CALIFORNIA PUBLIC UTILITIES COMMISSION

LS POWER GRID CALIFORNIA's POWER THE SOUTH BAY PROJECT

Draft Environmental Impact Report

June 2025

A.24-05-014
State Clearinghouse No. 2024071095

Prepared for:
California Public Utilities Commission

Prepared by:
Environmental Science Associates

ESA

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Acronyms and Abbreviation

°	degrees
°F	degrees Fahrenheit
2017 Scoping Plan Update	2017 *Climate Change Scoping Plan Update*
2022 Scoping Plan	2022 *Scoping Plan for Achieving Carbon Neutrality*
AB	Assembly Bill
ABAG	Association of Bay Area Governments
AC	alternating current
AC Transit	Alameda–Contra Costa County Transit
ACWD	Alameda County Water District
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee regulatory air dispersion model
AF	acre-feet
AIA	Airport Influence Area
APLIC	Avian Power Line Interaction Committee
APM	Applicant-proposed measure
ASG	Advanced Specialty Gas
ATCM	air toxics control measure
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
Basin Plan	San Francisco Bay Basin Water Quality Control Plan
Bay Area O&M HCP	San Francisco Bay Area Operations and Maintenance Habitat Conservation Plan
BCDC	San Francisco Bay Conservation and Development Commission
bhp	brake horsepower
bgs	below ground surface
BMP	best management practice
C	Celsius
C&D	construction and demolition
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAFÉ	Corporate Average Fuel Economy
CAISO	California Independent System Operator
CAL FIRE	California Department of Forestry and Fire Protection

CalEEMod	California Emissions Estimator Model
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historical Resources
Cal/OSHA	California Division of Occupational Safety and Health
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	climate action plan
CARB	California Air Resources Board
CBC	California Building Code
CCP	comprehensive conservation plan
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbon compounds
CFR	Code of Federal Regulations
CGP	Construction Stormwater General Permit
CHSC	California Health and Safety Code
CNDDB	California Natural Diversity Database
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CPCN	certificate of public convenience and necessity
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Resources
CRLF	California red-legged frog
CRPR	California Rare Plant Rank
CRS	cultural resources specialist
CTS	California tiger salamander
CWA	Clean Water Act
CY	cubic yards
dB	decibels
dBA	A-weighted decibels
DNL	day-night average noise level

Don Edwards NWR	Don Edwards San Francisco Bay National Wildlife Refuge
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DPR	California Department of Parks and Recreation
DPS	Distinct Population Segment
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EFS	environmental field specialist
EIR	environmental impact report
EMF	electric and magnetic fields
EPA	U.S. Environmental Protection Agency
ESA	Environmental Science Associates
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FFD	Fremont Fire Department
FHSZ	fire hazard severity zone
FMMP	Farmland Mapping and Monitoring Program
FP	field protocol
FPD	Fremont Police Department
FR	*Federal Register*
ft.	feet
FTA	Federal Transit Administration
GHG	greenhouse gas
GO	General Order
Greater Bay Area	Greater San Francisco Bay Area
GWh	gigawatt-hours
GWMP	Groundwater Management Plan
GWP	global warming potential
HAZCOM	hazardous materials communication
HCP	habitat conservation plan
HDD	horizontal directional drilling
HFTD	High Fire Threat District
HMBP	hazardous materials business plan
HMMP	hazardous materials management plan
hp	horsepower
HRA	health risk assessment

HSC	Health and Safety Code
HVDC	high-voltage direct current
I-680	Interstate 680
I-880	Interstate 880
in/sec	inches per second
ITP	incidental take permit
KOP	key observation points
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hours
lbs	pounds
LOS	level of service
LSAA	Lake or Streambed Alteration Agreement
LSPGC	LS Power Grid California
m	meters
MBTA	Migratory Bird Treaty Act
MFD	Milpitas Fire Department
mm^2	square millimeters
MM	Mitigation Measure
MOT	materials of trade
MPD	Milpitas Police Department
mpg	miles per gallon
mph	miles per hour
MRR	Mandatory Reporting Rule for GHGs
MSDS	Material Safety Data Sheet
MTC	Metropolitan Transportation Commission
$MTCO_2e$	metric tons of carbon dioxide equivalent
Muni Water	San José Municipal Water System
MW	megawatts
MWh	megawatt-hours
MUTCD	Manual on Uniform Traffic Control Devices
NAAQS	national ambient air quality standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NEC	National Electrical Code
NEHRP	National Earthquake Hazards Reduction Program
NERC	North American Electric Reliability Corporation

Newark to NRS 230 kV AC transmission line	new 230 kV AC transmission line that would connect the existing PG&E Newark 230 kV Substation and the existing Silicon Valley Power Northern Receiving Station 230 kV Substation
NHTSA	National Highway Traffic Safety Administration
NN	Newark-NRS
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRS	Northern Receiving Station
NWPT	northwestern pond turtle
NWR	National Wildlife Refuge
O&M	operation and maintenance
OEHHA	Office of Environmental Health Hazard
OFEE	oil-filled electrical equipment
OPGW	optical ground wire
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PEA	Proponent's Environmental Assessment
PERP	Statewide Portable Equipment Registration Program
PG&E	Pacific Gas and Electric Company
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
PPV	peak particle velocity
PRC	California Public Resources Code
PRMMP	Paleontological Resources Mitigation Monitoring Plan
Project	Power the South Bay Project
PVC	polyvinyl chloride
R.	Rulemaking
RHNA	Regional Housing Needs Allocation
ROW	right-of-way
RPS	Renewables Portfolio Standard
RWF	San José–Santa Clara Regional Wastewater Facility
RWQCB	regional water quality control board

SAFE	Safer Affordable Fuel-Efficient
San Francisco Bay RWQCB	San Francisco Bay Regional Water Quality Control Board
SB	Senate Bill
SCPAL	Santa Clara Police Activities League
SCPD	Santa Clara Police Department
SCVRPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SDS	Safety Data Sheet
SDNHM	San Diego Natural History Museum
SF_6	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SFPUC	San Francisco Public Utilities Commission
SGMA	Sustainable Groundwater Management Act
SHPO	California State Historic Preservation Office
SJCE	San José Clean Energy
SJFD	San José Fire Department
SJW	San José Water Company
SLF	Sacred Lands File
SME	Subject Matter Expert
SMHM	salt marsh harvest mouse
SMP	soil management plan
SPCCP	Spill Prevention, Control, and Countermeasure Plan
SRA	State Responsibility Area
SR	State Route
State Lands Commission	California State Lands Commission
State Water Board	State Water Resources Control Board
SVP	Silicon Valley Power
SWPPP	stormwater pollution prevention plan
SWRCB	California State Water Resources Control Board
TAC	toxic air contaminant
TCP	traffic control plan
TCR	tribal cultural resource
TIA	Transmission Interconnection Agreement
TMP	Trail Management Plan
TMP	transmission maintenance plan
transmission line	Newark to NRS 230 kV AC transmission line
TSDF	treatment, storage, and disposal facility
TSP	tubular steel pole

UCMP	University of California Museum of Paleontology
USA	Underground Service Alert
USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UWMP	urban water management plan
Valley Water	Santa Clara Valley Water District
VdB	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compound
VTA	Santa Clara Valley Transportation Authority
VTP	Valley Transportation Plan
WEAP	Worker Environmental Awareness Program
WMP	Wildfire Mitigation Plan
WSCP	Water Shortage Contingency Plan
WUI	wildland urban interface
XLPE	cross-linked polyethylene
ZEV	zero-emissions vehicle

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EXECUTIVE SUMMARY

ES.1 Introduction

LS Power Grid California, LLC (LSPGC), in its California Public Utilities Commission (CPUC) application (A.24-05-014) filed on May 17, 2024, requested a certificate of public convenience and necessity (CPCN) for the proposed Power the South Bay Project (Project) in Alameda and Santa Clara counties. LSPGC's application for a CPCN included a 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 initial application with the CPUC, the California Independent System Operator (CAISO) Board of Governors approved a modified version of the Project.[1] On December 30, 2024, LSPGC filed a motion to amend the application based on the CAISO-approved changes. The CPUC administrative law judge granted the motion on February 10, 2025, and LSPGC filed an amended application on February 28, 2025. The CPUC deemed the amended application complete on March 26, 2025.

The Project primarily consists of a new 230-kilovolt (kV) alternating current (AC) transmission line that would be constructed and operated by LSPGC. That transmission line, referred to in this document as the *Newark to NRS 230 kV AC transmission line* or *transmission line*, would connect the existing Pacific Gas and Electric Company (PG&E) Newark 230 kV Substation to the existing Silicon Valley Power (SVP) Northern Receiving Station (NRS) 230 kV Substation (**Figure ES-1**, *Project Location*). The transmission line would extend approximately 12 miles alternating between overhead and underground for 2 and 10 miles, respectively. The construction of the transmission line would also include installation and/or modification of 15 overhead transmission structures. In addition, the Project would also include telecommunication infrastructure that would be co-located with the transmission line, which would include two telecommunication fiber optic cables.

[1] The original Project scope approved by CAISO, called the "Newark to NRS HVDC Project," included the construction of two new high-voltage direct current (HVDC) terminals and a 320 kV direct current (DC) transmission line connecting the two new HVDC terminals. The modified Project no longer includes the HVDC terminals or 320 kV DC transmission line. Instead, the Project now includes a 230 kV alternating current (AC) transmission line.

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SOURCE: KP Environmental, 2025

Power the South Bay Project

Figure ES-1
Project Location

The Project would also include modifications to the existing PG&E Newark 230 kV Substation and the existing SVP NRS 230 kV Substation which would be necessary to interconnect LSPGC's new transmission line. These substation modifications would be constructed by PG&E and SVP, respectively, and each entity would continue to operate its own substation and equipment. The Project area is located in the cities of Fremont, Milpitas, San José, and Santa Clara, within Alameda and Santa Clara counties, California. Additional details are provided in Chapter 2, *Project Description*.

The Project, for the purpose of this California Environmental Quality Act (CEQA) analysis, includes the components that would be constructed and operated by LSPGC and the modifications at the existing PG&E and SVP substations that would be constructed and operated by PG&E and SVP, respectively. The CPUC will use the information in this CEQA document to inform its decision whether to grant or deny the LSPGC application to construct and operate the LSPGC Power the South Bay Project. The modifications at the existing PG&E and SVP 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 SVP are not applicants. The PG&E interconnection 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]. SVP is a non-profit municipal electric utility owned and operated by the City of Santa Clara, so its interconnection work, while analyzed as part of the whole of the Project, is not subject to the jurisdiction of the CPUC.

Based on the analysis in the Draft 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 to below the level of significance with the incorporation of feasible mitigation measures agreed to by LSPGC, with the exception of air quality (i.e., the exposure of sensitive receptors to substantial pollutant concentrations).

The Project mitigation measures applicable to LSPGC's portion of the Project, the Applicant-proposed measures (APMs; applicable only to LSPGC's portion of the Project), and the PG&E best management practices (applicable only to PG&E's portion of the Project) would reduce this air quality impact to a less-than-significant level for those respective portions of the Project. However, as SVP is a public agency, the portion of the Project to be implemented by SVP is not subject to the jurisdiction of the CPUC. Therefore, the CPUC does not have the authority to impose or enforce mitigation or compliance requirements on SVP. With no commitment from SVP to employ mitigative actions to reduce this impact for its portion of the Project, the CPUC must find that the application of mitigation to address this impact is legally infeasible due to lack of jurisdiction, as explained in CEQA Guidelines section 15091(a)(2). Based on this, and the whole of the record at the time of Project approval, the CPUC will need to consider the adoption of a Statement of Overriding Considerations acknowledging this significant and unavoidable impact and weighing it against the Project benefits (CEQA Guidelines section 15093). With this, adoption of the EIR would satisfy the requirements of CEQA.

[2] LSPGC's application for a CPCN was initially filed and deemed complete in June 2024 when GO 131-D was in effect. Therefore, LSPGC's portion of the Power the South Bay Project will be permitted under GO 131-D. All filings after January 30, 2025, are subject to GO 131-E requirements, therefore, PG&E and SVP's portion of the Project will be permitted under GO 131-E.

ES.2 Purpose and Use of the Draft EIR

CEQA Guidelines Section 15124(d) requires that an EIR contain 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

LSPGC has identified the objectives for the Project in its CPCN application (LSPGC 2025), as follows:

- Meet CAISO's reliability-driven need by addressing multiple near-, mid-, and long-term reliability issues in the existing San José 115 kV system.
- Meet the technical specifications set forth by CAISO.
- Facilitate the deliverability of energy from existing and proposed renewable generation projects to the Greater Bay Area and corresponding progress toward achieving California's Renewable 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.
- 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 to air quality. These impacts would remain significant and unavoidable even with implementation of environmental measures and mitigation measures.

TABLE ES-1
ANTICIPATED PERMITS AND APPROVALS

Agency	Permit/Approvals
City of Fremont	Traffic control plan
City of Fremont	Encroachment permit
City of San José	Traffic control plan
City of San José	Encroachment permit
City of Santa Clara	Traffic control plan
City of Santa Clara	Encroachment permit
Santa Clara Valley Water District	Encroachment permit
California Department of Transportation	Encroachment permit
California Department of Industrial Relations, Division of Occupational Safety and Health, Mining and Tunneling Unit	Classification of new underground project
State Water Resources Control Board	CWA, National Pollutant Discharge Elimination System General Permit for Discharge of Construction Related Stormwater
California Department of Fish and Wildlife	Section 1602 Lake or Streambed Alteration Agreement
California Department of Fish and Wildlife	Section 2081 incidental take permit or Section 2080.1 consistency determination
San Francisco Bay Conservation and Development Commission	Administrative permit
California Public Utilities Commission	California Public Utilities Code Section 1001 et seq. and CPUC General Order 131-E CPCN
Regional Water Quality Control Board	CWA Section 401 water quality certification and/or Waste Discharge Requirement
California State Lands Commission (CSLC)	Lease
U.S. Army Corps of Engineers	CWA Section 404 Permit—Nationwide Permit
U.S. Army Corps of Engineers	Section 408 Program (Rivers and Harbors Act of 1899)
U.S. Army Corps of Engineers and California State Historic Preservation Office	National Historic Preservation Act Section 106 consultation
U.S. Fish and Wildlife Service	Section 7 or Section 10 incidental take permit
Federal Aviation Administration	Determination of No Hazard
Union Pacific Railroad	New Wireline Crossing Authorization

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. With respect to employment, the peak employment for the Project overall would be approximately 200 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 and Santa Clara counties were 4.8 and 4.5 percent, respectively, which was lower than the state unemployment rate of 5.4 percent (EDD 2025a, 2025b). After construction, the LSPGC would hire one technician to be located near the Project site to perform routine inspections, monitoring, and repairs. Routine inspections would include, but not limited to, monitoring of vegetation growth, road conditions, sensor and splice vault inspections, and visual transmission line inspections. Inspections would vary in frequency from annually 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 Alameda or Santa Clara counties. 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(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. Alameda and Santa Clara counties have vacancy rates of approximately 4.9 percent and 4.7 percent, respectively (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 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.

ES.5.4 Summary of Project Impacts and Mitigation Measures

As analyzed in Chapter 3, the Project would cause no impact in any of the areas identified in **Table ES-2**, *Areas of No Impact.*

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 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. • 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 cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. • There would be no impact on soil erosion or topsoil loss during Project operation. • 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. • Project operations would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature.
Hydrology and Water Quality	• Project operations would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. • The Project would not alter the course of any of the surface waters crossed, as methods such as jack and bore, micro-tunneling, and horizontal directional drilling are proposed at all water crossings.
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.

TABLE ES-2
AREAS OF NO IMPACT

Resource Area	CEQA Guidelines Appendix G Environmental Checklist Consideration
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.
Noise and Vibration	• The Project would not conflict with applicable local noise policies or ordinances related to time-of-day restrictions for construction.
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 a substantial increase in demand for school facilities and would not require the construction of a new school or modification of an existing school, the construction of which could cause environmental effects. • The Project would not require the construction of new parks or modification of existing parks, the construction of which could cause significant environmental effects. • The Project would not result in substantial adverse impacts to other public facilities, such as public libraries, hospitals, or other civic uses.
Recreation	• Project operations 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. • 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.
Transportation	• The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. • Project construction would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b). • The Project would not substantially increase hazards due to incompatible uses. • Project operations would not result in inadequate emergency access. • Project operations would not substantially delay public transit.
Utilities and Service Systems	• The Project would not result in the permanent construction of new or expanded water facilities or wastewater facilities such as restrooms, nor would it require the expansion of stormwater drainage or natural gas utilities. No impacts on new or expanded water, wastewater treatment, stormwater drainage, or natural gas utilities would occur during Project operations. • The Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. • Project operations 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. • The Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. • The Project's substation modifications would not increase the rate of corrosion of adjacent utility lines.
Wildfire	• Project operations would not substantially impair an adopted emergency response plan or emergency evacuation plan.

In its PEA, LSPGC identified APMs intended to avoid or reduce potential impacts associated with the Project. In some instances, those LSPGC APMs have been supplemented or superseded by CPUC-recommended mitigation measures, as described in this Draft EIR. Those LSPGC APMs that have not been supplemented or superseded by mitigation measures are considered part of the Project for the purpose of this Draft EIR, and upon adoption of the Final EIR, would become part of the Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) to assure that implementation of and compliance with the measures would be monitored and enforced by the CPUC.

PG&E has also proposed Best Management Practices (BMPs) and field protocols (FPs) to reduce effects associated with the proposed modifications at the existing PG&E Newark 230 kV Substation. PG&E has committed to implementing all of the proposed BMPs and FPs for its portion of work for the Project. SVP has proposed no construction measures for its portion of work for the Project.

