhouse gas emissions. **Impact C.3.8-1: LTS** (less than the Project) because under this alternative the transmission lines would be shorter and associated construction activities would contribute less greenhouse gas emissions to the cumulative impact.	**Overall: Same as the Project** **Impact 3.8-1: LTS** (same as the Project) because under this alternative construction activities would generate a similar amount of greenhouse gas emissions. **Impact 3.8-2: LTS** (same as the Project) because under this alternative construction activities would generate a similar amount of greenhouse gas emissions. **Impact C.3.8-1: LTS** (same as the Project) because under this alternative construction activities would contribute a similar amount of greenhouse gas emissions to the cumulative impact.	**Overall: Less than the Project** **Impact 3.8-1: LTS** (less than the Project) because under this alternative, the transmission lines would be shorter and associated construction activities would generate less greenhouse gas emissions. **Impact 3.8-2: LTS** (less than the Project) because under this alternative the transmission lines would be shorter and associated construction activities would generate less greenhouse gas emissions. **Impact C.3.8-1: LTS** (less than the Project) because under this alternative the transmission lines would be shorter and associated construction activities would contribute less greenhouse gas emissions to the cumulative impact.	**Overall: Same as the Project** **Impact 3.8-1: LTS** (same as the Project) because under this alternative construction activities would generate a similar amount of greenhouse gas emissions. **Impact 3.8-2: LTS** (same as the Project) because under this alternative construction activities would generate a similar amount of greenhouse gas emissions. **Impact C.3.8-1: LTS** (same as the Project) because under this alternative construction activities would contribute a similar amount of greenhouse gas emissions to the cumulative impact.	**Overall: Less than the Project** **Impact 3.8-1: LTS** (less than the Project) because under this alternative the transmission lines would be shorter and associated construction activities would generate less greenhouse gas emissions. **Impact 3.8-2: LTS** (less than the Project) because under this alternative the transmission lines would be shorter and associated construction activities would generate less greenhouse gas emissions. **Impact C.3.8-1: LTS** (less than the Project) because under this alternative the transmission lines would be shorter and associated construction activities would contribute less greenhouse gas emissions to the cumulative impact.

TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
		Impact C.3.8-2: LTS (less than the Project) because under this alternative the transmission lines would be shorter and associated construction activities would contribute less greenhouse gas emissions to the cumulative impact.	**Impact C.3.8-2: LTS** (same as the Project) because under this alternative construction activities would contribute a similar amount of greenhouse gas emissions to the cumulative impact.	**Impact C.3.8-2: LTS** (less than the Project) because under this alternative the transmission lines would be shorter and associated construction activities would contribute less greenhouse gas emissions to the cumulative impact.	**Impact C.3.8-2: LTS** (same as the Project) because under this alternative construction activities would contribute a similar amount of greenhouse gas emissions to the cumulative impact.	**Impact C.3.8-2: LTS** (less than the Project) because under this alternative the transmission lines would be shorter and associated construction activities would contribute less greenhouse gas emissions to the cumulative impact.
Hazards and Hazardous Materials						
Impact 3.9-1: LTS. The Project would involve the routine transport, use, and disposal of hazardous materials that could result in an accidental release of hazardous materials into the environment. **Impact 3.9-2: LTS.** The Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. **Impact 3.9-3: LTS.** The Project would 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. **Impact 3.9-4: LTS.** The Project would not result in a safety hazard or excessive noise for people residing or working in the Project area due to it being 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. **Impact 3.9-5: LTS.** The Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **Impact 3.9-6: LTS.** The Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. **Criterion h:** No Impact. Project would not create a significant hazard to air traffic from the installation of new power lines and structure. **Criterion i:** No Impact. The Project would not create a significant hazard to the public or environment through the transport of heavy materials using helicopters. **Criterion j:** No Impact. The Project would not expose people to a significant risk of injury or death involving unexploded ordnances.	**Overall: Less than the Project** **Impact 3.9-1:** No Impact (less than the Project) because no transmission project–related development would occur that could involve the routine transport, use, and disposal of hazardous materials that could result in an accidental release of hazardous materials into the environment. **Impact 3.9-2:** No Impact (less than the Project) because no transmission project–related development would occur that could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. **Impact 3.9-3:** No Impact (less than the Project) because no transmission project–related development would occur that could 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. **Impact 3.9-4:** No Impact (less than the Project) because no transmission project–related development would occur that could result in a safety hazard or excessive noise for people residing or working in the Project area due to it being 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. **Impact 3.9-5:** No Impact (less than the Project) because no transmission project–related development would occur that could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **Impact 3.9-6:** No Impact (less than the Project) because no transmission project–related development would occur that could expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	**Overall: Less than the Project** **Impact 3.9-1: LTS** (same as the Project) as this alternative could also involve the routine transport, use, and disposal of hazardous materials that could result in an accidental release of hazardous materials into the environment. **Impact 3.9-2: LTS** (same as the Project) as this alternative could also emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. **Impact 3.9-3: LTS** (same as the Project) as this alternative could also 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. **Impact 3.9-4: LTS** (less than the Project) as this alternative would place the Grove Terminal farther away from people residing or working the Project area. Also, this alternative would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line, which would reduce construction-related safety hazards and excessive noise. **Impact 3.9-5: LTS** (same as the Project) as this alternative could also impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **Impact 3.9-6: LTS** (less than the Project) because the GTA-3 site does not contain fuel for potential wildfires, therefore, there would be a risk reduction associated with wildland fires under this alternative. **Criterion h:** No Impact (same as the Project) as this alternative would not create a significant hazard to air traffic from the installation of new power lines and structure.	**Overall: Same as the Project** **Impact 3.9-1: LTS** (same as the Project) as this alternative could also involve the routine transport, use, and disposal of hazardous materials that could result in an accidental release of hazardous materials into the environment. **Impact 3.9-2: LTS** (same as the Project) as this alternative could also emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. **Impact 3.9-3: LTS** (same as the Project) as this alternative could also 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. **Impact 3.9-4: LTS** (same as the Project) as this alternative would not result in a safety hazard or excessive noise for people residing or working in the Project area due to it being 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. **Impact 3.9-5: LTS** (same as the Project) as this alternative could also impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **Impact 3.9-6: LTS** (same than the Project) as this alternative would not directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. **Criterion h:** No Impact (same as the Project) as this alternative would not create a significant hazard to air traffic from the installation of new power lines and structure. **Criterion i:** No Impact (same as the Project) as this alternative would not create a significant hazard to the public or environment through the transport of heavy materials using helicopters.	**Overall: Less than the Project** **Impact 3.9-1: LTS** (same as the Project) as this alternative could also involve the routine transport, use, and disposal of hazardous materials that could result in an accidental release of hazardous materials into the environment. **Impact 3.9-2: LTS** (same as the Project) as this alternative could also emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. **Impact 3.9-3: LTS** (same as the Project) as this alternative could also 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. **Impact 3.9-4: LTS** (less than the Project) as this alternative would place the Grove Terminal farther away from people residing or working the Project area. 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TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Impact 3.9-7: LTS. The Project would not expose workers or the public to excessive shock hazards. **Impact C.3.9-1: LTS.** The Project would not create a cumulatively significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials. **Impact C.3.9-2: LTS.** The Project would not cause a cumulatively considerable impact resulting from the handling of or emission of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. **Impact C.3.9-3: LTS.** The Project would not create a cumulatively considerable hazard to the public or the environment due to its location on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. **Impact C.3.9-4: LTS.** The Project would not result in a cumulatively considerable safety hazard or excessive noise for people residing or working in the Project area due to its being located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would not create a significant hazard to air traffic from the installation of new power lines and structures. **Impact C.3.9-5: LTS.** The Project's cumulative impacts, when combined with impacts of other projects, would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **Impact C.3.9-6: LTS.** The Project would not contribute to a cumulatively considerable risk of exposure of people or structures, either directly or indirectly, or to a significant risk of loss, injury, or death involving wildland fires. **Cumulative - Criterion h:** No Impact. The Project would not contribute to cumulative impacts related to this criterion. **Cumulative - Criterion i:** No Impact. The Project would not contribute to cumulative impacts related to this criterion.	**Criterion h:** No Impact (same as the Project) since this alternative would not create a significant hazard to air traffic from the installation of new power lines and structure. **Criterion i:** No Impact (same as the Project) since this alternative would not create a significant hazard to the public or environment through the transport of heavy materials using helicopters. **Criterion j:** No Impact (same as the Project) since this alternative would not expose people to a significant risk of injury or death involving unexploded ordnances. **Impact 3.9-7:** No Impact (less than the Project) because no transmission project–related development would occur that could expose workers or the public to excessive shock hazards. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Criterion i:** No Impact (same as the Project) as this alternative would not create a significant hazard to the public or environment through the transport of heavy materials using helicopters. **Criterion j:** No Impact (same as the Project) as this alternative would not expose people to a significant risk of injury or death involving unexploded ordnances. **Impact 3.9-7: LTS** (same as the Project) as this alternative would not expose workers or the public to excessive shock hazards. **Impact C.3.9-1: LTS** (same as the Project) as this alternative, in combination with the cumulative projects, could involve the routine transport, use, and disposal of hazardous materials that could result in an accidental release of hazardous materials into the environment. **Impact C.3.9-2: LTS** (same as the Project) as this alternative, in combination with the cumulative projects, could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile **Impact C.3.9-3: LTS** (same as the Project) as this alternative, in combination with the cumulative projects, could 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. **Impact C.3.9-4: LTS** (less than the Project) as this alternative would place the Grove Terminal farther away from people residing or working the Project area. 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TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Cumulative - Criterion j: No Impact. The Project would not contribute to cumulative impacts related to this criterion. **Impact C.3.9-7: LTS.** The Project would not expose workers or the public to cumulatively considerable shock hazards.		**Cumulative - Criterion h:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Cumulative - Criterion i:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Cumulative - Criterion j:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Impact C.3.9-7: LTS** (same as the Project) as this alternative, in combination with the cumulative projects, would not expose workers or the public to excessive shock hazards.	**Cumulative - Criterion i:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Cumulative - Criterion j:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Impact C.3.9-7: LTS** (same as the Project) as this alternative, in combination with the cumulative projects, would not expose workers or the public to excessive shock hazards.	**Cumulative - Criterion h:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Cumulative - Criterion i:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Cumulative - Criterion j:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Impact C.3.9-7: LTS** (same as the Project) as this alternative, in combination with the cumulative projects, would not expose workers or the public to excessive shock hazards.	cumulative impacts related to this criterion. **Cumulative - Criterion i:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Cumulative - Criterion j:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Impact C.3.9-7: LTS** (same as the Project) as this alternative, in combination with the cumulative projects, would not expose workers or the public to excessive shock hazards.	**Cumulative - Criterion h:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Cumulative - Criterion i:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Cumulative - Criterion j:** No Impact (same as the Project) because this alternative would not contribute to cumulative impacts related to this criterion. **Impact C.3.9-7: LTS** (same as the Project) as this alternative, in combination with the cumulative projects, would not expose workers or the public to excessive shock hazards.
Hydrology and Water Quality						
Impact 3.10-1: LTS. The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. **Impact 3.10-2: LTS.** The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. **Impact 3.10-3: LTS.** The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site. **Impact 3.10-4: LTS.** The Project would create or contribute runoff water which could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. **Impact 3.10-5: LTS.** The Project would be partially located in a flood hazard zone and risk the release of pollutants due to Project inundation. **Impact 3.10-6: LTS.** The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	**Overall: Less than the Project** **Impact 3.10-1:** No Impact (less than the Project) because no transmission project–related development would occur that could violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. **Impact 3.10-2:** No Impact (less than the Project) because no transmission project–related development would occur that could substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. **Impact 3.10-3:** No Impact (less than the Project) because no transmission project–related development would occur that could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site. **Impact 3.10-4:** No Impact (less than the Project) because no transmission project–related development would occur that could create or contribute runoff water which could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	**Overall: Less than the Project** **Impact 3.10-1: LTS** (same as the Project) as this alternative would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. **Impact 3.10-2: LTS** (same as the Project) as this alternative would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. **Impact 3.10-3: LTS** (less than the Project) as this alternative would place the Grove Terminal on a previously disturbed property, which would result in decreased impacts related to this criterion. 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Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Impact C.3.10-1: LTS. The Project's impacts associated with violation of water quality standards, waste discharge requirements, or other Project degradation of surface or ground water quality would not be cumulatively considerable. **Impact C.3.10-2: LTS.** The Project's impact associated with decreased groundwater supplies or interference with groundwater recharge would not be cumulatively considerable. **Impact C.3.10-3: LTS.** The Project, in combination with the cumulative projects, would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river nor through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site. **Impact C.3.10-4: LTS.** The Project, in combination with the cumulative projects, would create or contribute runoff water which could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. **Impact C.3.10-5: LTS.** The Project, in combination with the cumulative projects, would partially be located in flood hazard zone, and could risk release of pollutants due to inundation. **Impact C.3.10-6: LTS.** The Project, in combination with the cumulative projects, would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan.	**Impact 3.10-5:** No Impact (less than the Project) because no transmission project–related development would occur that would partially be located in a flood hazard zone and risk the release of pollutants due to Project inundation. **Impact 3.10-6:** No Impact (less than the Project) because no transmission project–related development would occur that could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Impact 3.10-5: LTS** (same as the Project) as this alternative would also be partially located in a flood hazard zone and risk the release of pollutants due to Project inundation. **Impact 3.10-6: LTS** (same as the Project) as this alternative would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. **Impact C.3.10-1: LTS** (same as the Project) as this alternative, in combination with the cumulative projects, would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. **Impact C.3.10-2: LTS** (same as the Project) as this alternative, in combination with the cumulative projects, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. **Impact C.3.10-3: LTS** (less than the Project) as this alternative would place the Grove HVDC Terminal on a previously disturbed property, which would result in decreased cumulative impacts related to this criterion. Further, this alternative would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line, which would result in further reduced cumulative impacts. **Impact C.3.10-4: LTS** (less than the Project) as this alternative would place the Grove Terminal on a previously disturbed property, which would result in decreased cumulative impacts related to this criterion. 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TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Land Use and Planning						
Criterion a: No Impact. The Project would not physically divide an established community. **Criterion b:** No Impact. No local and use plans, policies, or regulations requiring discretionary approval would apply to the Project, therefore, the Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **Cumulative – Criterion a:** No Impact. The Project would not contribute to any cumulative impacts related to this criterion. **Cumulative – Criterion b:** No Impact. The Project would not contribute to any cumulative impacts related to this criterion.	**Overall: Less than the Project** **Criterion a:** No Impact (less than the Project) because no transmission project–related development would occur that could physically divide an established community. **Criterion b:** No Impact (less than the Project) because no transmission project–related development would occur that could cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Overall: Same as the Project** **Criterion a:** No Impact (same as the Project) because this alternative would not physically divide an established community. **Criterion b:** No Impact (same as the Project) because this alternative would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **Cumulative – Criterion a:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.	**Overall: Same as the Project** **Criterion a:** No Impact (same as the Project) because this alternative would not physically divide an established community. **Criterion b:** No Impact (same as the Project) because this alternative would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **Cumulative – Criterion a:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.	**Overall: Same as the Project** **Criterion a:** No Impact (same as the Project) because this alternative would not physically divide an established community. **Criterion b:** No Impact (same as the Project) because this alternative would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **Cumulative – Criterion a:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.	**Overall: Same as the Project** **Criterion a:** No Impact (same as the Project) because this alternative would not physically divide an established community. **Criterion b:** No Impact (same as the Project) because this alternative would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **Cumulative – Criterion a:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.
Mineral Resources						
Impact 3.12-1: LTS. The Project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **Impact 3.12-2: LTS.** The Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. **Cumulative - Criterion a:** No Impact. The Project, in combination with the cumulative projects, would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **Cumulative - Criterion b:** No Impact. The Project, in combination with the cumulative projects, would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	**Overall: Less than the Project** **Impact 3.12-1:** No Impact (less than the Project) because no transmission project–related development would occur that could result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **Impact 3.12-2:** No Impact (less than the Project) because no transmission project–related development would occur that could 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. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Overall: Same as the Project** **Impact 3.12-1: LTS** (same as the Project) because this alternative could also result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **Impact 3.12-2: LTS** (same as the Project) because alternative could also 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. **Cumulative - Criterion a:** No Impact (same as the Project) because this alternative, in combination with the cumulative projects, would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **Cumulative - Criterion b:** No Impact (same as the Project), in combination with the cumulative projects, would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	**Overall: Same as the Project** **Impact 3.12-1: LTS** (same as the Project) because this alternative could also result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **Impact 3.12-2: LTS** (same as the Project) because alternative could also 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. **Cumulative - Criterion a:** No Impact (same as the Project) because this alternative, in combination with the cumulative projects, would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **Cumulative - Criterion b:** No Impact (same as the Project), in combination with the cumulative projects, would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	**Overall: Same as the Project** **Impact 3.12-1: LTS** (same as the Project) because this alternative could also result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **Impact 3.12-2: LTS** (same as the Project) because alternative could also 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. **Cumulative - 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Criterion a:** No Impact (same as the Project) because this alternative, in combination with the cumulative projects, would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **Cumulative - Criterion b:** No Impact (same as the Project), in combination with the cumulative projects, would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Noise and Acoustics						
Impact 3.13-1: LSM. Project construction would generate a substantial temporary increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. **Impact 3.13-2: LSM.** Project operation would generate a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. **Impact 3.13-3: LTS.** Project construction would generate excessive groundborne vibration noise levels. **Impact 3.13-4: LTS.** Project operation would generate groundborne vibration noise levels. **Impact 3.13-5: LTS.** The Project could expose people working in the Project area to excessive airport noise levels. **Impact C.3.13-1: LSM.** The Project's construction-related impact of generating a substantial temporary increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance would be cumulatively considerable. **Impact C.3.13-2: LTS.** The Project's operational impact of generating a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance would not be cumulatively considerable. **Impact C.3.13-3: LTS.** The Project's construction and operation groundborne vibration impacts would not be cumulatively considerable. **Impact C.3.13-4: LTS.** The Project's impact of exposing people working in the Project area to excessive airport noise levels would not be cumulatively considerable.	**Overall: Less than the Project** **Impact 3.13-1:** No Impact (less than the Project) because no transmission project–related development would occur that could generate a substantial temporary increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. **Impact 3.13-2:** No Impact (less than the Project) because no transmission project-related development would occur that could generate a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. **Impact 3.13-3:** No Impact (less than the Project) because no transmission project–related development would occur that could generate excessive groundborne vibration or groundborne noise levels during construction. **Impact 3.13-4:** No Impact (less than the Project) because no transmission project–related development would occur that could generate groundborne vibration noise levels during operation. **Impact 3.13-5:** No Impact (less than the Project) because no transmission project–related development would occur that could expose people working in the Project area to excessive airport noise levels. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Overall: Less than the Project** **Impact 3.13-1: LSM** (less than the Project) because this alternative would locate the Grove Terminal farther away from sensitive receptors, and since the lengths of the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line are shorter, there would be a reduction in construction noise. This alternative would result in a decrease in short- and long-term impacts related to this criterion. **Impact 3.13-2: LTS** (less than the Project) because this alternative would locate the Grove Terminal farther away from sensitive receptors, therefore, this alternative would result in a decrease in operational impacts. **Impact 3.13-3: LTS** (less than the Project) because this alternative would locate the Grove Terminal farther away from sensitive receptors, and since the lengths of the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line are shorter, there would be a reduction in construction noise. 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This alternative would result in a decrease in short- and long-term cumulative impacts related to this criterion. **Impact C.3.13-2: LTS** (less than the Project) because this alternative would locate the Grove Terminal farther away from sensitive receptors, therefore, this alternative would result in a decrease in operational cumulative impacts.	**Overall: Same as the Project** **Impact 3.13-1: LSM** (same as the Project) because construction of this alternative would generate a substantial temporary increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. **Impact 3.13-2: LSM** (same as the Project) because operation of this alternative would generate a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. **Impact 3.13-3: LTS** (same as the Project) because construction of this alternative would generate excessive groundborne vibration noise levels. **Impact 3.13-4: LTS** (same as the Project) because operation of this alternative would generate excessive groundborne vibration noise levels. **Impact 3.13-5: LTS** (same as the Project) because this alternative could expose people working in the Project area to excessive airport noise levels. **Impact C.3.13-1: LSM** (same as the Project) because the alternative's construction-related impact of generating a substantial temporary increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance would be cumulatively considerable. **Impact C.3.13-2: LTS** (same as the Project) because this alternative's operational impact of generating a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance would not be cumulatively considerable. **Impact C.3.13-3: LTS** (same as the Project) because this alternative's construction and operation groundborne vibration impacts would not be cumulatively considerable. **Impact C.3.13-4: LTS** (same as the Project) because this alternative's impact of exposing people working in the Project area to excessive airport noise levels would not be cumulatively considerable.	**Overall: Less than the Project** **Impact 3.13-1: LSM** (less than the Project) because this alternative would locate the Grove Terminal farther away from sensitive receptors, and since the lengths of the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line are shorter, there would be a reduction in construction noise. 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This alternative would result in a decrease in short- and long-term cumulative impacts related to this criterion. **Impact C.3.13-2: LTS** (less than the Project) because this alternative would locate the Grove Terminal farther away from sensitive receptors, therefore, this alternative would result in a decrease in operational cumulative impacts.