Based on the analysis documented in this Draft EIR, in addition to the implementation of LSPGC APMs and PG&E BMPs and FPs, mitigation measures are recommended for the following resource areas to reduce potentially significant impacts of the Project to a less-than-significant level:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

The mitigation measures either supplement or supersede the APMs proposed by the Applicant, or PG&E's BMPs and/or FPs. LSPGC has agreed to implement all of the recommended mitigation measures as part of the Project. Upon adoption of the Final EIR, the recommended mitigation measures would become part of the Project's MMCRP.

Table ES-3, *Summary of Impacts and Mitigation Measures*, summarizes the environmental impacts of the Project and recommended mitigation measures that, if adopted, would avoid or substantially reduce potential significant impacts of the Project, as well as applicable LSPGC APMs and PG&E BMPs and/or FPs for each environmental impact. The analysis of each Project impact is provided on a resource-by-resource basis in Chapter 3 of this Draft EIR. The draft MMCRP included in Chapter 5 of this Draft EIR will be updated if needed to reflect the CPUC's decision on the Project, including any revisions to the mitigation measures that must be implemented if the Project is approved.

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
Aesthetics				
Impact 3.1-1: The Project would not conflict with applicable zoning and other regulations governing scenic quality in the area.	APM BIO-1: Restoration of Disturbed Areas APM TRA-3: Repair Infrastructure	No measure required.	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.	APM BIO-10: Outdoor Lighting Measures	No measure required.	Mitigation Measure 3.1-2: Minimize Fugitive Light from Temporary Sources Used for Construction	LSM
Air Quality				
Impact 3.3-1: The Project would conflict with or obstruct implementation of the applicable air quality plan.	No applicable measure proposed.	No applicable measure proposed.	Mitigation Measure 3.3-2a: Construction Fleet Minimum Requirements and Tracking – Tier 4 Final Emissions Controls Mitigation Measure 3.3-2b: Use Best Management Practices for Construction-Related Fugitive Dust Emissions	LSM
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.	APM AQ-1: Construction Fleet Minimum Requirements and Tracking APM AQ-2: Dust Control Best Management Practices	PG&E BMP AQ-4: Tier 4 Construction Equipment	Mitigation Measure 3.3-2a: Construction Fleet Minimum Requirements and Tracking – Tier 4 Final Emissions Controls Mitigation Measure 3.3-2b: Use Best Management Practices for Construction-Related Fugitive Dust Emissions	SU
Impact 3.3-3: The Project would not expose sensitive receptors to substantial pollutant concentrations.	No measure required.	No measure required.	No measure required.	SU
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.	No measure required.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
Biological Resources				
Impact 3.4-1: 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	APM BIO-1: Restoration of Disturbed Areas APM BIO-2: Rare Plant Surveys 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: Salt Marsh Harvest Mouse Surveys APM BIO-8: Excavation Wildlife Safety Best Management Practices APM BIO-9: Worker Environmental Awareness (WEAP) Training APM BIO-10: Outdoor Lighting Measures APM BIO-11: Special-status Bird Surveys APM BIO-12: Nesting Bird Protection Measures APM BIO-13: Raptor Surveys APM BIO-14: Golden Eagle Protection APM BIO-15: Nesting Bird Surveys APM BIO-16: Special-Status Invertebrate Surveys APM BIO-17: Wetland, Vernal Pool, and Waterway Construction Timing Restrictions APM BIO-18: Special-status Amphibian Surveys APM BIO-19: Wetland and Aquatic Resources Delineations	PG&E BMP BIO-1: Burrowing Owl PG&E BMP BIO-2: Nesting Birds PG&E FP-1: Worker training PG&E FP-2: Park outside sensitive areas PG&E FP-3: Use existing access roads PG&E FP-4: Minimize impacts on biological resources PG&E FP-6: Inspect pipes and culverts for species PG&E FP-7: 15 mph speed limit PG&E FP-8: No fires, litter, or pets PG&E FP-10: Minimize activity footprint and time spent at a work location PG&E FP-11: Erosion and sediment control BMPs PG&E FP-12: Contain and cover stockpile soil PG&E FP-14: Revegetate with “weed free” seed mix PG&E FP-15: Refuel more than 250 feet from vernal pools and 100 feet from wetlands, streams, or waterways PG&E FP-16: 250 feet buffer from vernal pools and 50 feet from wetlands, ponds, or riparian areas	Mitigation Measure 3.1-2: Minimize Fugitive Light from Temporary Sources Used for Construction Mitigation Measure 3.4-1a: Avoid Impacts to Rare Plants Mitigation Measure 3.4-1b: Habitat Restoration and Monitoring Mitigation Measure 3.4-1c: Frac-out Plan Mitigation Measure 3.4-1d: Protection of Special-status Wildlife Mitigation Measure 3.4-1e: Construction Worker Environmental Awareness Training Program (WEAP)	LSM
Impact 3.4-2: The Project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	APM BIO-1: Restoration of Disturbed Areas APM BIO-4: Sensitive Area Demarcation APM BIO-19: Wetland and Aquatic Resources Delineations	No measure required.	Mitigation Measure 3.4-1b: Habitat Restoration and Monitoring Mitigation Measure 3.4-1d: Protection of Special-status Wildlife	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
Impact 3.4-3: The Project would have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	APM BIO-1: Restoration of Disturbed Areas APM BIO-4: Sensitive Area Demarcation APM BIO-19: Wetland and Aquatic Resources Delineations	PG&E FP-1: Worker training PG&E FP-14: Revegetate with "weed free" seed mix PG&E FP-15: Refuel more than 250 feet from vernal pools and 100 feet from wetlands, streams, or waterways PG&E FP-16: 250 feet buffer from vernal pools and 50 feet from wetlands, ponds, or riparian areas	Mitigation Measure 3.4-1b: Habitat Restoration and Monitoring	LSM
Impact 3.4-4: 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.	APM BIO-1: Restoration of Disturbed Areas APM BIO-4: Sensitive Area Demarcation APM BIO-6: Vehicle Speed Limits APM BIO-9: Worker Environmental Awareness (WEAP) Training APM BIO-10: Outdoor Lighting Measures APM BIO-17: Wetland, Vernal Pool, and Waterway Construction Timing Restrictions	PG&E BMP BIO-2: Nesting Birds PG&E FP-1: Worker training PG&E FP-2: Park outside sensitive areas PG&E FP-3: Use existing access roads PG&E FP-4: Minimize impacts on biological resources PG&E FP-6: Inspect pipes and culverts for species PG&E FP-10: Minimize activity footprint and time spent at a work location PG&E FP-11: Erosion and sediment control BMPs PG&E FP-12: Contain and cover stockpile soil PG&E FP-14: Revegetate with "weed free" seed mix PG&E FP-15: Refuel more than 250 feet from vernal pools and 100 feet from wetlands, streams, or waterways PG&E FP-16: 250 feet buffer from vernal pools and 50 feet from wetlands, ponds, or riparian areas	Mitigation Measure 3.1-2: Minimize Fugitive Light from Temporary Sources Used for Construction Mitigation Measure 3.4-1b: Habitat Restoration and Monitoring Mitigation Measure 3.4-1c: Frac-out Plan Mitigation Measure 3.4-1d: Protection of Special-status Wildlife Mitigation Measure 3.4-1e: Construction Worker Environmental Awareness Training Program (WEAP) Mitigation Measure 3.4-2: Habitat Restoration and Monitoring	LSM
Impact 3.4-5: Project construction would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	No applicable measure proposed.	No applicable measure proposed.	Mitigation Measure 3.4-5: Compliance with Local Tree Ordinances	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
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.	No measure required.	PG&E BMP BIO-2: Nesting Birds PG&E FP-1: Worker training PG&E FP-2: Park outside sensitive areas PG&E FP-3: Use existing access roads PG&E FP-4: Minimize impacts on biological resources PG&E FP-5: Notify conservation landowner PG&E FP-6: Inspect pipes and culverts for species PG&E FP-7: 15 mph speed limit PG&E FP-8: No fires, litter, or pets PG&E FP-9: Fire safety measures PG&E FP-10: Minimize activity footprint and time spent at a work location PG&E FP-11: Erosion and sediment control BMPs PG&E FP-12: Contain and cover stockpile soil PG&E FP-14: Revegetate with “weed free” seed mix PG&E FP-15: Refuel more than 250 feet from vernal pools and 100 feet from wetlands, streams, or waterways PG&E FP-16: 250 feet buffer from vernal pools and 50 feet from wetlands, ponds, or riparian areas	No measure required.	LTS
Impact 3.4-7: The Project would create a substantial collision or electrocution risk for birds or bats.	APM BIO-9: Worker Environmental Awareness (WEAP) Training	PG&E BMP BIO-2: Nesting Birds PG&E FP-1: Worker training	Mitigation Measure 3.4-1e: Construction Worker Environmental Awareness Training Program (WEAP)	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
Cultural Resources				
Impact 3.5-1: The Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	APM CUL-1: Worker Environmental Awareness Program (WEAP) Training APM CUL-2: Archaeological and Native American Monitoring APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources APM CUL-4: Cultural Resources Inventory	PG&E BMP CULT-1: Worker Awareness Training PG&E BMP CULT-2: Inadvertent Discovery	Mitigation Measure 3.5-1: Archaeological Monitoring Plan	LSM
Impact 3.5-2: The Project would not disturb any human remains, including those interred outside of dedicated cemeteries.	APM CUL-1: Worker Environmental Awareness Program (WEAP) Training APM CUL-2: Archaeological and Native American Monitoring APM CUL-5: Unanticipated Discovery of Human Remains	PG&E BMP CULT-1: Worker Awareness Training PG&E BMP CULT-3: Human Remains	Mitigation Measure 3.5-1: Archaeological Monitoring Plan	LSM
Energy				
Impact 3.6-1: The Project would result in consumption of energy resources during Project construction or operation.	No measure required.	PG&E BMP AQ-1: Vehicle Idling	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.	APM GEO-1: Geotechnical Studies and Geologic Hazard Reduction Measures	No measure required.	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.	APM GEO-1: Geotechnical Studies and Geologic Hazard Reduction Measures	No measure required.	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.	APM GEO-1: Geotechnical Studies and Geologic Hazard Reduction Measures	No measure required.	No measure required.	LTS
Impact 3.7-2: Project construction would not result in substantial soil erosion or the loss of topsoil.	APM GEO-1: Geotechnical Studies and Geologic Hazard Reduction Measures	No measure required.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
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.	APM GEO-1: Geotechnical Studies and Geologic Hazard Reduction Measures	No measure required.	No measure required.	LTS
Impact 3.7-4: The Project would not be located on expansive soil creating substantial direct or indirect risks to life or property.	APM GEO-1: Geotechnical Studies and Geologic Hazard Reduction Measures	No measure required.	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.	APM PALEO-1: Paleontological Mitigation Monitoring Plan (PRMMP) APM PALEO-2: Paleontological Resources Findings	PG&E BMP PALEO-1: Unanticipated Paleontological Discoveries	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.	PG&E BMP AQ-1: Vehicle Idling	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.	No measure required.	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.	APM HAZ-1: Site-Specific Spill Prevention, Control, and Countermeasure Plan APM HAZ-2: Hazardous Materials Management Plan	PG&E BMP HAZ-2: Hazardous Materials Business Plan (HMBP) PG&E BMP HAZ-3: Hazardous Waste Management PG&E BMP HAZ-7: Spill Prevention, Control, and Countermeasure (SPCC) Plan	Mitigation Measure 3.9-1a: Pre-Construction Hazardous Materials Assessment Mitigation Measure 3.9-1b: Health and Safety Plan Mitigation Measure 3.9-1c: Soil and Groundwater Management Plan	LSM
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.	APM HAZ-1: Site-Specific Spill Prevention, Control, and Countermeasure Plan APM HAZ-2: Hazardous Materials Management Plan	No measure required.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
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.	APM HAZ-2: Hazardous Materials Management Plan APM HAZ-3: Compliance with the Covenant to Restrict Use of Property APM HAZ-4: Compliance with the Covenant and Agreement for Environmental Restriction	PG&E BMP HAZ-3: Hazardous Waste Management	Mitigation Measure 3.9-1a: Pre-Construction Hazardous Materials Assessment Mitigation Measure 3.9-1b: Health and Safety Plan Mitigation Measure 3.9-1c: Soil and Groundwater Management Plan	LSM
Impact 3.9-4: Project construction would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	APM TRA-1: Traffic Control Plan	No measure required.	Mitigation Measure 3.17-2a, Implement Coordinated Traffic Control Plan	LSM
Impact 3.9-5: 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.	No measure required.	No measure required.	LTS
Impact 3.9-6: The Project would not create a significant hazard to the public or environment through the transport of heavy materials using helicopters.	No measure required.	No measure required.	No measure required.	LTS
Impact 3.9-7: The Project would not expose workers or the public to excessive shock hazards.	No measure required.	No measure required.	No measure required.	LTS
Hydrology and Water Quality				
Impact 3.10-1: Construction of the Project could violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	APM WQ-1: Groundwater Dewatering and Discharge Measures APM BIO-17: Wetlands, Vernal Pool, and Waterway Construction Timing Restrictions	PG&E FP-11: Erosion and sediment control BMPs PG&E FP-12: Contain and cover stockpile soil	Mitigation Measure 3.4-1c: Frac-out Plan	LSM
Impact 3.10-2: Construction of 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.	No measure required.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
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.	No measure required.	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.	APM HAZ-1: Site-Specific Spill Prevention, Control, and Countermeasure Plan APM HAZ-2: Hazardous Materials Management Plan APM HAZ-3: Compliance with the Covenant to Restrict Use of Property (CISCO Systems Site 6/Syntax Court Disposal Site) APM HAZ-4: Compliance with the Covenant and Agreement for Environmental Restriction (South Bay Asbestos Area)	No measure required.	Mitigation Measure 3.9-1a: Pre-Construction Hazardous Materials Assessment Mitigation Measure 3.9-1b: Health and Safety Plan Mitigation Measure 3.9-1c: Soil and Groundwater Management Plan	LSM
Impact 3.10-5: The Project would be located in flood hazard, tsunami, or seiche zones, and risks release of pollutants due to Project inundation.	APM HAZ-1: Site-Specific Spill Prevention, Control, and Countermeasure Plan APM HAZ-2: Hazardous Materials Management Plan APM HAZ-3: Compliance with the Covenant to Restrict Use of Property (CISCO Systems Site 6/Syntax Court Disposal Site) APM HAZ-4: Compliance with the Covenant and Agreement for Environmental Restriction (South Bay Asbestos Area)	PG&E FP-15: Refuel more than 250 feet from vernal pools and 100 feet from wetlands, streams, or waterways PG&E FP-16: 250 feet buffer from vernal pools and 50 feet from wetlands, ponds, or riparian areas	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.	APM WQ-1: Groundwater Dewatering and Discharge Measures	No measure required.	Mitigation Measure 3.4-1c: Frac-out Plan	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
Land Use and Planning				
Impact 3.11-1: Project construction would not physically divide an established community.	APM TRA-1: Traffic Control Plan	No measure required.	Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan	LSM
Noise				
Impact 3.13-1: The Project would not 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.	No measure required.	No measure required.	No measure required.	LTS
Impact 3.13-2: The Project would not generate excessive groundborne vibration or groundborne noise levels.	No measure required.	No measure required.	No measure required.	LTS
Impact 3.13-3: The Project would not expose people residing or working in the Project area to excessive noise levels.	No measure required.	No measure required.	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.	No measure required.	No measure required.	LTS
Public Services				
Impact 3.15-1: 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 and police protection.	APM TRA-1: Traffic Control Plan	No measure required.	Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
Recreation				
Impact 3.16-1: 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.	APM TRA-3: Repair Infrastructure	No measure required.	Mitigation Measure 3.17-2b: Infrastructure Repair Reporting	LSM
Impact 3.16-2: The Project would temporarily reduce or prevent access to a designated recreation facility or area.	APM REC-1: Trail Management Plan APM TRA-1: Traffic Control Plan APM TRA-3: Repair Infrastructure	No measure required.	Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan Mitigation Measure 3.17-2b: Infrastructure Repair Reporting	LSM
Impact 3.16-3: The Project 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.	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-9: Worker Environmental Awareness Program (WEAP) Training APM BIO-10: Outdoor Lighting Measures APM BIO-11: Special-Status Bird Surveys APM BIO-12: Nesting Bird Protection Measures APM BIO-13: Raptor Surveys APM BIO-14: Golden Eagle Protection APM BIO-15: Nesting Bird Surveys APM CUL-1: Worker Environmental Awareness Program (WEAP) Training APM CUL-2: Archaeological and Native American Monitoring APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources APM CUL-4: Cultural Resources Inventory APM CUL-5: Unanticipated Discovery of Human Remains	No measure required.	Mitigation Measure 3.1-2: Minimize Fugitive Light from Temporary Sources Used for Construction Mitigation Measure 3.4-1b: Habitat Restoration and Monitoring Mitigation Measure 3.4-1d: Protection of Special-status Wildlife Mitigation Measure 3.4-5: Compliance with Local Tree Ordinances Mitigation Measure 3.5-1: Archaeological Monitoring Plan	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	**PG&E BMPs or FPs**		
	APM GEO-1: Geotechnical Studies and Geologic Hazard Reduction Measures APM PALEO-1: Paleontological Mitigation Monitoring Plan (PRMMP) APM PALEO-2: Paleontological Resources Findings APM TRA-3: Repair Infrastructure			
Impact 3.16-4: The Project would not damage recreational trails or facilities.	APM BIO-1: Restoration of Disturbed Areas APM REC-1: Trail Management Plan APM TRA-3: Repair Infrastructure	No measure required.	Mitigation Measure 3.4-1b: Habitat Restoration and Monitoring Mitigation Measure 3.17-2b: Infrastructure Repair Reporting	LSM
Transportation				
Impact 3.17-1: Project operation and maintenance would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b).	No measure required.	No measure required.	No measure required.	LTS
Impact 3.17-2: The Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections).	APM TRA-1: Traffic Control Plan APM TRA-3: Repair Infrastructure	No measure required.	Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan Mitigation Measure 3.17-2b: Infrastructure Repair Reporting	LSM
Impact 3.17-3: Project construction would not result in inadequate emergency access.	APM TRA-1: Traffic Control Plan	No measure required.	Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan	LSM
Impact 3.17-4: The Project would not create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations.	APM TRA-1: Traffic Control Plan APM TRA-3: Repair Infrastructure	No measure required.	Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan Mitigation Measure 3.17-2b: Infrastructure Repair Reporting	LSM
Impact 3.17-5: The Project would not interfere with walking or bicycling accessibility.	APM TRA-1: Traffic Control Plan	No measure required.	Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan	LSM
Impact 3.17-6: Construction of the Project would not substantially delay public transit.	APM TRA-2: Coordinate Bus Stop Closures	No measure required.	Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan	LSM

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
Tribal Cultural Resources				
Impact 3.18-1: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, 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 listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources. Code Section 5020.1(k).	APM CUL-1: Worker Environmental Awareness Program (WEAP) Training APM CUL-2: Archaeological and Native American Monitoring APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources APM CUL-4: Cultural Resources Inventory APM CUL-5: Unanticipated Discovery of Human Remains APM TCR-1: WEAP Training APM TCR-2: Native American Monitoring	PG&E BMP CULT-1: Worker Awareness Training PG&E BMP CULT-2: Inadvertent Discovery PG&E BMP CULT-3: Human Remains	Mitigation Measure 3.5-1: Archaeological Monitoring Plan	LSM
Impact 3.18-2: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.	APM CUL-1: Worker Environmental Awareness Program (WEAP) Training APM CUL-2: Archaeological and Native American Monitoring APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources APM CUL-4: Cultural Resources Inventory APM CUL-5: Unanticipated Discovery of Human Remains APM TCR-1: WEAP Training APM TCR-2: Native American Monitoring	PG&E BMP CULT-1: Worker Awareness Training PG&E BMP CULT-2: Inadvertent Discovery PG&E BMP CULT-3: Human Remains	Mitigation Measure 3.5-1: Archaeological Monitoring Plan	LSM
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.	APM UTIL-1: Coordination with Utilities	No measure required.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
Impact 3.19-2: Project construction 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.	No measure required.	No measure required.	LTS
Impact 3.19-3: Project construction 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.	No measure required.	No measure required.	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.	No measure required.	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.	APM UTIL-1: Coordination with Utilities APM HAZ-5: Final Induction Study and Utility Coordination	No measure required.	Mitigation Measure 3.19-5: Utility Coordination and Induction Study	LSM
Wildfire				
Impact 3.20-1: Project construction would not substantially impair an adopted emergency response plan or emergency evacuation plan.	APM TRA-1: Traffic Control Plan	No measure required.	Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan	LSM
Impact 3.20-2: 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.	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.	No measure required.	LTS

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Environmental Measures Implemented as part of the Project		CEQA Mitigation Measures	Significance with Measures Implemented
	Applicant-proposed measures	PG&E BMPs or FPs		
Impact 3.20-3: The Project would not 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.	No measure required.	No measure required.	LTS
Impact 3.20-4: 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 measure required.	No measure required.	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 4.1, *Alternatives Screening and Development Process*:

- HVDC Alternative
- Energy Storage Alternative
- PG&E Interconnection Alternative
- Gold Street Technology Center Alternative

ES.6.2 Alternatives Considered in the EIR

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

- The CEQA-required No Project Alternative is described in Section 4.6.1 of Chapter 4, Alternatives. It reflects existing conditions at the time the notice of preparation of this EIR was published (July 29, 2024), as well as what reasonably would be expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services.
- Additional Underground Alternative (Alternative 1)
- Transmission Line Alternative (Alternative 2)

ES.6.3 Comparison of Alternatives

Table 4-4, *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.

TABLE ES-4
COMPARISON OF IMPACTS

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

NOTE: Project = Power the South Bay Project

SOURCE: Data compiled by Environmental Science Associates in 2025

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 non-renewable 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 draft stage, Alternative 1 has been determined to be preferred because, relative to the Project, it would avoid potentially significant impacts of the Project on biological resources and aesthetics. However, Alternative 1 would potentially result in greater environmental impacts than the Project related to hazards or hazardous materials, as well as some impacts related to air quality and greenhouse gas emissions. By comparison, Alternative

2 would not avoid any of the significant impacts of the Project but would reduce impacts in three resource areas: Aesthetics, Biological Resources, and Recreation.

Alternative 1's increased ground disturbance associated with undergrounding techniques could, as discussed above, result in greater impacts from exposure to hazardous wastes as construction activities along the RWF drying beds risk disturbing hazardous biosolids. Likewise, underground transmission line construction activities, which require more material handling and equipment use compared to overhead construction activities and thus generate higher construction-related emissions, would result in greater impacts to air quality associated with Alternative 1 than the Project as proposed.

It is important to note that Alternative 1's impacts associated with hazards and air quality are short-term impacts which could adversely affect the environment only during construction activities, while the impacts avoided or reduced by implementation of Alternative 1—those related to biological resources and aesthetics—are long-term impacts which would persist into the Project's operational phase. Therefore, though Alternative 1 would still result in impacts that require mitigation or are significant and unavoidable in the near term, Alternative 1 is still considered the environmentally superior alternative for its tendency to reduce impacts caused by Project operations.

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 Alternative 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 B to this Draft EIR. Issues identified as potential areas of controversy relate to Aesthetics, Biological Resources, Hazards and Hazardous Materials, Noise and Vibration, Recreation, Transportation, and Cumulative Impacts.

ES.9 Issues to be Resolved

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify issues to be resolved, which include 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 air quality outweighs the need for the Project and, if so, prepare a statement of overriding considerations.

ES.10 References

CDOF (California Department of Finance). 2024. City/County Population and Housing Estimates. Available: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2024/. Accessed October 28, 2024.

EDD (Employment Development Department), 2025a. Labor Market Information Resources and Data, Alameda County Profile. Available at: https://labormarketinfo.edd.ca.gov/geography/alameda-county.html. Accessed May 22, 2025.

EDD (Employment Development Department), 2025b. Labor Market Information Resources and Data, Santa Clara County Profile. Available at: https://labormarketinfo.edd.ca.gov/geography/santaclara-county.html. Accessed May 22, 2025.

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CHAPTER 1
Introduction

1.1 Purpose of This Document

LS Power Grid California, LLC (LSPGC), in its California Public Utilities Commission (CPUC) application (A.24-05-014) filed on May 17, 2024, requested a certificate of public convenience and necessity (CPCN) for the proposed Power the South Bay Project (Project) in Alameda and Santa Clara counties. LSPGC's application for a CPCN included a Proponent's Environmental Assessment (PEA), which LSPGC prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure.

On November 12, 2024, almost six months after LSPGC filed its initial application with the CPUC, the California Independent System Operator (CAISO) Board of Governors approved a modified version of the Project.[1] On December 30, 2024, LSPGC filed a motion to amend the application based on the CAISO-approved changes. The CPUC administrative law judge granted the motion on February 10, 2025, and LSPGC filed an amended application on February 28, 2025. The CPUC deemed the amended application complete on March 26, 2025.

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; and Utilities and Service Systems; and Wildfire.

[1] The original Project scope approved by CAISO, called the "Newark to NRS HVDC Project," included the construction of two new high-voltage direct current (HVDC) terminals and a 320 kV direct current (DC) transmission line connecting the two new HVDC terminals. The modified Project no longer includes the HVDC terminals or 320 kV DC transmission line. Instead, the Project now includes a 230 kV alternating current (AC) transmission line.

1.2 Project Overview

The Project was approved by CAISO with the objective of ensuring the reliability of the CAISO-controlled grid.[2] This objective would be accomplished by constructing and operating a new 230 kV alternating current (AC) transmission line that would extend approximately 12 miles to connect the existing Pacific Gas & Electric (PG&E) Newark 230 kV Substation and the existing Silicon Valley Power (SVP) Northern Receiving Station (NRS) 230 kV Substation. To accommodate the new facilities, PG&E and SVP would also modify existing infrastructure at each existing substation.

The Project area is located in the cities of Fremont, Milpitas, San José, and Santa Clara, within Alameda and Santa Clara counties, California. **Figure 1-1**, *Project Location*, presents an overview of the Project location. Approximately 5.9 miles of the alignment would be located in the City of Fremont, 0.2 mile in the City of Milpitas, 4.7 miles in the City of San José, and 1.2 miles in the City of Santa Clara.

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 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 the purpose and objectives of the proposed Project.

1.3.1 Project Purpose

The Project's purpose is to strengthen the electrical grid in the Greater Bay Area, specifically within Alameda and Santa Clara counties (South Bay). The Project would:

- Support the provision of safe, reliable, and adequate electrical service to the PG&E and SVP service territories and throughout the South Bay area of the CAISO-controlled grid;
- Reliably serve the long-term forecasted electricity demand in the San José area, which is expected to increase substantially, mostly due to new data center loads;
- Provide a suitable foundation for future grid upgrades expected to be needed to serve the increasing load in the area; and
- Facilitate the importation and use of cost-effective renewable energy to fulfill the State of California's clean energy goals by ensuring reliable operation of the grid.

[2] The CAISO is a nonprofit Independent System Operator that serves California, specifically managing transmission systems that deliver wholesale electricity to local utilities for distribution to customers and overseeing transmission planning to maximize efficiency and reliability through regional grid reliability requirements.

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SOURCE: KP Environmental, 2025

Power the South Bay Project

Figure 1-1
Project Location

1.3.2 Objectives

LSPGC has identified the objectives for the Project in its CPCN application (LSPGC 2025), as follows[3]:

- Meet CAISO's reliability-driven need by addressing multiple near-, mid-, and long-term reliability issues in the existing San José 115 kV system.
- Meet the technical specifications set forth by CAISO.
- Facilitate the deliverability of energy from existing and proposed renewable generation projects to the Greater Bay Area and corresponding progress toward achieving California's Renewable 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.

On November 12, 2024, the CAISO Board of Governors approved a modification to the scope of the Power the South Bay Project. This decision is discussed in greater detail in Section 2.1, *Introduction*. 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 contain a statement briefly describing the intended uses of the EIR. The CEQA Guidelines indicate that the EIR should identify the ways in which the Lead Agency and any responsible agencies would use this document in their approval or permitting processes. The following discussion summarizes the roles of the agencies and the intended uses of the EIR.

1.4.1 CPUC

Pursuant to Article XII of the Constitution of the State of California, the CPUC is charged with the regulation of investor-owned public utilities, including LSPGC. The CPUC is the Lead Agency for CEQA compliance in evaluation of LSPGC's Project and, accordingly, 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 construction, operation, and maintenance of 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

[3] LSPGC also included the following as a project objective: "Design and construct the Project in conformance with LSPGC's standards, the National Electrical Safety Code, and other applicable national and state codes and regulations." However, LSPGC would be required do this in any case; therefore, this project objective was not brought forward for purposes of this environmental analysis.

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 their decisions regarding 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, California Department of Fish and Wildlife, the San Francisco Bay Regional Water Quality Control Board, California State Lands Commission, the State Office of Historic Preservation, and San Francisco Bay Conservation and Development Commission 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. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), and the Federal Aviation Administration (FAA). These federal agencies will make their own findings under their agency-specific procedures under the National Environmental Policy Act, which can, in part, rely on the information disclosed in this EIR.

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 (GO 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.[4]

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.*

[4] 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.

TABLE 1-1
ANTICIPATED PERMITS AND APPROVALS[1]

Agency	Permit/Approvals[2]	Permit Trigger	Application Process	Timing
City of Fremont	Traffic control plan	Any construction within public ROW.	Submit application and TCP to City of Fremont Transportation Engineering Division for review and approval.	Before the start of construction requiring traffic control.
City of Fremont	Encroachment permit	Construction within City of Fremont roads or ROWs.	Submit application to City of Fremont for review and approval.	Before the start of construction within City of Fremont roads or ROW.
City of San José	Traffic control plan	Any construction within public ROW.	Submit application and TCP to 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 of San José roads or ROWs.	Submit application to City of San José for review and approval.	Before the start of construction within City of San José roads or ROW.
City of Santa Clara	Traffic control plan	Any construction within public ROW.	Submit application and TCP to City of Santa Clara for review and approval.	Before the start of construction requiring traffic control.
City of Santa Clara	Encroachment permit	Construction within City of Santa Clara roads or ROWs.	Submit application to City of Santa Clara for review and approval.	Before the start of construction within City of Santa Clara roads or ROW.
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.
State Water Resources Control Board	CWA, National Pollutant Discharge Elimination System General Permit for Discharge of Construction Related Stormwater	SWPPP required 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.
California Department of Fish and Wildlife	Section 1602 Lake or Streambed Alteration Agreement	Potential impacts on CDFW jurisdictional water under Section 1602 of the California Fish and Game Code.	Submit application to CDFW for review and approval.	Before the start of construction within jurisdictional waters.
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.

TABLE 1-1
ANTICIPATED PERMITS AND APPROVALS[1]

Agency	Permit/Approvals[2]	Permit Trigger	Application Process	Timing
San Francisco Bay Conservation and Development Commission	Administrative permit	Construction within, over, or under BCDC jurisdiction	Submit application to BCDC for review and approval.	Before the start of construction within BCDC jurisdiction.
California Public Utilities Commission	California Public Utilities Code Section 1001 et seq. and CPUC General Order 131-E CPCN	Construction of transmission facilities governed by General Order 131-E.	Submit CPCN application and PEA to CPUC. CPUC would initiate CEQA process and make a proposed and final CPCN ruling.	Before the start of construction.
Regional Water Quality Control Board	CWA Section 401 water quality certification and/or Waste Discharge Requirement	Potential impacts on CWA jurisdictional waters.	Submit application to RWQCB for review and approval.	Before the start of construction within jurisdictional waters.
California State Lands Commission (CSLC)	Lease	Construction of transmission facilities on State owned property.	Submit application to CSLC for review and approval	Before the start of construction within CSLC owned property.
U.S. Army Corps of Engineers	CWA Section 404 Permit—Nationwide Permit	Potential cut or fill within CWA jurisdictional waters.	Submit Preconstruction Notification to USACE for review and approval.	Before the start of construction within jurisdictional waters.
U.S. Army Corps of Engineers	Section 408 Program (Rivers and Harbors Act of 1899)	Potential modification of USACE civil works projects (levees).	Submit application to USACE San Francisco District.	Before alteration of levees.
U.S. Army Corps of Engineers and California State Historic Preservation Office	National Historic Preservation Act Section 106 consultation	Federal Undertaking (USACE Section 404 and 408 permit processes).	USACE submits to SHPO for consultation.	Before issuance of USACE Section 404 or 408 permits.
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 biological assessment or HCP to USFWS for review and approval	Before the start of construction.
Federal Aviation Administration	Determination of No Hazard	Construction of overhead transmission line structures.	Submit application to FAA for review and approval.	Approximately 6 months 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 jack-and-bore.	Submit application to Union Pacific for review and approval.	Before the start of construction within or near Union Pacific ROW.

NOTES:

BCDC = San Francisco Bay Conservation and Development Commission; Caltrans = California Department of Transportation; CDFW = California Department of Fish and Wildlife; CEQA = California Environmental Quality Act; CPCN = Certificate of Public Convenience and Necessity; CPUC = California Public Utilities Commission; CWA = Clean Water Act; FAA = Federal Aviation Administration; HCP = habitat conservation plan; PEA = Proponent's Environmental Assessment; ROW = right-of-way; RWQCB = Regional Water Quality Control Board; SHPO = State Historic Preservation Office; State Water Board = State Water Resources Control Board; SWPPP = storm water pollution prevention plan; TCP = traffic control plan; USACE = U.S. Army Corps of Engineers; USFWS = U.S. Fish and Wildlife Service; Valley Water = Santa Clara Valley Water District

1. Permit requirements in this table apply only to LS Power Grid California and are separate from applicable permits for Pacific Gas and Electric Company and Silicon Valley Power upgrades.
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 Power the South Bay Project. In addition, some permits in this table may not be ultimately required.

SOURCE: LSPGC 2025

1.5 Public Review and Comment

Educational Outreach and Scoping

On July 29, 2024, the CPUC published and distributed a Notice of Preparation (NOP) to solicit input from federal, state, regional, and local agencies, and the public, to inform the scope and content to be considered in the EIR being prepared for the Project. The issuance of the NOP initiated a 32-day scoping period. A copy of the NOP was provided to the State Clearinghouse of the Governor's Office of Land Use and Climate Innovation (LCI)[5], which assigned State Clearinghouse Number 2024071095 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. The NOP was 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 two virtual public scoping meetings, which were held on Thursday, August 15, 2024.

To announce the release of the NOP and provide details about the public scoping meetings, the CPUC published a legal notice in the *Mercury News* and the *East Bay Times*, each a daily periodical in general circulation in the Project vicinity. The legal notice was published on July 29, 2024, in both newspapers. The meeting announcement and an electronic copy of the NOP were also posted on the CPUC's webpage established for the Project at: https://ia.cpuc.ca.gov/environment/info/esa/psb/index.html.

The NOP was posted in six libraries in the Project vicinity during the 32-day scoping period. It was posted from July 29 to August 30, 2024 at Newark Library, Milpitas Library, Alviso Branch Library (City of San José), Northside Branch Library (City of Santa Clara), Joyce Ellington Branch Library (City of San José), and Fremont Main Library. Pursuant to CEQA Guidelines § 15082, the NOP was also sent to the Alameda and Santa Clara county clerks.