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SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
		Impact C.3.13-3: LTS (less than the Project) because this alternative would locate the Grove Terminal farther away from sensitive receptors, and since the lengths of the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line are shorter, there would be a reduction in construction noise. This alternative would result in a decrease in short- and long-term impacts related to this criterion. **Impact C.3.13-4: LTS** (same as the Project) because this alternative could cumulatively expose people working in the Project area to excessive airport noise levels.		**Impact C.3.13-3: LTS** (less than the Project) because this alternative would locate the Grove Terminal farther away from sensitive receptors, and since the lengths of the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line are shorter, there would be a reduction in construction noise. This alternative would result in a decrease in short- and long-term impacts related to this criterion. **Impact C.3.13-4: LTS** (same as the Project) because this alternative could cumulatively expose people working in the Project area to excessive airport noise levels.		**Impact C.3.13-3: LTS** (less than the Project) because this alternative would locate the Grove Terminal farther away from sensitive receptors, and since the lengths of the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line are shorter, there would be a reduction in construction noise. This alternative would result in a decrease in short- and long-term impacts related to this criterion. **Impact C.3.13-4: LTS** (same as the Project) because this alternative could cumulatively expose people working in the Project area to excessive airport noise levels.
Population and Housing						
Impact 3.14-1: LTS. The Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). **Criterion b:** No Impact. The Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **Impact C.3.14-1: LTS.** The Project would not cumulatively induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). **Cumulative – Criterion b:** The Project would not contribute to any cumulative impacts related to this criterion.	**Overall: Less than the Project** **Impact 3.14-1:** No Impact (less than the Project) because no transmission project–related development would occur that could induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). **Criterion b:** No Impact (same as the Project) because no transmission project-related development would occur that could displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Overall: Same as the Project** **Impact 3.14-1: LTS** (same as the Project) because this alternative would not induce unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). **Criterion b:** No Impact (same as the Project) because this alternative would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **Impact C.3.14-1: LTS** (same as the Project) because this alternative would not cumulatively induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.	**Overall: Same as the Project** **Impact 3.14-1: LTS** (same as the Project) because this alternative would not induce unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). **Criterion b:** No Impact (same as the Project) because this alternative would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **Impact C.3.14-1: LTS** (same as the Project) because this alternative would not cumulatively induce substantial unplanned population growth in an area, either directly (for example, by 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homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.	**Overall: Same as the Project** **Impact 3.14-1: LTS** (same as the Project) because this alternative would not induce unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). **Criterion b:** No Impact (same as the Project) because this alternative would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **Impact C.3.14-1: LTS** (same as the Project) because this alternative would not cumulatively induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.