The CPUC conducted two virtual scoping meetings on August 15, 2024. The meetings were held from 2:30 to 4:00 p.m. and from 6:30 to 8:00 p.m. Fifteen (15) people attended the afternoon meeting, and five (5) attended the evening meeting. Tommy Alexander of the CPUC, as well as Mike Manka, Dave Davis, Steven Johnson, and Vince Molina of Environmental Science Associates (ESA), consultant to the CPUC, hosted the meetings. Spanish translation services were also provided at these meetings.

During the meetings, 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 issue areas 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

[5] The agency was known as the Governor's Office of Planning and Research (OPR) from its creation in 1970 until it was renamed to the Governor's Office of Land Use and Climate Innovation (LCI) effective July 1, 2024.

addressed at the scoping meetings. Following the presentation, the public was provided with an opportunity to submit oral and/or written comments during each meeting.

No members of the public provided oral or written comments on the Project during the August 15, 2024 scoping meetings (i.e., no public comments were received in either the afternoon or the evening meeting). However, the CPUC received three comment letters during the scoping period from the Santa Clara Valley Water District (Valley Water), the California Department of Transportation, and the California Department of Fish and Wildlife. Outside the 32-day scoping period, a letter commenting on the Project was received from the San Francisco Public Utilities Commission.

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

Parallel to, and independent of, the formal scoping process, early tribal outreach and consultation were initiated. As of the release of this Draft EIR for public and agency review, the following tribes have responded to the CPUC to express interest in the Project: the Costanoan Rumsen Carmel Tribe, Confederated Villages of Lisjan Nation, Muwekma Ohlone Tribe of the San Francisco Bay Area, and Tamien Nation.

Public Comment on the Draft EIR

This Draft EIR is being circulated to local, regional, state, and federal agencies and to interested individuals who may wish to review and comment on the report. Appendix B includes a copy of the mailing list to which the Draft EIR and /or Notice of Availability have been 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 Project such that it may approve the 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 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 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 and alternatives, including the No Project Alternative. 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. Construction Equipment and Workforce Table

Appendix B. Scoping Report (including Mailing Lists and Certificates of Service)

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

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

Appendix E. Noise

Appendix F. Preliminary Induction Study

Appendix G. Draft Mitigation Monitoring, Reporting and Compliance Program

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 application (A.24-05-014) filed with the California Public Utilities Commission (CPUC) on May 17, 2024, requested a certificate of public convenience and necessity (CPCN) for the proposed Power the South Bay Project (Project) in Alameda and Santa Clara counties, California. LSPGC's application for a CPCN included a 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 initial CPCN application with the CPUC, the CAISO Board of Governors approved an update to its 2021-2022 transmission plan (i.e., CAISO-approved changes), which included a modified version of the Project.[1] On December 30, 2024, LSPGC filed a motion to amend the CPCN application based on the CAISO-approved changes. The CPUC's assigned administrative law judge (ALJ) granted the motion on February 10, 2025, and LSPGC filed an amended application on February 28, 2025. On March 26, 2025, the CPUC deemed the amended application complete. The following Project description reflects the CAISO-approved changes.

The Project primarily consists of a new 230-kilovolt (kV) alternating current (AC) transmission line that would be constructed and operated by LSPGC. That transmission line, referred to in this document as the *Newark to NRS 230 kV AC transmission line* or *transmission line*, would connect the existing Pacific Gas and Electric Company (PG&E) Newark 230 kV Substation to the existing Silicon Valley Power (SVP) Northern Receiving Station (NRS) 230 kV Substation.

The Project would also include modifications to the existing PG&E Newark 230 kV Substation and the existing SVP NRS 230 kV Substation, which would be necessary to interconnect LSPGC's new transmission line. These substation modifications would be constructed by PG&E and SVP, respectively, and each entity would continue to operate its own substation and equipment.

[1] The original Project scope approved by CAISO, called the "Newark to NRS HVDC Project", included the construction of two new high-voltage direct current (HVDC) terminals and a 320 kV direct current (DC) transmission line connecting the two new HVDC terminals.

The Project, for the purpose of this California Environmental Quality Act (CEQA) analysis, includes the components that would be constructed and operated by LSPGC and the modifications at the existing PG&E and SVP substations that would be constructed and operated by PG&E and SVP, respectively. The CPUC will use the information in this CEQA document to inform its decision whether to grant or deny the LSPGC application to construct and operate the LSPGC Power the South Bay Project. The modifications at the existing PG&E and SVP 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 SVP are not applicants. The PG&E interconnection 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 Location

The Project is proposed in the cities of Fremont, Milpitas, San José, and Santa Clara, within Alameda and Santa Clara counties, California, as shown in **Figure 2-1**, *Project Location*. The underground portions of the proposed Newark to NRS 230 kV AC transmission line would be located primarily along existing roadways,[3] such as Weber Road, Boyce Road, Cushing Parkway, Fremont Boulevard, McCarthy Boulevard, Los Esteros Road, Disk Drive, Nortech Parkway, Gold Street, and Lafayette Street, including an underground segment along the Cushing Parkway bridge.[4] The overhead portions of the transmission line would cross lands managed by the Santa Clara Valley Water District (SCVWD), the San José–Santa Clara Regional Wastewater Facility (RWF), and PG&E. **Figures 2-2a** through **2-2d**, *Project Transmission Alignment Map,* visualize the Project's alignment in greater detail, including both underground and overhead segments, and are discussed further below.

As shown in Figures 2-2a through 2-2d, the transmission line would exit the PG&E Newark 230 kV Substation overhead for a short segment and would transition underground within Weber Road, then would continue underground through Boyce Road, Cushing Parkway, Fremont Boulevard, and McCarthy Boulevard. The transmission line would then leave McCarthy Boulevard and

[2] LSPGC's application for a CPCN was initially filed and deemed complete in June 2024 when GO 131-D was in effect, therefore, LSPGC's portion of the Power the South Bay 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 subject to GO 131-E.

[3] Underground segments of the Project alignment would be located along public and private property outside of existing roadways, including a portion of Weber Road owned by PG&E, a portion of property owned by Santa Clara Valley Water District south of McCarthy Boulevard, and a portion on the RWF property before the alignment enters Los Esteros Road.

[4] LSPGC is also considering attaching this segment of the transmission line along the underside of Cushing Parkway bridge. However, the analysis presented in this document assumes the underground option along the bridge as a conservative approach to assessing the Project's impacts.

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SOURCE: KP Environmental, 2025

Power the South Bay Project

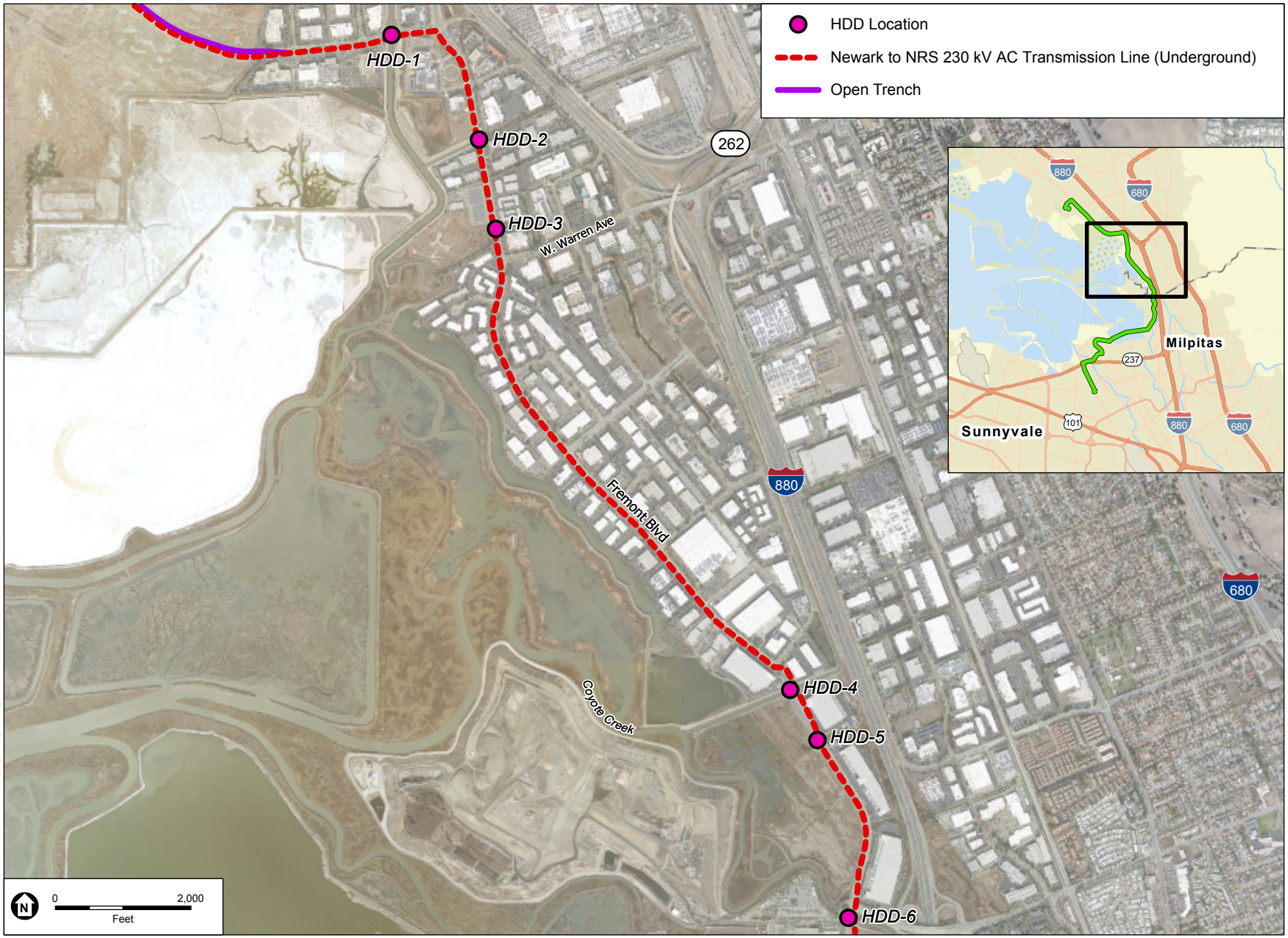
Figure 2-1
Project Location

SOURCE: KP Environmental, 2025

Power the South Bay Project

Figure 2-2a
Transmission Alignment Map

ESA



SOURCE: KP Environmental, 2025

Power the South Bay Project

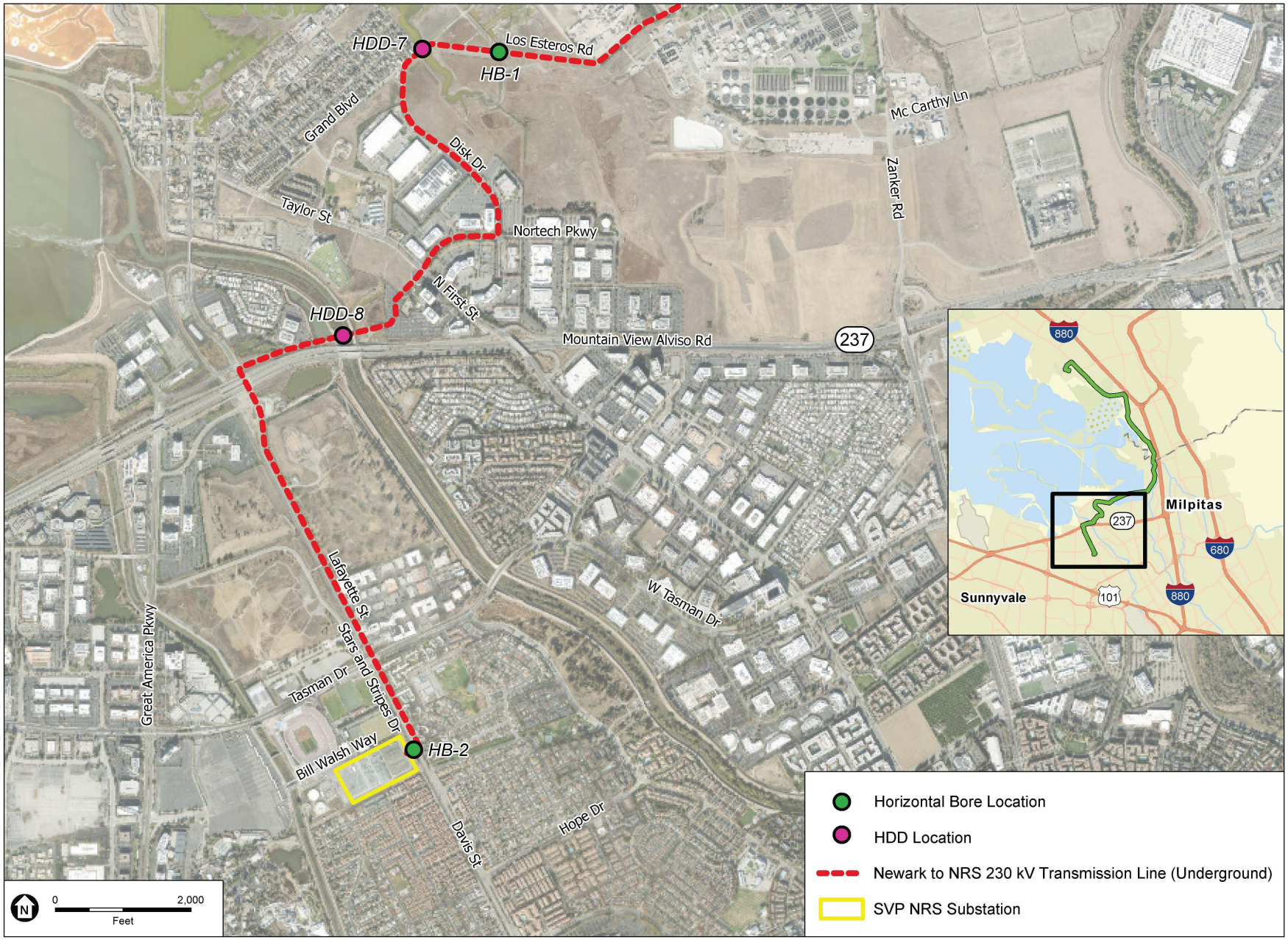
Figure 2-2b
Transmission Alignment Map

SOURCE: KP Environmental, 2025

Power the South Bay Project

Figure 2-2c
Transmission Alignment Map

ESA



SOURCE: KP Environmental, 2025

Power the South Bay Project

Figure 2-2d
Transmission Alignment Map

ESA

transition overhead toward Los Esteros Road, spanning existing wastewater drying ponds managed by the RWF (see Figure 2-2c). The transmission line would then transition back underground near Los Esteros Road and would continue underground for the remainder of the alignment. This underground segment would continue within Los Esteros Road, Disk Drive, and Nortech Parkway before leaving the public road right-of-way (ROW) and continuing onto private and public property, including an underground horizontal directional drilling (HDD) crossing of the Guadalupe River. The underground segment would then reenter public roads at Gold Street before proceeding into Lafayette Street and reaching the SVP NRS 230 kV Substation.

The proposed alignment would total approximately 12 miles. Approximately 5.9 miles of the alignment would be located in the city of Fremont, 0.2 mile in the city of Milpitas, 4.7 miles in the city of San José, and 1.2 miles in the city of Santa Clara.

2.3 Existing System

2.3.1 Existing Utility System

The Project is sited within an existing regional transmission system that provides electricity to the Greater San Francisco Bay Area (Greater Bay Area). The system primarily serves five counties, including Alameda and Santa Clara counties. 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 East Bay and South Bay areas, predominantly in the South Bay area.

The South Bay area, which includes Santa Clara County, receives power from the Los Esteros, Metcalf, Monta Vista, and Newark substations. 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 SVP's Donald Von Raesfeld Power Plant. The South Bay area also has key 500 kV and 230 kV interconnections to the Moss Landing and Tesla substations. The San José/Santa Clara area is generally served by the Newark 230/115 kV substation to the north and the Metcalf 500/230/115 kV substation the south.

2.3.1.1 PG&E and SVP Substations

The PG&E Newark 230 kV Substation is located in the city of Fremont, southwest of the intersection of Boyce Road and Weber Road. This 230/115 kV transmission substation occupies approximately 27.5 acres. A total of 30 overhead transmission lines and 10 overhead distribution lines are connected to the existing PG&E Newark 230 kV Substation., specifically, seven 230 kV transmission lines, 21 115 kV transmission lines, two 60 kV transmission lines, and 10 distribution lines.

The SVP NRS 230 kV Substation is located in the city of Santa Clara, south of the intersection of Tasman Drive and Lafayette Street. This 230/115/60 kV transmission substation occupies approximately 13.5 acres. Six overhead transmission lines and four overhead subtransmission lines are connected to the existing SVP NRS 230 kV Substation, specifically, one 230 kV transmission line, five 115 kV transmission lines, and four 60 kV subtransmission lines.

Existing distribution, subtransmission, and transmission structures range in height from 30 feet to 170 feet, with structure height generally increasing with higher voltage generally ranging from 12 kV to 230 kV. The components of both the PG&E Newark 230 kV and SVP NRS 230 kV substations are generally gray with a nonreflective finish.

2.3.2 Existing Rights-of-Way and Easements

LSPGC does not have any existing ROWs within the Project area. However, the Project would acquire all necessary ROWs, which could include various types of easements, permits, grants, and/or franchise rights of varying sizes and width. The specific width of necessary ROWs along the Project alignments would be refined during the final engineering process. Acquisition of land, ROWs, or easements is discussed further in Section 2.7, *Land Ownership, Rights-of-Way, and Easements*.

2.4 Project Overview

The Project was approved by CAISO with the objective of ensuring the reliability of the CAISO-controlled grid.[5] This objective would be accomplished by constructing and operating a new 230 kV AC transmission line that would connect the existing PG&E Newark 230 kV Substation and the existing SVP NRS 230 kV Substation, as well as other associated infrastructure. 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.

Figure 2-1, *Project Location*, presents an overview of the location of the Project's proposed transmission line. The Project would include the major components described briefly in Sections 2.4.1 and 2.4.2 and in greater detail in Sections 2.6.1 and 2.6.2. The Project alignment is illustrated in Figures 2-2a through 2-2d and described at length in Section 2.6.

2.4.1 Newark to NRS 230 kV Alternating Current Transmission Line

As stated above, the Project would involve construction of a new approximately 12-mile transmission line, alternately overhead and underground, and would connect the existing PG&E Newark 230 kV Substation to the existing SVP NRS 230 kV Substation. LSPGC would be responsible for the majority of the Project from pole location Newark-NRS (NN)-3 on PG&E property immediately outside of the PG&E Newark 230 kV Substation to an overhead structure within the SVP NRS 230 kV Substation, as shown in **Figure 2-3a**, *LSPGC Scope of Work*.

[5] CAISO is a nonprofit Independent System Operator that serves California, specifically managing transmission systems that deliver wholesale electricity to local utilities for distribution to customers and overseeing transmission planning to maximize efficiency and reliability through regional grid reliability requirements.

SOURCE: KP Environmental, 2025

Power the South Bay Project

Figure 2-3a
LSPGC Scope of Work

2.4.2 Modifications to Existing Substations

The Project would connect the existing PG&E Newark 230 kV and SVP NRS 230 kV substations via the proposed transmission line. To accommodate the new transmission line, PG&E and SVP would modify existing facilities at each existing substation. PG&E would be responsible for the portion of the Project from pole location NN-3 on its property into an open 230 kV line position within the PG&E Newark 230 kV Substation, as shown in **Figure 2-3b**, *PG&E Scope of Work*. SVP would be responsible for the installation of an overhead structure within its NRS 230 kV Substation, the Project's transmission line to the overhead structure, CAISO metering, and jumpers between the line terminations and through the CAISO meters (see **Figure 2-3c**, *SVP Scope of Work).*

2.5 Project Objectives

Transmission planning studies prepared by CAISO in the 2021–2022 planning cycle identified a long-term load forecast of approximately 2,100 megawatts in the San José area, including a significant load increase of approximately 500 megawatts in the Santa Clara area. In the 2024-2025 planning cycle, CAISO further evaluated the growing needs of the Greater Bay Area and identified an even larger increase in the long-term load forecast. This load increase would lead to reliability concerns consisting of thermal overloads such as multiple near-term and long-term overloads in the San José area's 115 kV system. The San José/Santa Clara area is served primarily from the existing PG&E Newark 230 kV and Metcalf substations; however, the bulk of the power flows from the Newark side due to the electrical proximity of the area load to the existing PG&E Newark 230 kV Substation. Therefore, there is an existing imbalance between the two sources and overloads on the San José area 115 kV system.

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. LSPGC's specific Project objectives are as follows:

- Meet CAISO's reliability-driven need by addressing multiple near-, mid-, and long-term reliability issues in the existing San José 115 kV system.
- Meet the technical specifications set forth by CAISO.
- Facilitate the deliverability of energy from existing and proposed renewable generation projects to the Greater Bay Area and corresponding progress toward achieving California's Renewable 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 (NERC), Western Electricity Coordinating Council (WECC), 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.

SOURCE: ESA, 2025; Google Earth, 2025

Power the South Bay Project

Figure 2-3b
PG&E Scope of Work

2019/D201900517.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: ESA, 2025; Google Earth, 2025

Power the South Bay Project

Figure 2-3c
SVP Scope of Work

ESA

2.6 Project Components

The major structural systems proposed as part of the Project include the construction, operation, and maintenance of the following primary components:

- Construction and operation of the Newark to NRS 230 kV AC transmission line (approximately 12 miles long), rated at approximately 1,000 megavolt-amperes.
- Modifications to the existing PG&E Newark 230 kV Substation.
- Modifications to the existing SVP NRS 230 kV Substation.

2.6.1 Newark to NRS 230 kV Alternating Current Transmission Line

To connect the existing PG&E Newark 230 kV and SVP NRS 230 kV substations, approximately 12 miles of AC transmission line, alternating between overhead and underground, would be installed throughout the Project alignment, including the installation and/or modification of overhead transmission structures. The characteristics of the overhead and underground segments are discussed further below. **Table 2-1**, *Proposed Transmission Line Lengths*, shows the approximate lengths of the transmission line segments, categorized by overhead and underground segment lengths.

TABLE 2-1
PROPOSED TRANSMISSION LINE LENGTHS

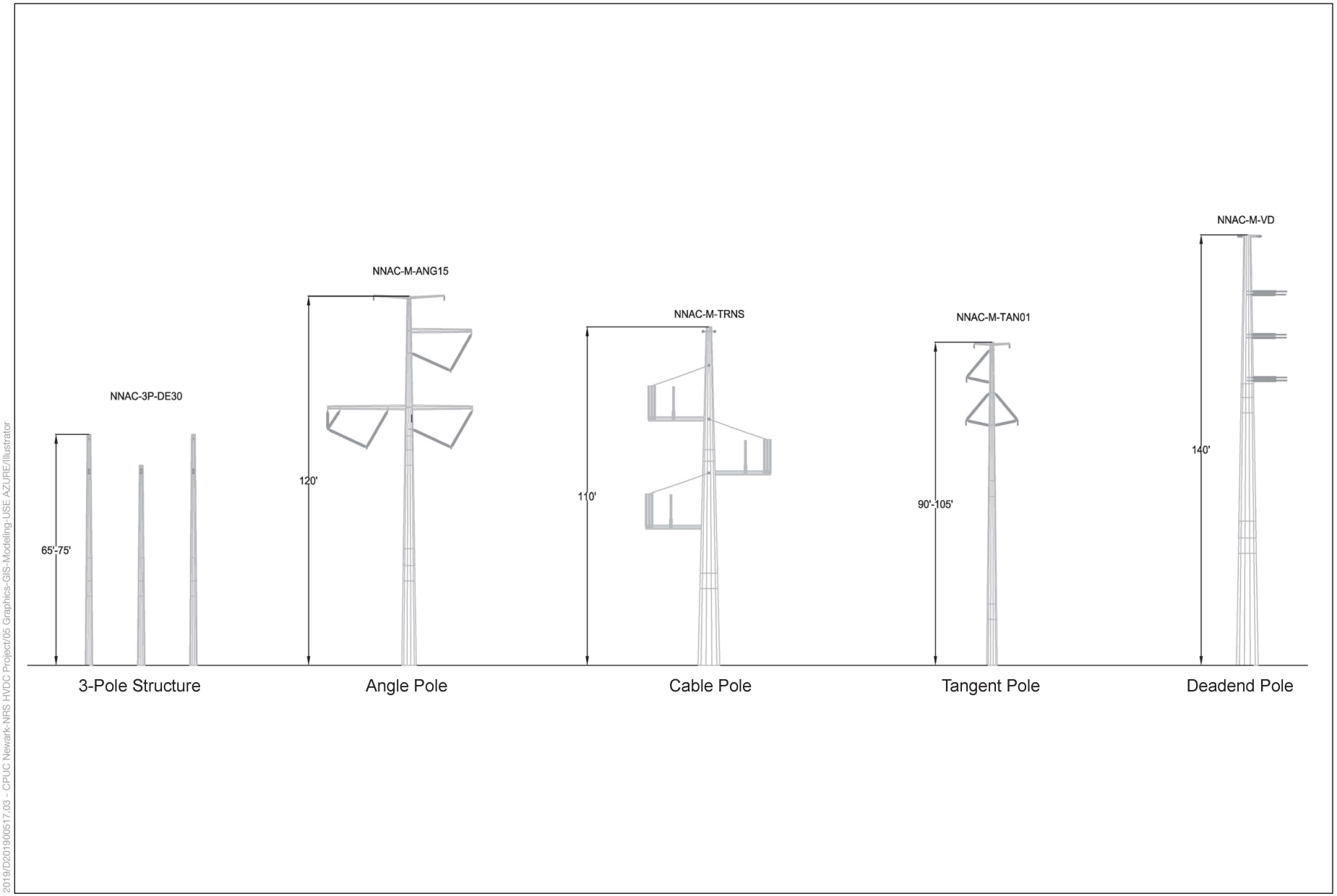
Segment Type	Approximate Length (miles)
Newark to NRS 230 kV AC Transmission Line	
Overhead	2
Underground	10
Total (All Segments)	**12**

NOTES: AC = alternating current; kV = kilovolt; NRS = Northern Receiving Station
SOURCE: LSPGC 2025

2.6.1.1 Overhead Transmission Line

Figure 2-4, *Typical 230 kV AC Overhead Transmission Line Structures*, shows examples of structures similar to those that would be used for the overhead portions of the Project's transmission line. The overhead portions of the line would consist of two separate segments. These segments would extend for approximately two miles and would include 15 new overhead transmission line structures (NN-1 through NN-15).

The primary overhead segment of the transmission line (Figure 2-2c) would span over SCVWD property and existing wastewater drying ponds on RWF lands and would be approximately 1.9 miles long with 11 new overhead transmission line structures (NN-5 through NN-15). Transmission structures along this segment would primarily use self-supported tubular steel poles (TSPs) with a delta (i.e., triangular) conductor configuration and two overhead optical ground wires. Dead-end poles would be self-supported TSPs with a vertical conductor configuration. Tangents would be supported by direct-embed foundations, while angles and dead-end poles



SOURCE: LSPGC, 2024

Power the South Bay Project

Figure 2-4
Typical 230 kV AC Overhead Transmission Line Structures

2019/D2019000517.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

would be supported by deep, reinforced drilled pier foundations.[6] The maximum foundation depth is expected to be approximately 60 feet with a maximum diameter of approximately 12 feet. The proposed overhead transmission structures would range in height from approximately 115 feet to 150 feet[7] and would span segments ranging from 250 feet to 1,300 feet.

The second overhead segment would begin at the existing PG&E Newark 230 kV Substation and would extend for approximately 0.2 mile adjacent to the substation (Figure 2-2a). The transmission line would leave the existing PG&E Newark 230 kV Substation in an overhead position. This segment would include four new aboveground transmission line structures (NN-1 through NN-4), including one cable riser pole and one overhead switch structure, which would be constructed and owned by LSPGC, and two transmission structures within PG&E-owned property that would be constructed and owned by PG&E. These aboveground transmission structures would be a maximum of approximately 140 feet tall and would be supported by deep, reinforced drilled pier foundations with a maximum diameter of 12 feet and depth of 60 feet required. All proposed aboveground structures would be less than 150 feet in height.

At the southern end of the transmission alignment (Figure 2-2d), the transmission line would enter the SVP NRS 230 kV Substation underground and transition to overhead within the existing substation boundary on a steel substation termination/riser structure. The new 230 kV AC termination/riser structures would be approximately 25 feet tall and would have drilled pier foundations **Figure 2-5**, *Typical 230 kV AC Termination/Riser Structures*, provides details and typical metrics for the proposed 230 kV AC termination/riser structures.

Table 2-2, *Proposed Project Pole Summary*, summarizes specifications for the overhead transmission line. The maximum pole height denotes the height of the pole only, whereas the foundations may add an additional two to three feet above ground level.

TABLE 2-2
PROPOSED PROJECT POLE SUMMARY

Pole Type	Approximate Quantity	Approximate Pole Height (feet) [a]	Average Base Diameter at Grade (feet)	Average Tip Diameter (inches)
Newark to NRS 230 kV AC Transmission Line				
Tubular Steel Tangent Poles	5	150	6	14
Tubular Steel Angle Poles	4	150	8	14
Tubular Steel Dead-End Poles	2	135	8	32
Tubular Steel Switch Pole	1	130	10	32
Tubular Steel Cable Riser Poles	3	140	12	32

NOTES: AC = alternating current; kV = kilovolt; NRS = Northern Receiving Station

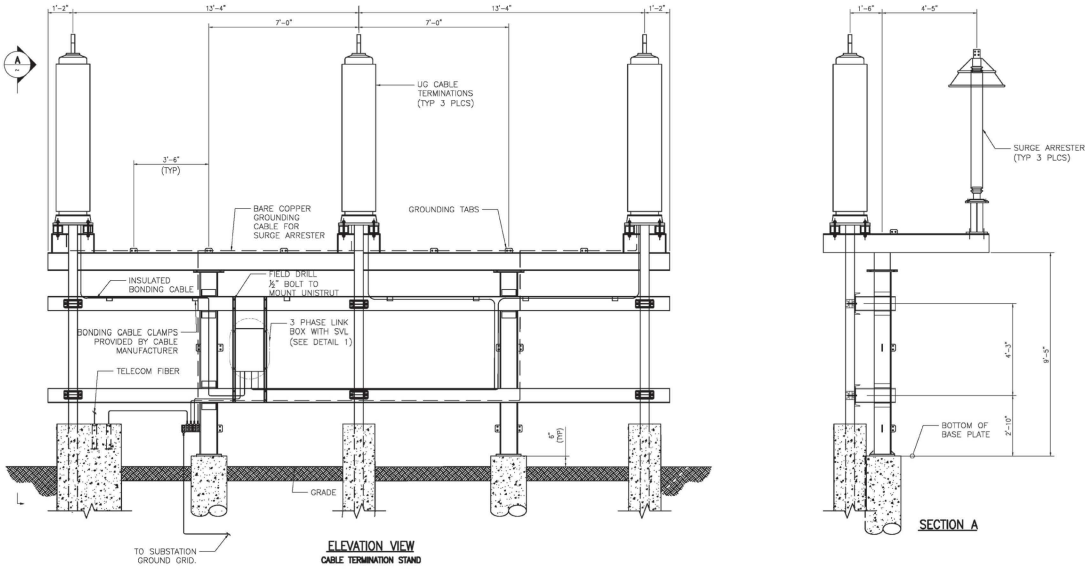
a. The pole height has been measured from the final ground elevation and represents the tallest anticipated structure of each pole type. This information is subject to change based on final engineering designs.

SOURCE: LSPGC 2025

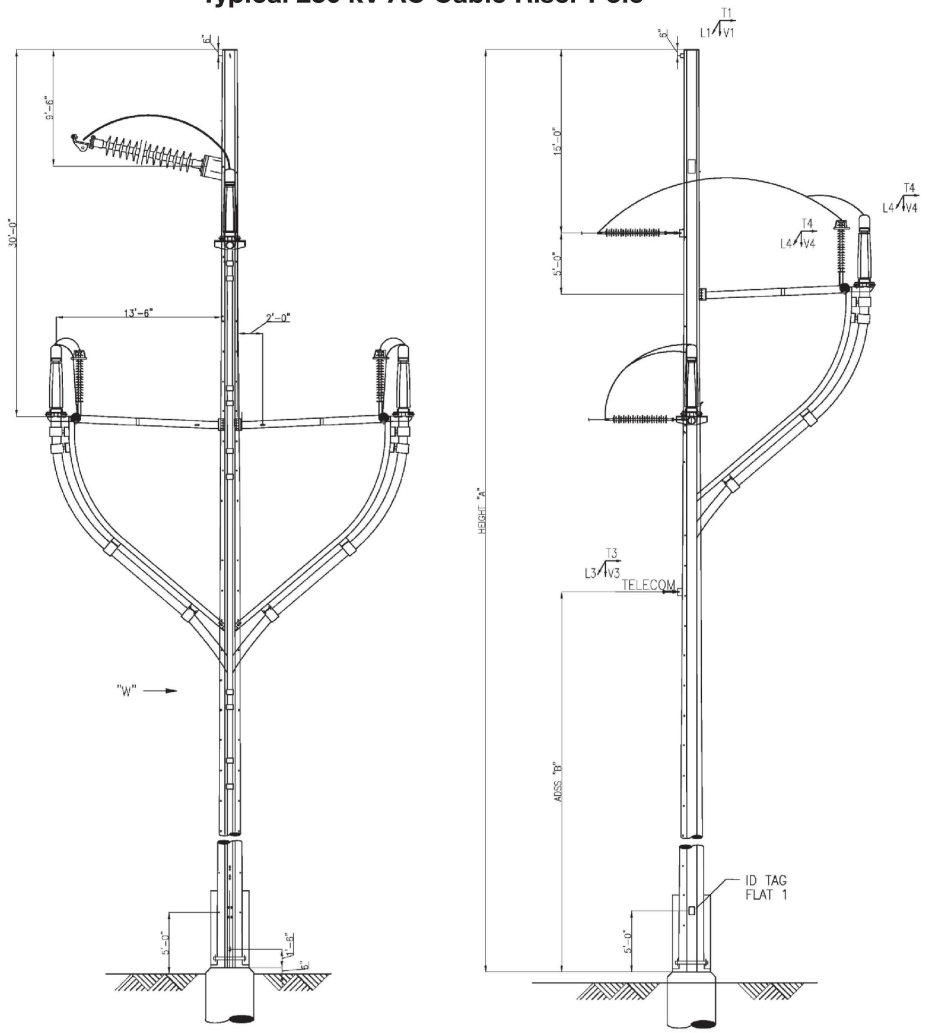
6 A drilled pier foundation is formed by drilling a hole into the ground, filling it with concrete, setting the anchor bolt in the concrete, and securing the structure to the anchor bolt. The foundation would be reinforced with an iron rebar "cage" installed as the concrete is poured for the foundation.