TABLE 4-11
SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Public Services						
Criterion a: No Impact. The Project would not result in a substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, or other public facilities. **Cumulative – Criterion a:** No Impact. The Project would not contribute to any cumulative impacts related to this criterion.	**Overall: Same as the Project** **Criterion a:** No Impact (same as the Project) because no transmission project-related development would occur that could result in a substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, or other public facilities. **Cumulative – Criterion a:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.	**Overall: Same as the Project** **Criterion a:** No Impact (same as the Project) because this alternative would not result in a substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, or other public facilities. **Cumulative – Criterion a:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.	**Overall: Same as the Project** **Criterion a:** No Impact (same as the Project) because this alternative would not result in a substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, or other public facilities. **Cumulative – Criterion a:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.	**Overall: Same as the Project** **Criterion a:** No Impact (same as the Project) because this alternative would not result in a substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, or other public facilities. **Cumulative – Criterion a:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.	**Overall: Same as the Project** **Criterion a:** No Impact (same as the Project) because this alternative would not result in a substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, or other public facilities. **Cumulative – Criterion a:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion.
Recreation						
Impact 3.16-1: LTS. The Project would not 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. **Criterion b**: No Impact. The Project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **Impact 3.16-2: LTS.** The Project would not reduce or prevent access to a designated recreation facility or area. **Criterion d:** No Impact. The Project would not substantially change the character of a recreational area by reducing the scenic, biological, cultural, geological, or other important characteristics that contribute to the value of recreational facilities or areas. **Impact 3.16-3: LTS.** The Project could damage recreational trails or facilities. **Impact C.3.16-1: LTS.** The Project would not cumulatively 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. **Cumulative – Criterion b:** No Impact. The Project would not contribute to any impacts related to this criterion.	**Overall: Less than the Project** **Impact 3.16-1:** No Impact (less than the Project) because no transmission project–related development would occur that could 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. **Criterion b:** No Impact (same as the Project) because no transmission project-related development would occur that could include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **Impact 3.16-2:** No Impact (less than the Project) because no transmission project–related development would occur that could reduce or prevent access to a designated recreation facility or area. **Criterion d:** No Impact (same as the Project) because no transmission project–related development would occur that could substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas. **Impact 3.16-3:** No Impact (less than the Project) because no transmission project–related development would occur that could damage recreational trails or facilities.	**Overall: Less than the Project** **Impact 3.16-1: LTS** (less than the Project) because this alternative would place the Grove Terminal on the PG&E property, resulting in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. Potential impacts on the Coyote Creek Trail would be significantly reduced under this alternative. **Criterion b:** No Impact (same as the Project) because this alternative would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **Impact 3.16-2: LTS** (less than the Project) because this alternative would place the Grove Terminal on the PG&E property, resulting in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. Potential impacts on the Coyote Creek Trail would be significantly reduced under this alternative. **Criterion d:** No Impact (same as the Project) because this alternative would not substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas.	**Overall: Same as the Project** **Impact 3.16-1: LTS** (same as the Project) because this alternative would not 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. **Criterion b:** No Impact (same as the Project) because this alternative would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **Impact 3.16-2: LTS** (same as the Project) because this alternative would not reduce or prevent access to a designated recreation facility or area. **Criterion d:** No Impact (same as the Project) because this alternative would not substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas. **Impact 3.16-3: LTS** (same as the Project) because this alternative could damage recreational trails or facilities.	**Overall: Less than the Project** **Impact 3.16-1: LTS** (less than the Project) because this alternative would place the Grove Terminal on the PG&E property, resulting in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. Potential impacts on the Coyote Creek Trail would be significantly reduced under this alternative. **Criterion b:** No Impact (same as the Project) because this alternative would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **Impact 3.16-2: LTS** (same as the Project) because this alternative would not reduce or prevent access to a designated recreation facility or area. **Criterion d:** No Impact (same as the Project) because this alternative would not substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas. **Impact 3.16-3: LTS** (same as the Project) because this alternative could damage recreational trails or facilities. **Impact C.3.16-1: LTS** (same as the Project) because this alternative would not cumulatively increase the use of existing neighborhood and regional parks	**Overall: Less than the Project** **Impact 3.16-1: LTS** (less than the Project) because this alternative would place the Grove Terminal on the PG&E property, resulting in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. Potential impacts on the Coyote Creek Trail would be significantly reduced under this alternative. **Criterion b:** No Impact (same as the Project) because this alternative would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **Impact 3.16-2: LTS** (less than the Project) because this alternative would place the Grove Terminal on the PG&E property, resulting in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. Potential impacts on the Coyote Creek Trail would be significantly reduced under this alternative. **Criterion d:** No Impact (same as the Project) because this alternative would not substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas.

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Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Impact C.3.16-2: LTS. The Project would not cumulatively reduce or prevent access to a designated recreational facility or area. **Cumulative – Criterion d:** No Impact. The Project would not contribute to any impacts related to this criterion. **Impact C.3.16-3: LTS.** The Project would not cumulatively damage recreational trails or facilities.	**Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Impact 3.16-3: LTS** (less than the Project) because this alternative would place the Grove Terminal on the PG&E property, resulting in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. Potential impacts on the Coyote Creek Trail would be significantly reduced under this alternative. **Impact C.3.16-1: LTS** (less than the Project) because this alternative would have decreased short-term impacts related to this criterion, as the alternative would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Impact C.3.16-2: LTS** (less than the Project because this alternative would have decreased short-term impacts related to this criterion, as the alternative would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. **Cumulative – Criterion d:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Impact C.3.16-3: LTS** (less than the Project) because this alternative would have decreased short-term impacts related to this criterion, as the alternative would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line.	**Impact C.3.16-1: LTS** (same as the Project) because this alternative would not cumulatively 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. **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Impact C.3.16-2: LTS** (same as the Project) because this alternative would not cumulatively reduce or prevent access to a designated recreational facility or area. **Cumulative – Criterion d:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Impact C.3.16-3: LTS** (same as the Project) because this alternative would not cumulatively damage recreational trails or facilities.	**Impact 3.16-3: LTS** (less than the Project) because this alternative would place the Grove Terminal on the PG&E property, resulting in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. Potential impacts on the Coyote Creek Trail would be significantly reduced under this alternative. **Impact C.3.16-1: LTS** (less than the Project) because this alternative would have decreased short-term impacts related to this criterion, as the alternative would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Impact C.3.16-2: LTS** (less than the Project because this alternative would have decreased short-term impacts related to this criterion, as the alternative would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. **Cumulative – Criterion d:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Impact C.3.16-3: LTS** (less than the Project) because this alternative would have decreased short-term impacts related to this criterion, as the alternative would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line.	or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Impact C.3.16-2: LTS** (same as the Project) because this alternative would not cumulatively reduce or prevent access to a designated recreational facility or area. **Cumulative – Criterion d:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Impact C.3.16-3: LTS** (same as the Project) because this alternative would not cumulatively damage recreational trails or facilities.	**Impact 3.16-3: LTS** (less than the Project) because this alternative would place the Grove Terminal on the PG&E property, resulting in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. Potential impacts on the Coyote Creek Trail would be significantly reduced under this alternative. **Impact C.3.16-1: LTS** (less than the Project) because this alternative would have decreased short-term impacts related to this criterion, as the alternative would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. **Cumulative – Criterion b:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Impact C.3.16-2: LTS** (less than the Project because this alternative would have decreased short-term impacts related to this criterion, as the alternative would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. **Cumulative – Criterion d:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts related to this criterion. **Impact C.3.16-3: LTS** (less than the Project) because this alternative would have decreased short-term impacts related to this criterion, as the alternative would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line.
Transportation						
Impact 3.17-1: LSM. The Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. **Impact 3.17-2: LTS.** Project operation and maintenance would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). **Impact 3.17-3: LSM.** The Project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections).	**Overall: Less than the Project** **Impact 3.17-1:** No Impact (less than the Project) because no transmission project–related development would occur that could conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. **Impact 3.17-2:** No Impact (less than the Project) because no transmission project–related development would occur that could conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	**Overall: Less than the Project** **Impact 3.17-1: LSM** (less than the Project) because this alternative would locate the Grove Terminal closer to the existing PG&E Metcalf Substation, which results in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. As such, this alternative would have reduced impacts on bicycle and pedestrian facilities (e.g., Coyote Creek Trail). Therefore, there would be a reduction on short-term transportation impacts.	**Overall: Same as the Project** **Impact 3.17-1: LSM** (same as the Project) because this alternative would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. **Impact 3.17-2: LTS** (same as the Project) because this alternative would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	**Overall: Less than the Project** **Impact 3.17-1: LSM** (less than the Project) because this alternative would locate the Grove HVDC Terminal closer to the existing PG&E Metcalf Substation, which results in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. As such, this alternative would have reduced impacts on bicycle and pedestrian facilities (e.g., Coyote Creek Trail). Therefore, there would be a reduction on short-term transportation impacts.	**Overall: Same as the Project** **Impact 3.17-1: LSM** (same as the Project) because this alternative would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. **Impact 3.17-2: LTS** (same as the Project) because this alternative would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	**Overall: Less than the Project** **Impact 3.17-1: LSM** (less than the Project) because this alternative would locate the Grove Terminal closer to the existing PG&E Metcalf Substation, which results in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. As such, this alternative would have reduced impacts on bicycle and pedestrian facilities (e.g., Coyote Creek Trail). Therefore, there would be a reduction on short-term transportation impacts.