7 Within the city of San José, transmission structure heights are limited to 150 feet in areas with nonresidential or non-urban land use designations.

Typical 230 kV AC Termination/Riser Structure



Typical 230 kV AC Cable Riser Pole



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SOURCE: LSPGC, 2024

Power the South Bay Project

Figure 2-5
Typical 230 kV AC Termination/Riser Structures

2.6.1.2 Underground Transmission Line Segments

The underground portions of the transmission line (Figures 2-2a through 2-2d) would be approximately 10 miles long and would consist of a single-circuit AC transmission line, using six 2,500-square-millimeter copper 230 kV single-core cross-linked polyethylene (XLPE) cables composed of a copper conductor, conductor binder and screen, XLPE insulation, insulation screen, water barrier, metallic sheath, and an outer jacket.

The underground transmission line segments would be encased within a duct bank proposed to have 12 smaller internal ducts. There would also be up to an additional two smaller internal ducts for fiber optics along the line segments located within the city of Fremont, as discussed further below. Underground splice vaults would be placed approximately every 1,500 to 3,000 feet and would measure approximately 30 feet long, 12 feet wide, and 10 feet deep. The vaults would be constructed of prefabricated (precast) or cast-in-place, steel-reinforced concrete. These features are discussed further in Section 2.8.6, *Underground Transmission Line Construction*.

As noted in the previous section, at the southern end of the transmission alignment (Figure 2-2d), the transmission line would enter the SVP NRS 230 kV Substation underground and transition to overhead within the existing substation boundary on a steel substation termination/riser structure.

At this stage of the Project, it is anticipated that the Cushing Parkway segment (Figure 2-2a) would be installed in an open trench adjacent to the bridge within an existing 10-foot utility easement. Construction and operations at this crossing would require the use of an existing 30-foot operation and maintenance (O&M) easement located adjacent to the bridge structure. Currently, LSPGC is also evaluating the possibility of attaching this segment along the Cushing Parkway bridge, as opposed to an open trench. As a conservative approach to the analysis, this document assumes that the construction method for this portion would be open trenching.

2.6.1.3 Telecommunication Lines

The Project would include telecommunications infrastructure that would connect the PG&E Newark 230 kV and SVP NRS 230 kV substations. It is anticipated that these telecommunication lines would be co-located with the new transmission line and that no separate overhead lines or wireless connections (e.g., antennas) would be included. Specifically, two telecommunication fiber optic cables would be installed along the transmission line. The telecommunication cables would be installed underground along the underground portions of the route and overhead along the overhead portions of the route.

In underground segments, the two co-located telecommunication lines would typically be housed in two 2-inch-diameter polyvinyl chloride (PVC) conduits, which would be directly buried along the transmission line's duct bank. The telecommunications lines would be 4 to 10 feet below the 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 proposed transmission line splice vaults.

In overhead locations, telecommunication lines would be attached to the same overhead structures for the transmission line as optical ground wire. The overhead optical ground wire would be installed in a manner similar to that used for conductor installation. Any splices between two reels of optical ground wire would be contained within a splice box mounted on a tubular structure.

2.6.2 Modifications to Existing Substations

2.6.2.1 PG&E Newark 230 kV Substation Modifications

LSPGC would construct the underground transmission line along Weber Road to a transition structure and switch on the east side of Weber Road, all of which would be conducted on PG&E-owned property (Figure 2-2a). The line would continue overhead for approximately 0.2 mile over two structures to be constructed and owned by PG&E. PG&E would be responsible for stringing the conductor from the LSPGC-owned switch to the PG&E-owned structures and into the open 230 kV line position within the PG&E Newark 230 kV Substation. One open 230 kV line position at the PG&E Newark 230 kV Substation would be modified to accommodate interconnection of the Project. PG&E would extend the conductor from its last overhead structure to the new modified Newark 230 kV line position within the PG&E Newark 230 kV Substation. The point of ownership demarcation for the conductor between PG&E and LSPGC would be at a switch structure to be owned by LSPGC at pole location NN-3. The final configuration of the interconnection would be established through a transmission interconnection agreement with PG&E.

Additional proposed substation modifications include the installation of new circuit breakers, disconnect switches, capacitive voltage transformers, a new dead-end structure, and typical substation equipment, such as structural steel, bus work, conduits, and grounds.

The heights of new structures within the Newark 230 kV Substation perimeter would be up to approximately 65 feet above grade (note that the existing structures are also up to 65 feet above grade). New transmission components outside the existing PG&E Newark 230 kV Substation perimeter, but still within PG&E property, would be up to approximately 150 feet above grade (the existing structures are up to 160 feet above grade). The Project may also remove or relocate some distribution components that are outside the existing substation's perimeter, but still within PG&E property. For security reasons, further details and specific locations of existing and future equipment within the facility cannot be disclosed.

2.6.2.2 SVP NRS 230 kV Substation Modifications

LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to an SVP-owned dead-end structure within the substation (Figure 2-2d). SVP would install a new gantry (dead-end) structure within the SVP NRS 230 kV Substation, as well as CAISO metering. SVP would also install the new transmission line segment to the new dead-end structure and would install the jumpers between the line terminations and through the CAISO meters. The new dead-end structure would be owned by SVP.

The required SVP substation modifications, needed because of the increased load being served, would include new line positions, transformer positions, and installation of two new 230/115 kV transformers working in parallel with one existing 230/115 kV transformer.

The heights of new structures within the existing SVP NRS 230 kV Substation would be up to approximately 57 feet above grade (note that the existing structures are also approximately 57 feet above grade). The existing 8-foot chain-link fence on the north and west sides of the SVP NRS 230 kV Substation and the 10-foot concrete post and panel fence on the south and east sides of the property would not be modified. For security reasons, further details and specific locations of existing and future equipment within the facility cannot be disclosed.

2.6.2.3 Design of Transmission Line Avian Protection

Appropriate methods to reduce the risks of avian collisions would be incorporated into the Project design, consistent with recommendations made by the Avian Power Line Interaction Committee (APLIC 2012), where appropriate. Conductors and ground wires would be spaced sufficiently far apart so that raptors would not be able to contact two conductors or one conductor and a ground wire, causing electrocution (APLIC 2006).

2.6.2.4 Aerial Marking and Lighting

In accordance with Code of Federal Regulations Title 14, Part 77.9, the overhead portions of the transmission line would not exceed 200 feet above ground level or any imaginary surfaces and would not be located within 20,000 feet of any airports. Therefore, notice to the Federal Aviation Administration is not anticipated to be required and the addition of aviation lighting and/or marking (i.e., marker balls) is not anticipated for the Project.

2.7 Land Ownership, Rights-of-Way, and Easements

2.7.1 Land Ownership

2.7.1.1 LSPGC Facilities

LSPGC would require a ROW and an easement from private landowners for the transmission line (see Section 2.7.3, *New or Modified Rights-of-Way or Easements*). In addition, LSPGC would secure crossing and encroachment permits, authorizations, and agreements for existing linear infrastructure crossed by the Project.

2.7.1.2 PG&E Facilities

PG&E owns the parcel on which the existing PG&E Newark 230 kV Substation is located.

2.7.1.3 SVP Facilities

The city of Santa Clara owns the parcel on which the existing SVP NRS 230 kV Substation is located.

2.7.2 Existing Right-of-Way or Easements

2.7.2.1 LSPGC Facilities

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

2.7.2.2 PG&E Facilities

PG&E's existing transmission, power, and distribution lines connecting to the PG&E Newark 230 kV Substation are located within existing ROWs or easements, of varying size and width. All substation modifications would be limited to existing utility-owned property (i.e., existing substation properties).

2.7.2.3 SVP Facilities

SVP's existing transmission, power, and distribution lines connecting to the SVP NRS 230 kV Substation are located within existing ROWs or easements, of varying size and width. All substation modifications would be limited to existing utility-owned property (i.e., existing substation properties).

2.7.3 New or Modified Rights-of-Way or Easements

2.7.3.1 LSPGC Facilities

The transmission line and associated duct banks and splice vaults would require new ROWs/easements or franchise agreements. The transmission line's overhead and underground segments would require ROWs measuring 130 feet and 15 feet wide, respectively. The ROW for all underground portions of the transmission line would be expanded at vault locations. The specific width of necessary easements, ROWs, or franchise agreements along the transmission line alignments would be refined during the final engineering process. The Project is anticipated to require approximately 48 total acres of new ROW, easement, and/or franchise agreement.

The overhead portion of the transmission line located adjacent to the PG&E Newark 230 kV Substation would be located on PG&E property and would not require additional land rights, as PG&E would own and maintain this segment of the transmission line.

A portion of the new permanent easements or ROWs would be acquired by LSPGC through negotiations with private landowners, SVP, PG&E, and state, regional, and municipal agencies that own land along the proposed alignment. Specifically, LSPGC would negotiate easements with four private landowners for the transmission line. Should the CPUC approve the Project, LSPGC would negotiate required agreements with the following entities[8]:

[8] The underground transmission line alignment does not cross into the city of Milpitas, although it exits McCarthy Boulevard in close proximity to the Milpitas city limit (border of Milpitas and San José). No encroachment permits and associated traffic control plan (TCP) are anticipated to be required for the city of Milpitas, although final TCPs approved by the city of San José (for work in McCarthy Boulevard) may dictate that some traffic control features (e.g., signs, cones, etc.) extend into the city of Milpitas. If this is the case, LSPGC would coordinate with the city of Milpitas and incorporate input into the city of San José TCPs, as appropriate.

- Alameda County Flood Control District
- City of Fremont
- City of San José
- City of Santa Clara
- Santa Clara Valley Water District
- Santa Clara Valley Transportation Authority
- California State Lands Commission
- California Department of Transportation
- PG&E
- SVP

The total number of land rights to be acquired would be finalized during final engineering. 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 line would not require the relocation or demolition of any commercial or residential properties or structures.

2.7.3.2 PG&E Facilities

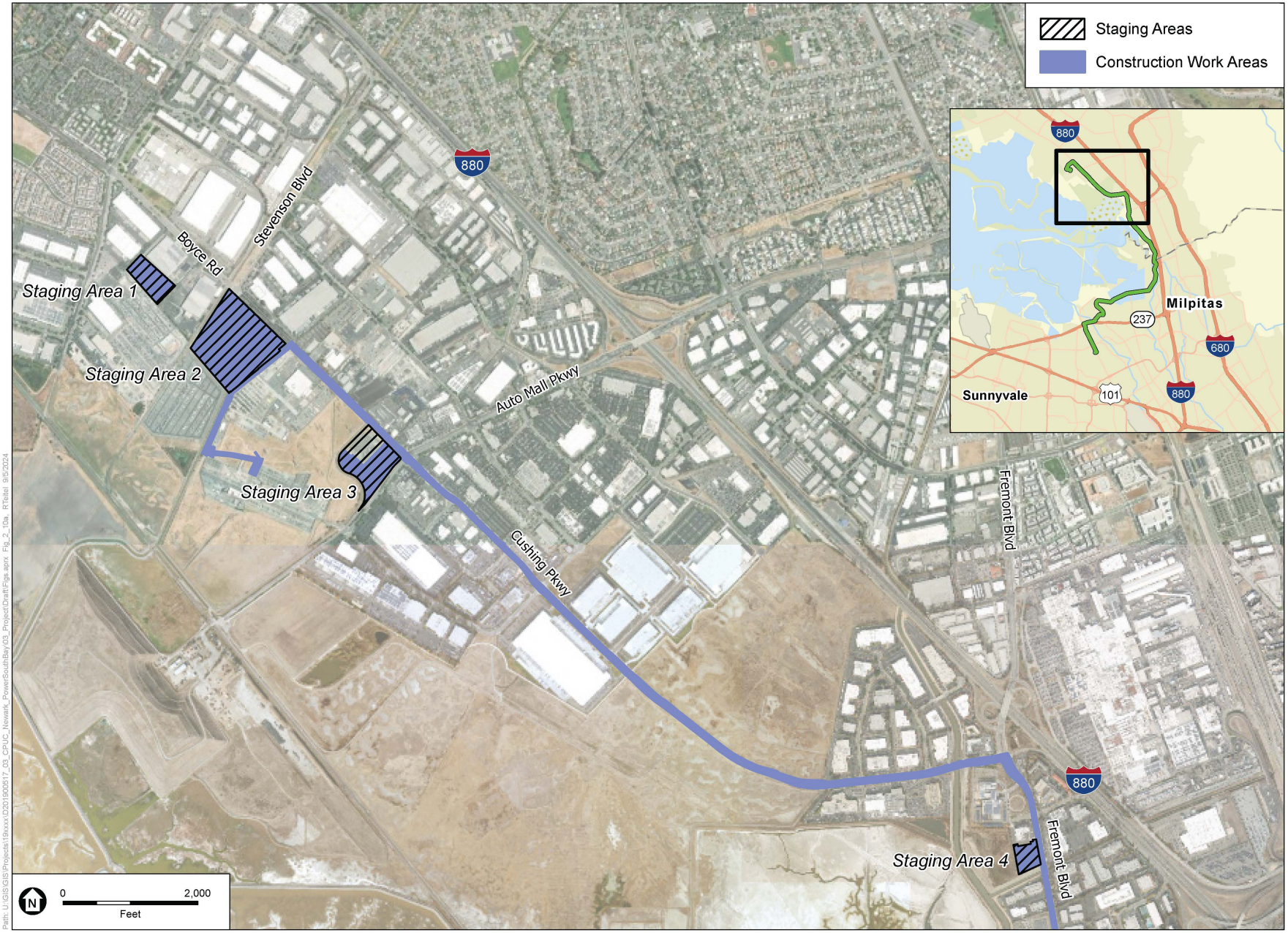
PG&E owns the parcel on which the PG&E Newark 230 kV Substation is located, and no additional ROWs or easements would be required to accommodate Project components under PG&E's responsibility.

2.7.3.3 SVP Facilities

The city of Santa Clara owns the parcel on which the SVP NRS 230 kV Substation is located, and no additional ROWs or easements would be required to accommodate Project components under SVP's responsibility.

2.7.4 Temporary Rights-of-Way or Easements

Temporary easements would be required for the Project's construction staging areas (12 staging areas), as discussed further in Section 2.8.2, *Staging Areas*. **Figures 2-6a** through **2-6d**, *Project Disturbance Areas*, show the locations and general configurations of the staging areas being considered for the Project. One potential staging area would require access beyond public street ROW. If this staging area is used, LSPGC would include temporary access in the temporary easement agreement. Temporary rights necessary for installation of the underground transmission line would be included in the necessary ROW easement/franchise agreements, as provided above.