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Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Impact 3.17-4: LSM. The Project would not result in inadequate emergency access. **Impact 3.17-5: LSM.** The Project would not create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations. **Impact 3.17-6: LSM.** The Project would not interfere with walking or bicycling accessibility. **Impact 3.17-7: LSM.** The Project would not substantially delay public transit. **Impact C.3.17-1: LSM.** The Project, in combination with the cumulative projects, could conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. **Impact C.3.17-2: LTS.** Project operation and maintenance, in combination with the cumulative projects, would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b). **Impact C.3.17-3: LSM.** The Project, in combination with the cumulative projects, would not result in increased hazards due to a geometric design feature. **Impact C.3.17-4: LSM.** Project construction, in combination with the cumulative projects, would not result in inadequate emergency access. **Impact C.3.17-5: LSM.** The Project, in combination with the cumulative projects, would not create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations. **Impact C.3.17-6: LSM.** Project construction, in combination with the cumulative projects, would not interfere with walking or bicycling accessibility. **Impact C.3.17-7: LSM.** Project construction, in combination with the cumulative projects, would not substantially delay public transit.	**Impact 3.17-3:** No Impact (less than the Project) because no transmission project–related development would occur that could substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections). **Impact 3.17-4:** No Impact (less than the Project) because no transmission project–related development would occur that could result in inadequate emergency access. **Impact 3.17-5:** No Impact (less than the Project) because no transmission project–related development would occur that could create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations. **Impact 3.17-6:** No Impact (less than the Project) because no transmission project–related development would occur that could interfere with walking or bicycling accessibility. **Impact 3.17-7:** No Impact (less than the Project) because no transmission project–related development would occur that could substantially delay public transit. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Impact 3.17-2: LTS** (same as the Project) because this alternative would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). **Impact 3.17-3: LSM** (same as the Project) because this alternative could also substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections). **Impact 3.17-4: LSM** (same as the Project) because this alternative would not result in inadequate emergency access. **Impact 3.17-5: LSM** (less than the Project) because this alternative would locate the Grove Terminal closer to the existing PG&E Metcalf Substation, which results in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. As such, this alternative would have reduced impacts on bicycle and pedestrian facilities (e.g., Coyote Creek Trail). Therefore, there would be a reduction on short-term transportation impacts. **Impact 3.17-6: LSM** (less than the Project) because this alternative would locate the Grove HVDC Terminal closer to the existing PG&E Metcalf Substation, which results in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. As such, this alternative would have reduced impacts on bicycle and pedestrian facilities (e.g., Coyote Creek Trail). Therefore, there would be a reduction on short-term transportation impacts. **Impact 3.17-7: LSM** (same as the Project) because this alternative would not substantially delay public transit.	**Impact 3.17-3: LSM** (same as the Project) because this alternative could also substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections). **Impact 3.17-4: LSM** (same as the Project) because this alternative would not result in inadequate emergency access. **Impact 3.17-5: LSM** (same as the Project) because this alternative would not create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations. **Impact 3.17-6: LSM** (same as the Project) because this alternative would not interfere with walking or bicycling accessibility. **Impact 3.17-7: LSM** (same as the Project) because this alternative would not substantially delay public transit **Impact C.3.17-1: LSM** (same as the Project) because this alternative, in combination with the cumulative projects, could conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. **Impact C.3.17-2: LTS** (same as the Project) because this alternative, in combination with the cumulative projects, would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b). **Impact C.3.17-3: LSM** (same as the Project) because this alternative, in combination with the cumulative projects, would not result in increased hazards due to a geometric design feature. **Impact C.3.17-4: LSM** (same as the Project) because this alternative, in combination with the cumulative projects, would not result in inadequate emergency access. **Impact C.3.17-5: LSM** (same as the Project) because this alternative, in combination with the cumulative projects, would not create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations. **Impact C.3.17-6: LSM** (same as the Project) because this alternative, in combination with the cumulative projects, would not interfere with walking or bicycling accessibility. **Impact C.3.17-7: LSM** (same as the Project) because this alternative, in combination with the cumulative projects, would not substantially delay public transit.	**Impact 3.17-2: LTS** (same as the Project) because this alternative would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). **Impact 3.17-3: LSM** (same as the Project) because this alternative could also substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections). **Impact 3.17-4: LSM** (same as the Project) because this alternative would not result in inadequate emergency access. **Impact 3.17-5: LSM** (less than the Project) because this alternative would locate the Grove Terminal closer to the existing PG&E Metcalf Substation, which results in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line. 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SUMMARY OF IMPACTS OF THE PROJECT AND ALTERNATIVES

Impacts of the Project	Impacts of the No Project Alternative Compared to the Project	Impacts of Alternative Combination 1*	Impacts of Alternative Combination 2*	Impacts of Alternative Combination 3*	Impacts of Alternative Combination 4*	Impacts of Alternative Combination 5*
Tribal Cultural Resources						
Impact 3.18.1: SU. The Project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe. **Impact C.3.18.1: SU.** The Project, in combination with the cumulative projects, would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe.	**Overall: Less than the Project** **Impact 3.18.1:** No Impact (less than the Project) because no transmission project–related development would occur that could cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe. **Impact C.3.18.1:** No Impact (less than the Project) because no transmission project-related development would occur that could contribute to any cumulative impacts associated with this criterion.	**Overall: Same as the Project** **Impact 3.18.1: SU** (same as the Project) because this alternative could cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe. **Impact C.3.18.1: SU** (same as the Project) because this alternative, in 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landscape, sacred place, or object with cultural value to a California Native American Tribe.
Utilities and Service Systems						
Impact 3.19-1: LTS. The Project could require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. **Impact 3.19-2: LTS.** The Project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. **Impact 3.19-3: LTS.** The Project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. **Impact 3.19-4: LTS.** The Project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. **Impact 3.19-5: LSM**. The Project could increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts.	**Overall: Less than the Project** **Impact 3.19-1:** No Impact (less than the Project) because no transmission project–related development would occur that could require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. **Impact 3.19-2:** No Impact (less than the Project) because no transmission project–related development would occur that could have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. **Impact 3.19-3:** No Impact (less than the Project) because no transmission project–related development would occur that could result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	**Overall: Less than the Project** **Impact 3.19-1: LTS** (less than the Project) because this alternative would place the Grove Terminal closer to the existing PG&E Metcalf Substation, which results in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line, which would reduce the duration of construction and reduces the risk for potential utilities impacts. **Impact 3.19-2: LTS** (same as the Project) because this alternative would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. **Impact 3.19-3: LTS** (same as the Project) because this alternative would not result in a determination by the wastewater treatment provider which serves or may 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The Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause or contribute to cumulatively significant environmental effects. **Impact C.3.19-2: LTS.** The Project would not cause or contribute to a cumulative effect due to insufficient availability of water supplies to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. **Impact C.3.19-3: LTS.** The Project would not 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 cumulative projected demands of the Project in addition to the provider's existing commitments. **Impact C.3.19-4: LTS.** The Project would not cumulatively generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. **Impact 3.19-5: LSM.** The Project would not cause or contribute to a significant cumulative increase in the rate of corrosion of adjacent utility lines as a result of alternating current impacts.	**Impact 3.19-4:** No Impact (less than the Project) because no transmission project–related development would occur that could generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. **Impact 3.19-5:** No Impact (less than the Project) because no transmission project–related development would occur that could increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Impact 3.19-5: LSM** (less than the Project) because this alternative would place the Grove Terminal closer to the existing PG&E Metcalf Substation, which results in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line, which would reduce the duration of construction and reduces the risk for potential utilities impacts. **Impact C.3.19-1: LTS** (less than the Project) because this alternative would place the Grove Terminal closer to the existing PG&E Metcalf Substation, which results in shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line, which would reduce the duration of construction and reduces the risk for potential utilities cumulative impacts. **Impact C.3.19-2: LTS** (same as the Project) because this alternative would not cause or contribute to a cumulative effect due to insufficient availability of water supplies to serve the project and reasonably 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Wildfire						
Criterion a: No Impact. The Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. **Impact 3.20-1: LTS.** The Project would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. **Impact 3.20-2: LTS.** The Project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. **Criterion d:** No Impact. The Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. **Cumulative – Criterion a:** No Impact. The Project would not contribute to any cumulative impacts associated with this criterion. **Impact C.3.20-1: LTS.** The Project would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to cumulative pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. **Impact C.3.20-2: LTS**. The Project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may cumulatively exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. **Cumulative – Criterion d:** No Impact. The Project would not contribute to any cumulative impacts associated with this criterion.	**Overall: Less than the Project** **Criterion a:** No Impact (same as the Project) because no transmission project-related development would occur that could substantially impair an adopted emergency response plan or emergency evacuation plan. **Impact 3.20-1:** No Impact (less than the Project) because no transmission project–related development would occur that could, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. **Impact 3.20-2:** No Impact (less than the Project) because no transmission project–related development would occur that could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. **Criterion d:** No Impact (same as the Project) because no transmission project-related development would occur that could expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. **Cumulative –** No Impacts (less than the Project) because this alternative would not result in impacts that could contribute to cumulative impacts.	**Overall: Less than the Project** **Criterion a:** No Impact (same as the Project) because this alternative would not substantially impair an adopted emergency response plan or emergency evacuation plan. **Impact 3.20-1: LTS** (less than the Project) because alternative would place the Grove Terminal closer to the PG&E Metcalf Substation, at a site where there is less fuel for potential wildfires. Therefore, this alternative would result in decreased impacts associated with wildfire. **Impact 3.20-2: LTS** (same as the Project) because this alternative would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. **Criterion d:** No Impact (same as the Project) because this alternative would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. **Cumulative – Criterion a:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts associated with this criterion. **Impact C.3.20-1: LTS** (less than the Project) because alternative would place the Grove Terminal closer to the PG&E Metcalf Substation, at a site where there is less fuel for potential wildfires. Therefore, this alternative would result in decreased cumulative impacts associated with wildfire. **Impact C.3.20-2: LTS** (same as the Project) because this alternative would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may cumulatively exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. **Cumulative – Criterion d:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts associated with this criterion.	**Overall: Same as the Project** **Criterion a:** No Impact (same as the Project) because this alternative would not substantially impair an adopted emergency response plan or emergency evacuation plan. **Impact 3.20-1: LTS** (same as the Project) because alternative would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. **Impact 3.20-2: LTS** (same as the Project) because this alternative would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. **Criterion d:** No Impact (same as the Project) because this alternative would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. **Cumulative – Criterion a:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts associated with this criterion. **Impact C.3.20-1: LTS** (same as the Project) because alternative would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to cumulative pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. **Impact C.3.20-2: LTS** (same as the Project) because this alternative would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may cumulatively exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. **Cumulative – Criterion d:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts associated with this criterion.	**Overall: Less than the Project** **Criterion a:** No Impact (same as the Project) because this alternative would not substantially impair an adopted emergency response plan or emergency evacuation plan. **Impact 3.20-1: LTS** (less than the Project) because alternative would place the Grove Terminal closer to the PG&E Metcalf Substation, at a site where there is less fuel for potential wildfires. 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Therefore, this alternative would result in decreased cumulative impacts associated with wildfire. **Impact C.3.20-2: LTS** (same as the Project) because this alternative would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may cumulatively exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. **Cumulative – Criterion d:** No Impact (same as the Project) because this alternative would not contribute to any cumulative impacts associated with this criterion.

CHAPTER 5
Other CEQA Considerations

5.1 Introduction

The California Environmental Quality Act (CEQA) Guidelines Section 15126 requires an Environmental Impact Report (EIR) to discuss certain topics that were not specifically discussed in previous EIR chapters. Accordingly, this chapter discusses the following topics:

(1) Significant environmental effects of the Project that cannot be avoided.

(2) Significant irreversible environmental changes that would result from the Project.

(3) Growth-inducing impacts of the Project.

(4) Environmental justice considerations.

5.2 Significant Unavoidable Environmental Effects

Section 15126.2(c) of the CEQA Guidelines requires that an EIR identify significant environmental effects of the Project that cannot be avoided, including those that can be mitigated, but not to a less-than-significant level. The Project's significant unavoidable impacts are described in Chapter 3 of this Draft EIR and summarized here. The Project would result in significant unavoidable impacts on cultural resources and tribal cultural resources. These impacts would remain significant and unavoidable even with the implementation of LS Power Grid California, LLC's (LSPGC) Applicant-proposed measures (APMs), Pacific Gas & Electrical Company's (PG&E) best management practices (BMPs) and field protocols (FPs), and/or mitigation measures.

The Project would: cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 (see Impact 3.5-1 in Section 3.5, *Cultural Resources*) and disturb any human remains, including those interred outside of dedicated cemeteries (see Impact 3.5-2 in Section 3.5), which would result in significant and unavoidable environmental effects. In addition, the Project would: cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe (see Impact C.3.18.1, *Tribal Cultural Resources*).

As detailed in Section 3.5 and Section 3.18, based on the Native American Heritage Commission Sacred Lands File search, records search, pedestrian survey results, and Native American consultation, previously recorded cultural resources with human remains have been identified in and adjacent to the Project area. Therefore, the Project is likely to impact cultural resources and

tribal cultural resources listed or eligible for listing in the California Register or a local register of historical resources as defined in PRC Section 5020.1(k). Further, as discussed in Section 3.5, *Cultural Resources*, there is a high potential for unrecorded subsurface archaeological materials to be uncovered during the proposed ground-disturbing activities, particularly in areas that are undisturbed. Implementation of APM CUL-1 through APM CUL-5, APM TCR-1, APM TCR-2, PG&E BMP CULT-1 through PG&E BMP CULT-5, LSPGC Mitigation Measure 3.5-1, and PG&E Mitigation Measure 3.5-1, as well as adherence to applicable laws and regulations, would help reduce impacts associated with the discovery of cultural resources and tribal cultural resources, if identified during Project construction. However, complete mitigation is unattainable, therefore, impacts to cultural resources and tribal cultural resources would be significant and unavoidable, as discussed further in Sections 3.5 and 3.18.