SOURCE: KP Environmental, 2024

Power the South Bay Project

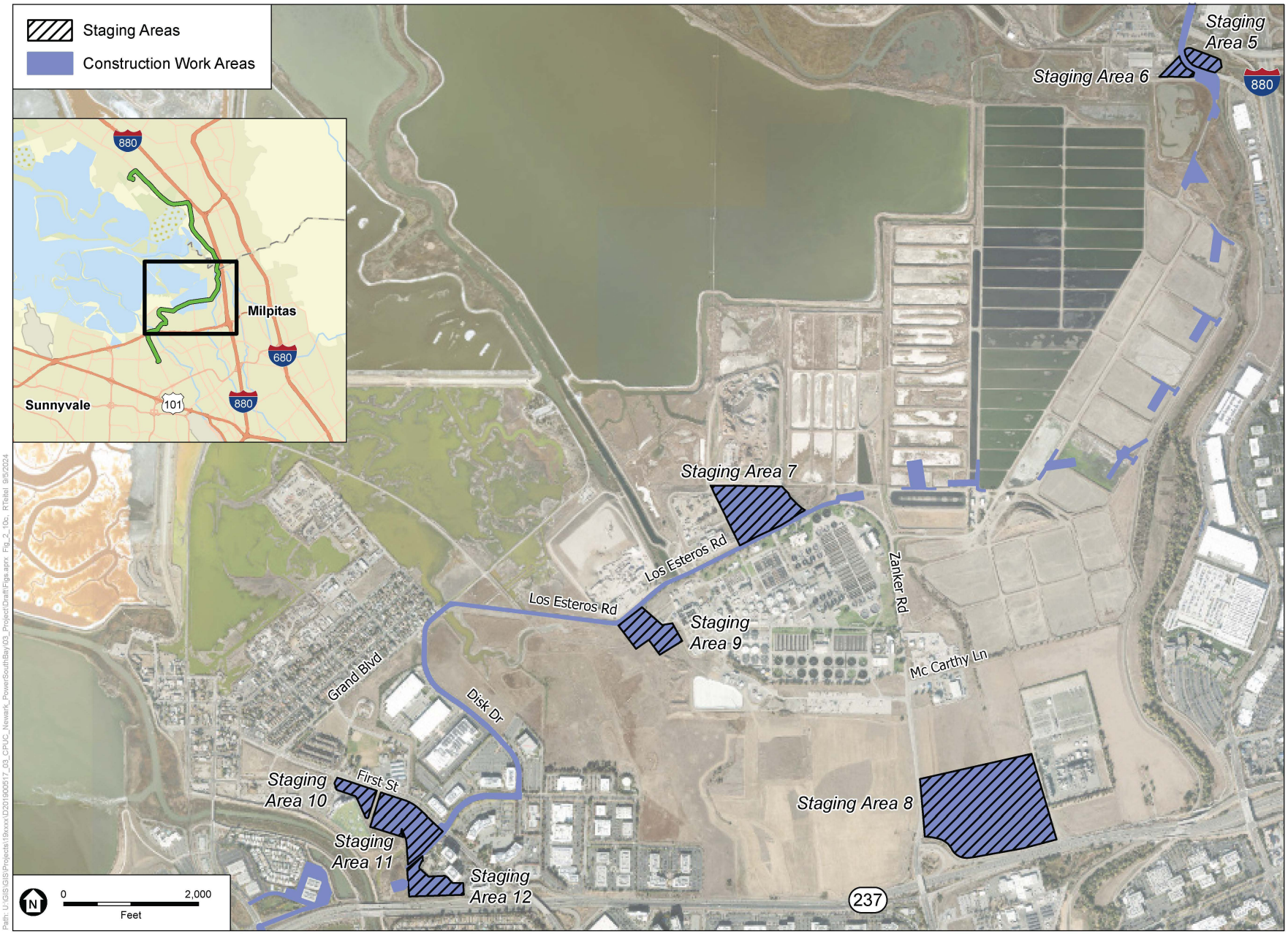
Figure 2-6a
Project Disturbance Areas

ESA

SOURCE: KP Environmental, 2024

Power the South Bay Project

Figure 2-6b
Project Disturbance Areas



SOURCE: KP Environmental, 2025

Power the South Bay Project

Figure 2-6c
Project Disturbance Areas

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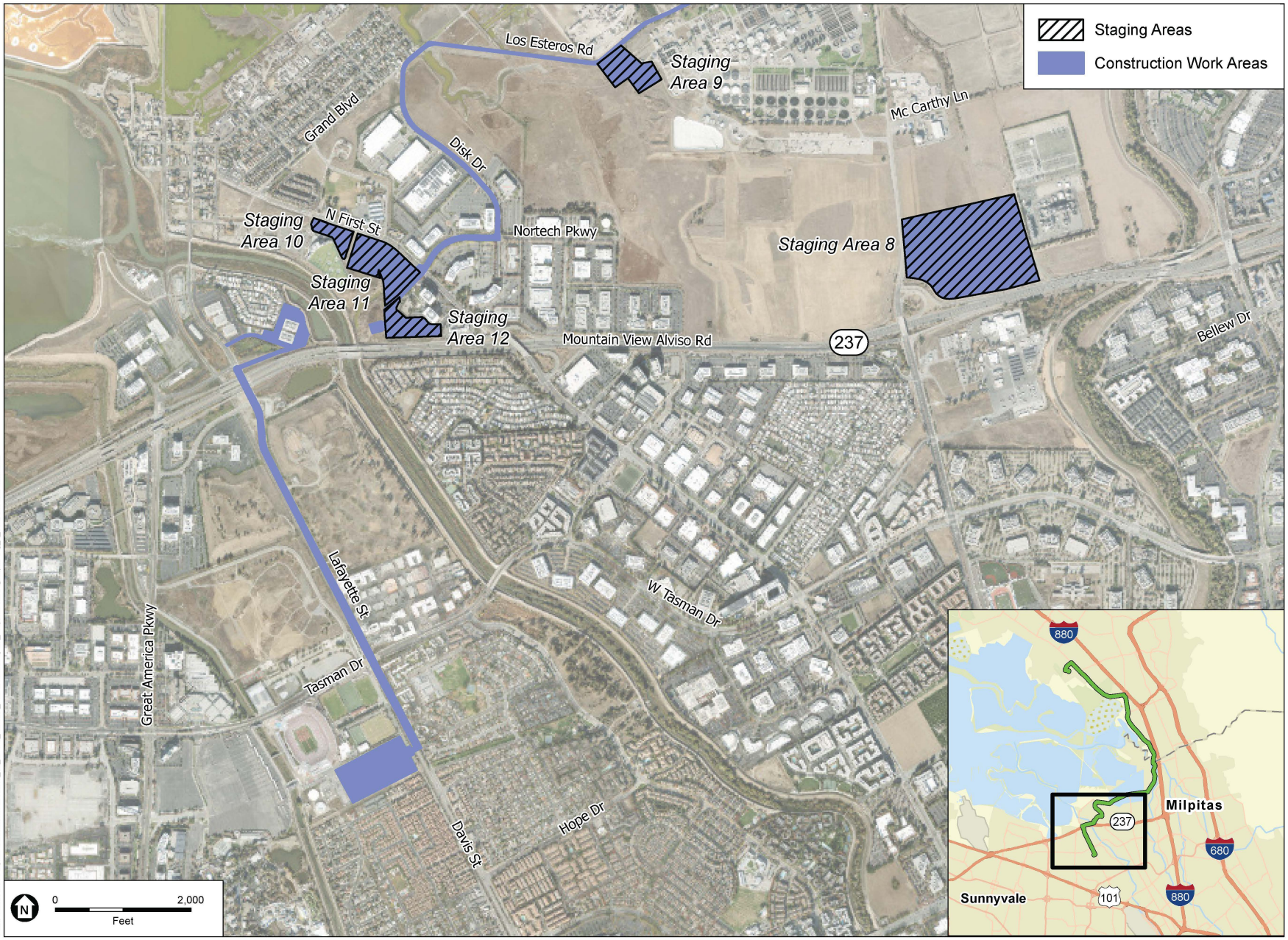


SOURCE: KP Environmental, 2025

Power the South Bay Project

Figure 2-6d
Project Disturbance Areas

ESA

2.8 Construction

The following subsections describe the Project's construction activities, which would include construction of the overhead and underground segments of the transmission line, modification of existing substations, use of construction equipment, and use of temporary work and staging areas.

2.8.1 Construction Access

2.8.1.1 Overland and Existing Access Roads

Existing access roads would provide access to the overhead portions of the transmission line, which would span existing wastewater drying ponds managed by the RWF (Figure 2-2c). For this portion of the transmission line, the existing access road begins at the southern boundary of Staging Area 6, off McCarthy Boulevard, at the location of overhead structure NN-5, and ends at Zanker Road. Using parts of the existing access road network to stage equipment and conduct construction activities would result in approximately 11.5 acres of temporary disturbance (see **Table 2-3**, *Existing Access Roads*).

TABLE 2-3
EXISTING ACCESS ROADS

Name of Road	Type of Road	Dimensions (approximate)	Temporary Disturbance Area (approximate)
N/A—Newark to NRS Existing Access Roads	Existing paved and unpaved access road.	Average of 25 feet wide, 3.8 miles in length	11.5 acres

NOTES: kV = kilovolt; N/A = not applicable; NRS = Northern Receiving Station; PG&E = Pacific Gas and Electric Company
SOURCE: LSPGC 2025

One overland access would be required during construction and O&M for the transmission line's overhead structures NN-1 and NN-2 (Figure 2-2a). The new overland access would be approximately 20 feet wide and 750 feet long and would be located on PG&E-owned property outside of the PG&E Newark 230 kV Substation.

Underground segments of the transmission line would be sited within existing public roads; therefore, the roads where the transmission line would be located, and other roads adjoining those roads, would be used for construction and operations access (Figures 2-2a through 2-2d). The Project is not anticipated to include permanent access roads.

Access to the existing PG&E Newark 230 kV Substation would be from Weber Road and Nobel Drive via Auto Mall Parkway (Figure 2-2a). Access to the existing SVP NRS 230 kV Substation would be from Stars and Stripes Drive and Bill Walsh Way (Figure 2-2d).

2.8.1.2 Waterway Crossings

The Project includes eight waterway crossings, which are shown in Figures 2-2a through 2-2d (see the horizontal directional drilling [HDD] locations on these figures). HDD construction techniques would be employed at these crossings at the following waterways:

- Coyote Creek near 4275 Cushing Parkway (HDD-1).
- Agua Caliente Creek near 46333 Fremont Boulevard (HDD-2).
- A creek offshoot of Coyote Creek that intercepts Fremont Boulevard near 46560 Fremont Boulevard (HDD-3).
- Coyote Creek Lagoon offshoot of Coyote Creek that intercepts Fremont Boulevard near 48401 Fremont Boulevard (HDD-4).
- A wetland just south of the Coyote Creek Lagoon crossing near 48700 Fremont Boulevard (HDD-5).
- Coyote Creek just north of RWF lands near 1601 Dixon Landing Road (HDD-6).
- Grand Boulevard culvert near the intersection with Spreckles Avenue and Los Esteros Road (HDD-7).
- The Guadalupe River adjacent to and north of State Route 237 (HDD-8).

In addition, a segment adjacent to the Cushing Parkway bridge would cross the Don Edwards San Francisco Bay National Wildlife Refuge (Don Edwards NWR). At this segment of the transmission line, LSPGC would conduct trenching (see Section 2.8.6.2, *Trenching*).

2.8.1.3 Helicopter Access

A light-duty helicopter would likely be required to string the overhead transmission line conductor. The helicopter is not expected to be used to transport heavy materials over or within areas of development. During conductor stringing operations, helicopter takeoff and landing areas may include nearby staging areas, such as Staging Area 5, 6, 7, or 8 (see Figures 2-6a through 2-6d). The helicopter may temporarily land on existing or proposed access roads as needed. Local airfields would likely be used for takeoff and landing, fueling, maintenance, and long-term helicopter parking. Fueling would occur at local airfields and would comply with applicable rules and regulations. No fueling is anticipated to take place on Project ROWs or staging areas. The conductor stringing operations that would use the helicopter would be completed in approximately four weeks. Approximately 5,600 gallons of fuel would be needed for the use of the helicopter during construction.

A congested-area plan would not be required because the overhead portions of the Project would be constructed in areas that are undeveloped and restricted from public access and these areas are not anticipated to be overly congested.[9] The Project's helicopter usage would comply with applicable rules and regulations. Should the Project be approved, LSPGC will develop a helicopter plan to set forth all safety and operations procedures. In addition, LSPGC would file helicopter flight schedules with the Federal Aviation Administration as required.

[9] Congested-area plans are required by the Federal Aviation Administration for external load operations performed over congested areas.

2.8.2 Staging Areas

The Project includes 12 potential temporary construction staging areas that would be located along the Project alignment, occupying a total area of approximately 142.7 acres. Figures 2-6a through 2-6d, *Project Disturbance Areas*, show the Project's proposed staging areas. The Project anticipates using approximately three to four staging areas during construction. The 12 potential staging area sites have been included because site availability during the construction window years in the future is uncertain at this stage. All potential staging areas are located adjacent to public roadways, which would provide direct access to each specific staging site.

In addition, limited construction staging and equipment parking may also occur on city streets along the underground transmission line alignment, where approved by the local agency (the cities of Fremont, San José, and Santa Clara). The final staging areas used would be based on site availability at the time of construction. The potential staging area locations and access to each staging area location are summarized in **Table 2-4**, *Proposed Staging Areas.*

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 on existing paved areas, such as Staging Area 12, site preparation would not be required. Staging areas may be used as a refueling area for vehicles and construction equipment; as an equipment wash station; for assemblage; for storage of materials and equipment, storage containers, construction trailers, and portable restrooms; and for parking and lighting. Transmission line materials required for the Project, such as conduit and cables, would be received and temporarily stored at a staging area before installation.

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

Gravel may be used to line the ground at the staging areas to avoid creating 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, which would be shielded to direct light downward and away from any nearby sensitive receptors. Temporary construction power would be provided via existing distribution lines near the staging areas. Temporary generators would be a contingency if distribution power is unavailable at the staging areas.

2.8.3 Construction Work Areas

All Project components would require at least temporary construction work areas, while some components would require permanent work areas for O&M activities. All construction work areas (i.e., limits of construction) are depicted in Figures 2-6a through 2-6d, *Project Disturbance Areas*. The construction (temporary) and O&M (permanent) activities for each Project component are described further below, with a summary of work area disturbance and detailed descriptions of the work that would be performed in each identified work area.

TABLE 2-4
PROPOSED STAGING AREAS

No.	Approximate Location	Approximate Size (acres)	Access
1	Off Boyce Road, approximately 0.5 mile northwest of the PG&E Newark 230 kV Substation	5.4	Access from Boyce Road, southwest to the staging area site.
2	Off Weber Road, adjacent to the transmission line alignment and the PG&E 230 kV Newark Substation	24.6	Direct access from Boyce Road and/or Weber Road.
3	Off Boyce Road, adjacent to the transmission line alignment and approximately 0.1 mile east of the existing PG&E Newark 230 kV Substation	7.8	Direct access from Boyce Road and/or Auto Mall Parkway.
4	Off Fremont Boulevard, adjacent to the transmission line alignment	3.1	Direct access from Fremont Boulevard.
5	Off North McCarthy Boulevard, adjacent to the transmission line alignment	2.6	Direct access from North McCarthy Boulevard.
6	Off North McCarthy Boulevard, adjacent to the transmission line alignment	1.8	Direct access from North McCarthy Boulevard.
7	Off Los Esteros Road, adjacent to the transmission line alignment, north of the RWF	16.7	Direct access from Los Esteros Road.
8	Off Zanker Road, approximately 0.8 mile south of the transmission line alignment	51.6	Access from Zanker Road, Alviso Milpitas Road, and/or Thomas Foon Chew Way.
9	Off Los Esteros Road, adjacent to the transmission line alignment, southwest of the RWF	7.7	Direct access from Los Esteros Road.
10	Off First Street, west of the intersection of Tony P. Santos Way and First Street, approximately 0.2 mile northwest of the transmission line alignment	3.4	Access from North First Street to either Anderson Alley or Bay Vista Drive.
11	Off First Street, adjacent to the transmission line alignment	12.0	Access from North First Street or by Bay Vista Drive.
12	Off Nortech Court, adjacent to the transmission line alignment	6.0	Access from North First Street to private parking lot.
	Total Size (acres)	**142.7**	

NOTES: kV = kilovolt; PG&E = Pacific Gas and Electric Company; RWF = San José–Santa Clara Regional Wastewater Facility
SOURCE: LSPGC 2025

2.8.3.1 Transmission Lines

Overhead Segments

For the overhead transmission line segments, work pads (for foundation drilling and pole erection) and stringing sites would be needed along the transmission line. A work pad would be required at each pole location. The work pads would measure approximately 400 feet long by 130 feet wide within the transmission line ROW. Work pads would first be graded and built up as necessary, using construction mats where required. Work pads would be constructed to include space for foundation drilling, which would require enough room to set up a drill rig and to allow for ingress and egress by dump trucks and concrete trucks. Additionally, work pads would include space for pole erection sites, which would require enough room to assemble the structures, and for crane and boom trucks necessary to set each structure.

Stringing sites would include space to set up the trucks with the tensioning equipment and trailers with reels of conductor. Each stringing site would require clearing an area measuring approximately 400 feet long and would vary in width from approximately 30 feet to 200 feet wide and generally would coincide with the work pads constructed for the structures. The transmission line construction process is discussed further below.

Interconnections and Substation Modifications

PG&E Interconnections and Substation Modifications

The Project's connection to the PG&E 230 kV Newark Substation would not require the expansion of the existing substation site. All work activities for the overhead portion of the transmission line to be installed by PG&E, such as installation of new TSPs and associated foundations, would be conducted within PG&E-owned property. Similarly, modifications required inside the substation to allow for interconnection of the Project to the PG&E system would occur within the substation's fence line. All staging areas for PG&E modifications would be located on existing PG&E-owned property. Construction activities for the proposed modifications at the PG&E Newark 230 kV Substation are discussed further in Section 2.8.7, *Substations, Switching Stations, and Gas Compressor Stations*.

SVP Interconnections and Substation Modifications

The Project's connection to the SVP NRS 230 kV Substation would not require the expansion of the existing substation. All work activities would be conducted within the substation's existing fence lines. Construction activities for the proposed modifications at the SVP NRS 230 kV Substation are discussed further in Section 2.8.7, *Substations, Switching Stations, and Gas Compressor Stations*.

Underground Segments

For underground segments, the exact locations of the transmission line alignment components, including splice vaults, HDD pits, and horizontal bore (jack-and-bore or micro-tunnel) pits, are not known at this time; therefore, the construction work areas have been estimated to include the entire area of the existing road ROW where the transmission lines would be installed. Final

transmission line work areas would be much smaller than the estimates included herein. Typical work areas for transmission line components include the following:

- *Horizontal bore (jack-and-bore or micro-tunnel) sending and receiving pits:* Approximately 50 feet long by 15 feet wide, with a standard depth of approximately 10 feet below grade.
- *Horizontal bore (jack-and-bore or micro-tunnel) temporary construction adjacent to the pits:* Approximately 100 feet long by 30 feet wide.
- *HDD sending and receiving pits:* 20 feet long by 6 feet wide.
- *HDD temporary construction adjacent to the pits:* Approximately 200 feet long by 100 feet wide.
- *HDD pullback area for staging and fusion:* Beginning at the receiving pit and extending longer than the HDD's entire length.
- *Pulling and splicing sites:* Varied sizes depending on site-specific conditions and requirements, but typically approximately 200 feet long by 30 feet wide.

During underground construction within roadways, typically two lanes of traffic would be shut down at the location of construction. This area would represent the temporary construction work area and would be 15 to 30 feet wide depending on site-specific road conditions and TCPs approved by the respective city governments. All additional underground construction activities would occur within this area. In cases which an entire section of roadway would be temporarily closed for construction, it would be done in coordination with the appropriate jurisdiction and in accordance with the TCP.

The conductor cables would be installed in the duct bank after installation of the duct bank and splice vaults. Cable installation would occur at all splice vault locations and near the termination structures at the existing substation sites. Splice vaults would provide entry points for both conductor installation during construction and worker access during O&M activities. After installation of the underground transmission line, the road surface would be restored to its original condition or to a condition otherwise complying with local requirements. All areas other than roads within which underground transmission lines would be installed (e.g., parking lots or sidewalks) would be restored to the original condition or as otherwise agreed to with the respective landowners.

Other Work Areas

Before stringing of overhead transmission lines, temporary guard structures would be installed as described below under *Guard Structures* in Section 2.8.5*, Overhead Transmission Line Construction*.