5.3 Significant Irreversible Changes

Section 15126.2(c) of the CEQA Guidelines requires that an EIR identify significant irreversible environmental changes that would be caused by the Project. These changes may include, for example, uses of non-renewable resources, or provision of access to previously inaccessible areas, as well as project accidents that could change the environment in the long term, or a change in land use that commits future generations to similar uses. Development of the Project would require 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 Project's useful lifetime, and energy required to produce materials.

Furthermore, construction of the Project would result in 19 acres of permanent disturbance on vegetation communities associated with the proposed transmission lines, proposed HVDC terminals, proposed modifications to the existing PG&E substations, and temporary staging areas. However, as evaluated in Section 3.4, *Biological Resources*, while the Project would impact biological resources, with implementation of LSPGC APMs, PG&E BMPs and FPs, and mitigation measures, impacts to biological resources would be reduced to less than significant.

Operation of the Project would allow for the transport of additional electrical power generated from renewable and non-renewable resources, although the Project itself would require only limited future use of non-renewable resources. While the 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 Project, as the production and use of the carbon-based products that would become electricity transported by the Project has been, or will be, approved by permitting agencies. And as evaluated in Section 3.6, *Energy*, Project-specific energy demands would not be expected to have a significant adverse effect on energy resources, and the amount, form, and use of energy required for the Project would not be wasteful, inefficient, or unnecessary. Therefore, the primary and secondary impacts resulting from the Project would be less than significant.

Accidents, such as the release of hazardous materials, could trigger irreversible environmental damage. As discussed in Section 3.9, *Hazards and Hazards Materials*, construction of the 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 and the public, as well as the environment. Considering the types and minimal quantities of hazardous materials that would be used for the Project and the emergency response plans and other procedures that would be required by LPSGC APMs, PG&E BMPs and FPs, and mitigation measures, and numerous laws and regulations the Project is expected to adhere to, accidental release is unlikely. State and federal regulations and safety requirements, as described in the regulatory setting in Section 3.9, would ensure that public health and safety risks would be maintained at acceptable levels, so that significant irreversible changes from accidental releases are not expected.

5.4 Growth-Inducing Effects

CEQA requires a discussion of the ways in which a project could induce growth. CEQA Guidelines Section 15126.2(e) 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.

Growth inducement can be a result of new development that increases employment levels, removes barriers to development, or provides resources that lead to secondary growth. With respect to employment, the peak employment for the Project overall would be approximately 250 workers, but, on average, the workforce on-site during active work sites throughout the Project would be less. The existing construction labor pool in the Greater Bay Area is sufficient for meeting Project needs. According to the California Employment Development Department, the unemployment rates for Alameda, San Mateo, and Santa Clara counties were 4.7 percent, 3.5 percent, and 4.0 percent, respectively, which are lower than the state unemployment rate of 5.3 percent.

After construction, LSPGC would hire one technician to be located near the Project site to perform routine inspections, monitoring, and repairs. LSPGC would also have two other technicians located in California for LSPGC's other projects who would assist in O&M of the Project facilities, if needed. Day-to-day management of the Project would be provided by LSPGC's asset management team from remote control centers. Routine inspections would include, but are not limited to, monitoring of vegetation growth, road conditions, water drainage conditions, sensor and splice vault inspections, and visual transmission line inspections. Inspections would vary in frequency from monthly to every five years, depending on factors such as monitoring protocols and permit requirements, as well as on an as-needed basis. Non-routine (emergency) maintenance could require additional workers. Site restoration activities are expected to require a workforce similar to or smaller than the construction workforce.

Since construction would be temporary, the Project is unlikely to cause substantial numbers of people to relocate to Santa Clara County. Therefore, this Project would not result in a large increase in employment levels that would significantly induce growth.

It is expected that construction workers would commute to the Project sites instead of relocating to the Greater Bay Area; however, even if all workers were to relocate to the Greater Bay Area, the existing available housing supply could accommodate them without requiring new construction. Santa Clara County has a vacancy rate of approximately 4.7 percent. Therefore, the Project is not expected to induce population growth, the housing and provision of services for which could cause significant adverse environmental impacts.

The Project would not generate energy, but it would contribute to the energy supply by storing electricity during times of excess generation and dispatching it to the grid when needed. The development of power infrastructure is a response to increased market demand, and the availability of electrical capacity by itself does not 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.

5.5 Environmental Justice

A CEQA lead agency may use information about the economic or social impacts of a project to determine the significance of physical changes caused by the project, but the economic or social effects of a project are not treated as significant effects on the environment.

Per CEQA guidelines Section 15131, “Economic or social information may be included in an EIR or may be presented in whatever form the agency desires.” The section continues:

a) Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

b) Economic or social effects of a project may be used to determine the significance of physical changes caused by the project. […] Where an EIR uses economic or social effects to determine that a physical change is significant, the EIR shall explain the reason for determining that the effect is significant.

c) Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR. […]

The Office of the California Attorney General (OAG) has clarified that environmental justice concerns are relevant to the analysis of a project under CEQA, and has recommended that lead agencies address environmental justice by evaluating whether a project’s impacts would affect a

community whose residents are particularly sensitive to the impact (i.e., sensitive receptors) and whether a project would have significant effects on communities when considered together with any environmental burdens, those communities already are bearing, or may bear from probable future projects (i.e., cumulative impacts). Additionally, OAG indicates that a CEQA lead agency must be clear and transparent in its Statement of Overriding Considerations about the balances it has struck in approving a project, such as whether the benefits of the project will be enjoyed widely, but the environmental burdens of a project will be felt particularly by the neighboring communities (OAG, 2012).

On February 22, 2018, Attorney General Becerra established the Bureau of Environmental Justice, and, on April 28, 2021, Attorney General Bonta announced the expansion of the Bureau, which is currently comprised of 12 attorneys who address environmental injustices on communities who are often under-resourced and overburdened. The Bureau of Environmental Justice's mission is to protect people and communities that endure a disproportionate share of environmental pollution and public health hazards. The Attorney General's Office and its Bureau of Environmental Justice use several tools to advance environmental justice, including CEQA reviews. CEQA requires government agencies in California to consider potentially significant environmental impacts on communities already burdened with pollution when reviewing and permitting new projects (OAG 2024).

The information presented in this section informs such environmental justice considerations should the Project or one of the alternatives to the Project is approved.

5.5.1 Environmental Justice Considerations

5.5.2.1 Impacts on Sensitive Receptors and Cumulative Environmental Burdens

The environmental impacts of the Project on sensitive receptors and the Project's impacts together with existing or foreseeable cumulative environmental burdens experienced by nearby communities are analyzed in the EIR in the following sections: Section 3.3, *Air Quality*; Section 3.9, *Hazards and Hazardous Materials*; and Section 3.13, *Noise*.

As discussed in detail in Chapter 4, *Alternatives*, the alternatives evaluated in this Draft EIR include: the CEQA-required No Project Alternative, Grove Terminal Alternative 3, Downtown Alignment Alternative 1, and Downtown Alignment Alternative 2. These alternatives could also be combined to form different Project configurations, which result in five additional alternative combinations (e.g., Alternative Combination 1 through Alternative Combination 5). Thus, there are a total of seven different alternatives, including the Project and the No Project Alternative. Impacts of the Project and alternatives on sensitive receptors relative to air quality, hazards and hazardous materials, and noise, would include:

Air Quality

- **Impact 3.3-1:** The Project would conflict with or obstruct implementation of the applicable air quality plan. (Less than Significant with Mitigation)

  - Alternative Combination (AC)-1, AC-3, & AC-5: Less than the Project. These Alternatives would reduce the lengths of both the Grove to Skyline 320 kV Transmission Line and the Metcalf to Grove 500 kV AC Transmission Line by approximately 1.2 miles, which would result in a decrease in temporary air pollutant emissions.

  - AC-2 & AC-4: Same as the Project. These alternatives would result in a similar amount of air pollutant emissions as the Project, since the alignments near downtown San José are approximately the same lengths.

- **Impact 3.3-2:** The Project would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment under an applicable federal or state ambient air quality standard. (Less than Significant with Mitigation)

  - AC-1, AC-3, & AC-5: Less than the Project. As discussed above, these alternatives would reduce the lengths of both the Grove to Skyline 320 kV Transmission Line and the Metcalf to Grove 500 kV AC Transmission Line, which would result in a decrease in temporary criteria air pollutant emissions.

  - AC-2 & AC-4: Same as the Project. These alternatives would result in the generation of a similar amount of criteria air pollutants as the Project, since the alignments near downtown San José are approximately the same lengths.

- **Impact 3.3-3:** The Project would expose sensitive receptors to substantial pollutant concentrations. (Less than Significant with Mitigation)

  - AC-1, AC-3, & AC-5: Less than the Project. Because the nearest sensitive receptors are farther than 1,000 feet from the GTA-3 site, sensitive receptor exposure to pollutant concentrations would be substantially reduced compared to the Project.

  - AC-2 & AC-4: Same as the Project. These alternatives would result in a similar amount of air pollutant emissions as the Project, since the alignments near downtown San José are approximately the same lengths.

- **Impact 3.3-4:** The Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (Less than Significant)

  - AC-1, AC-3, & AC-5: Less than the Project. These alternatives would reduce sensitive receptor exposure to odors due to the location of the GTA-3 site and the reduced lengths of both the Grove to Skyline 320 kV Transmission Line and the Metcalf to Grove 500 kV AC Transmission Line.

  - AC-2 & AC-4: Same as the Project. These alternatives would result in a similar level of sensitive receptor exposure to odors.

Hazards and Hazardous Materials

- **Impact 3.9-1:** The Project would involve the routine transport, use, and disposal of hazardous materials that could result in an accidental release of hazardous materials into the environment. (Less than Significant)

  - AC-1 through AC-5: Same as the Project. These alternatives would also involve the routine transport, use, and disposal of hazardous materials that could result in an accidental release of hazardous materials into the environment.

- **Impact 3.9-2:** The Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. (Less than Significant)
  - AC-1 through AC-5: Same as the Project. These alternatives could also emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.
- **Impact 3.9-3:** The Project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but would not create a significant hazard to the public or the environment. (Less than Significant)
  - AC-1 through AC-5: Same as the Project. These alternatives could also 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.
- **Impact 3.9-4:** The Project would not result in a safety hazard or excessive noise for people residing or working in the Project area due to it being 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. (Less than Significant)
  - AC-1, AC-3, & AC-5: Less than the Project. These alternatives would place the Grove HVDC Terminal farther away from people residing or working near the southern end of the Project area. Also, these alternatives would require shorter lengths for the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line, which would reduce construction-related safety hazards and excessive noise exposure.
  - AC-2 & AC-4: Same as the Project. These alternatives would not result in a safety hazard or excessive noise exposure for people residing or working in the Project area due to it being 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.
- **Impact 3.9-5:** The Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant)
  - AC-1 through AC-5: Same as the Project. These alternatives could also impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- **Impact 3.9-6:** The Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. (Less than Significant)
  - AC-1, AC-3, & AC-5: Less than the Project. These alternatives would have less impacts than those discussed for the Project for this criterion because the GTA-3 site does not contain fuel for potential wildfires; therefore, there would be a risk reduction associated with wildland fires under this alternative.
  - AC-2 & AC-4: Same as the Project. These alternatives would not create a significant hazard to air traffic from the installation of new power lines and structure.
- **Impact 3.9-7:** The Project would not expose workers or the public to excessive shock hazards. (Less than Significant)
  - AC-1 through AC-5: Same as the Project. These alternatives would not expose workers or the public to excessive shock hazards.

Noise and Acoustics

- **Impact 3.13-1:** The Project would generate a substantial temporary increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. (Less than Significant with Mitigation)
  - AC-1, AC-3, & AC-5: Less than the Project. These alternatives would locate the Grove HVDC Terminal farther away from sensitive receptors, and since the lengths of the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line are shorter, there would be a reduction in construction noise. This alternative would result in a decrease in short- and long-term impacts related to this criterion.
  - AC-2 & AC-4: Same as the Project. The construction of these alternatives would generate a substantial temporary increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance.
- **Impact 3.13-2:** Project operation would generate a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. (Less than Significant with Mitigation)
  - AC-1, AC-3, & AC-5: Less than the Project. These alternatives would locate the Grove HVDC Terminal farther away from sensitive receptors; therefore, this alternative would result in a decrease in operational noise impacts.
  - AC-2 & AC-4: Same as the Project. The operation of these alternatives could generate a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance.
- **Impact 3.13-3:** Project construction would generate excessive groundborne vibration noise levels. (Less than Significant with Mitigation)
  - AC-1, AC-3, & AC-5: Less than the Project. These alternatives would locate the Grove HVDC Terminal farther away from sensitive receptors, and since the lengths of the Grove to Skyline 320 kV Transmission Line and Metcalf to Grove 500 kV Transmission Line are shorter, there would be a reduction in construction vibration noise levels.
  - AC-2 & AC-4: Same as the Project. The construction of these alternatives would generate excessive groundborne vibration noise levels.
- **Impact 3.13-4:** Project operation would generate groundborne vibration noise levels. (Less than Significant)
  - AC-1, AC-3, & AC-5: Less than the Project. These alternatives would locate the Grove HVDC Terminal farther away from sensitive receptors, therefore, this alternative would result in a decrease in operational vibration noise levels.
  - AC-2 & AC-4: Same as the Project. The operation of these alternatives would generate excessive groundborne vibration noise levels.
- **Impact 3.13-5:** The Project could expose people working in the Project area to excessive airport noise levels. (Less than Significant)
  - AC-1 through AC-5: Same as the Project. These alternatives could expose people working in the Project area to excessive airport noise levels.

Summary

As evaluated in detail in Chapter 4, AC-1, AC-3, and AC-5 would result in lesser or similar impacts to sensitive receptors compared to the Project. From an environmental justice perspective, AC-1, AC-3, and AC-5 would provide the most substantial reductions in impacts on sensitive receptors compared to the Project.

5.5.2.2 Balance of Impacts and Benefits

Construction of the Project is needed to ensure the reliability of the area's California Independent System Operator-controlled grid by strengthening the electrical grid in the Greater Bay Area, specifically within Santa Clara County. The Project's location is shown in Figure 2-1, *Project Location*.

The CPUC must come to a decision that "[s]pecifically identified expected benefits from the project outweigh the policy of reducing or avoiding significant environmental impacts of the project" (CEQA Guidelines Section 15043(b)). The CPUC must "state in writing the specific reasons to support its action based on the final EIR and/or other information in the record" and must set forth the reasons for its action finding that the adverse impacts of the Project are "acceptable" in light of the benefits that outweigh those effects (PRC 21081 (b); CEQA Guidelines Section 15093(a)).

As analyzed in the impacts identified above, some of the Project site-specific burdens would occur within the Project area. Sensitive receptors (e.g., residences) in the area may experience the burdens of the Project including but not limited to, for example, temporary impacts related to air quality and noise. Further, as briefly discussed above in Section 5.2, the Project is anticipated to result in significant and unavoidable impacts on cultural resources and tribal cultural resources. However, given the purpose of the Project is to ensure the reliability of the area's electrical grid, which, in turn, would result in long-term benefits to residents, impacts within the Project area would not cause a substantial imbalance of impacts and benefits. These benefits could include improvements in other CEQA resource areas, because of increased electric system reliability, such as air quality, energy, transportation, and utilities and service systems.

And should the Project, or alternatives, result in a substantial impact associated with cultural resources and tribal cultural resources, implementation of LSPGC APMs, PG&E BMPs, and mitigation measures would help to reduce such impacts, which would support a balance of impacts and benefits. Furthermore, the Project is expected to meet all identified Project objectives, specifically those addressing near-term and long-term reliability concerns within Santa Clara County; therefore, it is anticipated that the Project would result in a net benefit in the long term.

5.6 References

OAG (Office of Attorney General). 2012. Environmental Justice at the Local and Regional Level Legal Background. Available at: http://oag.ca.gov/sites/all/files/agweb/pdfs/environment/ej_fact_sheet.pdf. Accessed October 10, 2024.

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CHAPTER 6
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