2.8.3.2 Work Area Disturbance

The Project would result in both temporary (construction-related) and permanent (O&M) disturbance of work areas. **Table 2-5**, *Summary of Work Area Disturbance*, provides estimated work area totals, including temporary and permanent footprints, for each Project component.

TABLE 2-5
SUMMARY OF WORK AREA DISTURBANCE

Work Area	Temporary or Permanent Disturbance	Approximate Disturbance Area (acres)
Staging Areas[1]	Temporary	142.7[2]
PG&E Newark 230 kV Substation Modifications	Temporary[3]	0.5
SVP NRS 230 kV Substation Modifications	Temporary[4]	13.5
Underground Transmission Line[5]	Temporary	89.3
Overhead Transmission Line	Temporary	14.3
Overhead Transmission Line[6]	Permanent	0.02
Total Temporary Work Area Disturbance[7]		**260.3**
Total Permanent Work Area Disturbance		**0.02**

NOTES:

kV = kilovolt; NRS = Northern Receiving Station; PG&E = Pacific Gas and Electric Company; SVP = Silicon Valley Power

1. Does not include staging at substation locations.
2. The total area of the 12 potential staging areas is included in this calculation. However, the Power the South Bay Project would use only about three to four staging areas. Therefore, the actual total disturbance for staging areas would be considerably less than the total area listed.
3. The temporary disturbance area for the PG&E Newark 230 kV Substation modifications is already previously permanently disturbed.
4. The temporary disturbance area for the SVP NRS 230 kV Substation modifications is already previously permanently disturbed.
5. Includes work areas within and adjacent to roads where underground portions of the transmission line would be installed.
6. This includes the permanent disturbance for both LSPGC and PG&E's overhead transmission line foundations.
7. Although permanent work areas, such as the substation 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

Figures 2-6a through 2-6d, *Project Disturbance Areas*, identifies the locations of temporary and permanent disturbance areas associated with the Project. In total, the Project would result in approximately 0.02 acre of permanent disturbance and approximately 260.3 acres of temporary disturbance to mainly previously disturbed land (e.g., PG&E Newark 230 kV and SVP NRS 230 kV substations), roads, and a paved parking lot.

2.8.3.3 Temporary Power

For its construction power supply, the Project would connect to existing overhead or underground distribution lines near the Project alignments and sites. A temporary distribution line may be installed overhead on wood poles or underground to provide temporary power to the staging areas during construction, if not already present onsite. The use of temporary generators at the staging areas would be a contingency should distribution power not be available in a timely manner before the start of construction. It is anticipated that 8-kilowatt (kW), 20-horsepower (hp) diesel generators would be required during installation of the duct banks and splice vaults. Additionally, 25 kW, 45-hp diesel generators would be used during cable installation. Although the exact location of the temporary distribution line is not yet known, impacts from the temporary power would occur within existing road ROWs and the staging area boundaries.

2.8.4 Site Preparation

2.8.4.1 Surveying and Staking

LSPGC would survey and mark the centerline at line-of-sight intervals, at points of intersection (including offset stakes marking the edges of the access road ROW), and at all known overhead structure locations and known underground facilities. LSPGC would also clearly mark environmentally sensitive areas (i.e., areas with sensitive biological, cultural, paleontological, or hydrologic resources) as needed or as required by regulatory permit requirements to restrict construction activities and equipment from entering these areas.

2.8.4.2 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 line, LSPGC would conduct exploratory excavations (i.e., potholing) to verify the locations of existing utility facilities in the ROW. PG&E may need to reroute existing substation getaways at the existing PG&E Newark 230 kV Substation, including raising or lowering some existing transmission lines to provide space for the LSPGC tie-in at the existing PG&E Newark 230 kV Substation. Similarly, SVP may need to reroute existing substation getaways at the existing SVP NRS 230 kV Substation.

In addition, as part of Project construction, excavation and installation of the concrete-encased duct bank and associated splice vaults may require relocating certain third-party utilities in areas of conflict. In the event underground utilities are identified, LSPGC would work with the owner of those utilities to determine whether design changes can be made or whether utility relocation is necessary. Utilities would be avoided where practicable, but some utilities would require relocation. Utilities that could require relocation may include sanitary sewer, stormwater, gas, water, electric, and telecommunication facilities.

2.8.4.3 Vegetation Clearing

Construction and operation of the new transmission line poles and structures would require the permanent clearing of approximately 0.02 acre of annual grassland. General construction (underground, overhead, and staging areas) would require the temporary clearing of approximately 81.5 acres of annual grassland and less than 0.01 acre of riparian vegetation. Vegetation removal would be completed using mechanized removal equipment, such as a bulldozer, mower, or disc tractor, or by hand using chain saws. Vegetation removal would not occur outside of approved work areas.

2.8.4.4 Tree Trimming and Removal

The Project alignment would be cleared of trees and vegetation, specifically for the permanent facilities and to facilitate construction of those facilities. Based on the preliminary design, approximately 16 trees would be removed along the proposed transmission line. Many of the trees are nonnative landscaped trees, including conifers, Canary Island pine, and sweet gum. Tree

removals would occur in the vicinity of overhead structures (e.g., NN-15) and along an underground transmission line where it enters the SVP NRS 230 kV Substation.

Any tree removal or trimming performed would be conducted to facilitate the safe construction of the Project and to reduce the fire hazard associated with construction. If needed, tree removal would be completed using mechanized removal equipment, such as a bulldozer or excavator, or by hand using chain saws. Tree removal would be limited as necessary and would not occur outside of approved work areas.

Tree trimming as required pursuant to General Order 95, Section 35 – Vegetation Management – would be performed if needed as part of ongoing O&M activities for the Project's transmission line. Currently, no trees that would require trimming are present under the proposed overhead transmission line segments.

2.8.4.5 Work Area Stabilization

Temporary work areas and substation modification 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.

2.8.4.6 Grading

Construction of the proposed underground transmission line would result in cut and fill of material. Overhead line construction would involve excavation of the structure foundations (14 foundations). Subsurface rock may be encountered during excavation of the overhead line structure foundations (see additional details in Section 2.8.6, *Underground Transmission Line Construction*).

Approximately 111,500 cubic yards (CY) of material generated from grading and excavation would be hauled off-site, stockpiled, or wasted, and approximately 81,500 CY would be imported on-site. All clean spoils excavated would be used on-site to balance cut and fill, as feasible. All spoils that cannot be reused for the Project and/or contaminated would be sent to a licensed landfill facility or offered for reuse elsewhere. Recyclables would be taken to a licensed recycling facility, and all refuse would be taken to a landfill or another suitable facility. Anticipated grading, excavation, and material removal quantities for the Project are summarized in **Table 2-6**, *Summary of Grading, Excavation, and Material Removal*.

Generally, grading and excavation 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 that lack sufficient strength and stability to support structures would be removed from the work area. Removal would typically extend to competent materials with high mechanical strength and resistant to erosion and deformation. Material that requires processing would be mechanically processed on-site for placement as fill.

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

Grading Description	Approximate Quantity (cubic yards)	Activity Description
Underground Transmission Cut	110,000	Trenching for installation of underground transmission duct banks and splice vaults. Also includes HDD and horizontal (jack-and-bore or micro-tunnel) pits.
Underground Transmission Fill	80,000	Backfill in and around underground duct bank and splice vaults.
Overhead Transmission Cut	1,500	Excavation of structure foundations.
Overhead Transmission Fill	1,500	Backfill and concrete for structure foundations.
	Total Cut	**111,500**
	Total Fill	**81,500**

NOTES: HDD = horizontal directional drilling

Cut and fill estimated quantities rounded to the nearest thousand cubic yards.

SOURCE: LSPGC 2025

2.8.5 Overhead Transmission Line Construction

Table 2-2, *Proposed Project Pole Summary*, presents the aboveground structures proposed as part of the Project. Detailed descriptions of the components of the overhead transmission line segments are found in Section 2.6.1, *Newark to NRS 230 kV Alternating Current Transmission Line*. Construction techniques for these aboveground structures are detailed further in this section.

2.8.5.1 Poles and Towers

As discussed briefly in the preceding sections, construction of the Project's overhead transmission line would use TSPs, which would be either installed on concrete pier foundations or directly embedded. Aboveground structure heights would vary, with a maximum height of approximately 150 feet (see Table 2-2). These aboveground transmission structures would be composed of nonreflective, dull galvanized steel.

To facilitate interconnection of the transmission line into the PG&E Newark 230 kV Substation, two existing distribution line spans on PG&E's property would need to be relocated underground. As part of this relocation, four poles would be removed, and the lines would be undergrounded on PG&E property.

2.8.5.2 Structure Foundations

Aboveground transmission structures would be placed on either drilled pier or direct-embed foundations. Regardless of the foundation type, large augers or drill rigs would complete the required foundation excavations. For drilled pier foundations, a reinforcing steel rebar cage and anchor bolts would then be lowered into the excavation. 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 required strength is met, which may take up to approximately 28 days. After the concrete cures, the aboveground transmission structure would then be secured to the anchor bolts embedded into the finished foundation.

For locations suitable for direct-embed foundations, the foundation hole would also be drilled using a large auger or drill rig. Next, the base section of the tubular steel pole would be lowered into the hole. Finally, the annular space between the wall of the excavation and the tubular steel structure would be filled with native soil, gravel, or concrete.

Should the excavation become unstable during drilling/excavation of a foundation hole, the hole would be kept open either by inserting a permanent or temporary steel casing or by filling the hole with a drilling slurry. After a foundation is drilled to the desired depth using the drilling slurry, concrete would then be pumped to the bottom of the hole, displacing the slurry. Depending on site conditions, the slurry brought to the surface would typically 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.

TSPs would typically require an excavated hole 6 to 10 feet in diameter and 15 to 60 feet deep, resulting in excavations ranging from 16 to 175 CY per foundation. TSPs would require the delivery of 16 to 175 CY of concrete per foundation. Concrete trucks would supply and pour concrete into drilled foundation holes. Cranes would lift and place new poles into the foundation holes or onto pier foundations. Cranes would also lift rebar and anchor bolt cages into foundation holes and suspend them during foundation pouring. Cranes and/or bucket trucks would lift workers into elevated positions to work on newly installed poles or towers. Crew cab and pickup trucks would transport workers and tools to each installation site. Water trucks and portable water tanks would be used to minimize fugitive dust during excavation and restoration activities.

2.8.5.3 Structure Delivery and Assembly

TSPs 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 crane would move the structure sections into place, and forklifts would be used to assemble the arms. Hydraulic jacks may be temporarily mounted between structure sections to jack the structure sections together if they slip together, or the sections would be bolted together. After assembly of the structure on the ground is complete, a crane would lift the entire structure onto the anchor bolts protruding from the drilled pier foundation or onto a previously set base section for a direct-embed foundation.

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

2.8.5.4 Overhead Conductor Cables and Aboveground Structures

Overhead Conductor Cables

Overhead conductor stringing would begin with the installation of insulators and stringing blocks. Blocks are rollers, temporarily attached to the bottom of each of insulator, that allow the conductor to be pulled, or "strung," through each structure until the entire line is ready to be pulled up to the final tension position. The initial stringing operation would consist of pulling a

"sock line," which is a small rope or cable, through the blocks. Pulling the sock line is accomplished by pulling it using either a small helicopter or a vehicle traveling along the ROW. The sock line would then be attached to the hardline, which is a larger cable, and pulled through the blocks. The hardline would then be attached to the conductor, which would then be pulled through the blocks and into place.

Stringing sites would measure approximately 400 feet long and vary in width from 30 feet to 200 feet wide. Stringing sites are typically located at dead-end structures, but they can also be located as required to match the length of conductor reels. Generally, stringing sites coincide with the work pads constructed for the structures and would be in a direct line with the direction of the overhead conductors being installed. A typical stringing site's length is equal to approximately three times the height of the adjacent structure. The equipment required at stringing sites includes a tensioner with a conductor reel at one end of a wire pull and a puller set-up positioned in a stringing site at the other end of a wire pull. The stringing sites used for conductor installation likely would also be used for the installation of overhead optical ground wires.

Figure 2-7, *Typical Overhead Stringing Operation*, visualizes typical aboveground conductor cable stringing for utility transmission lines.

Guard Structures

The Project would use temporary guard structures at road crossings, walking paths, waterways, utility crossings, and other locations where the new overhead conductor could encounter existing electrical and communication facilities or vehicular and/or pedestrian traffic, in the event the conductor accidentally falls during wire pulling operations. Each guard structure would require the temporary use of an area measuring up to 1,500 square feet, depending on the guard structure's configuration and location. Guard structures would be constructed of wooden poles fashioned into an H-frame or using erected bucket trucks. Some guard structures may include netting between the guard structures to provide additional protection. All guard structures would be removed after the conductor is secured in place, a process that would take less than two weeks. Up to approximately 15 guard structures would be used at a total of five locations.

Blasting

Blasting is not anticipated to be required during Project construction or O&M activities.

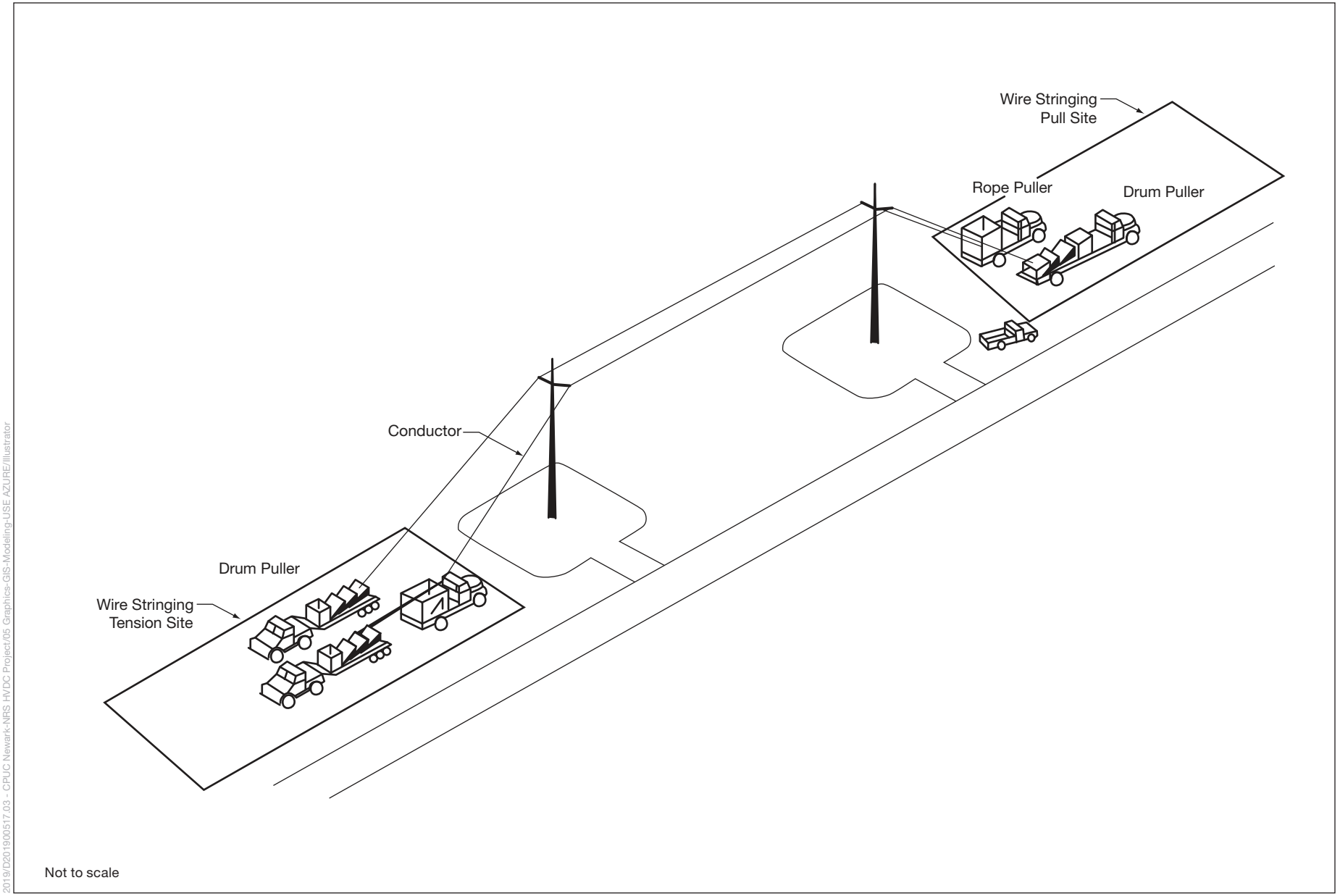
2.8.6 Underground Transmission Line Construction

2.8.6.1 Underground Conductor Cables and Structures

Duct Banks

The underground portion of the transmission line would be encased within a duct bank proposed to have 12 smaller internal ducts. The exception to this would be in the city of Fremont, where a condition of the agreement between LSPGC and the city of Fremont may require up to two additional 2-inch ducts. Ducts would include the following:

- Eight 8-inch ducts for conductor (with six ducts for the installed transmission cable and two ducts as spares).



SOURCE: ESA, 2009

Power the South Bay Project

Figure 2-7
Typical Overhead Stringing Operation

2019/D201900517.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

- Two 2-inch ducts for fiber optic cables.
- Two 2-inch ducts for a ground continuity cable.
- An additional two 2-inch fiber optic cable ducts may be installed in Fremont for the city of Fremont's use as a condition of its franchise agreement.

The minimum depth for the top of duct banks would be approximately 3 feet, with the top of the duct bank typically ranging between approximately 3 feet and 10 feet beneath the surface. The typical width for the underground duct bank would be approximately 2.5 feet in a vertical configuration and 4.5 feet in a horizontal configuration. The Project would use a vertical configuration where possible and would switch to a horizontal configuration when needed for utility crossings.

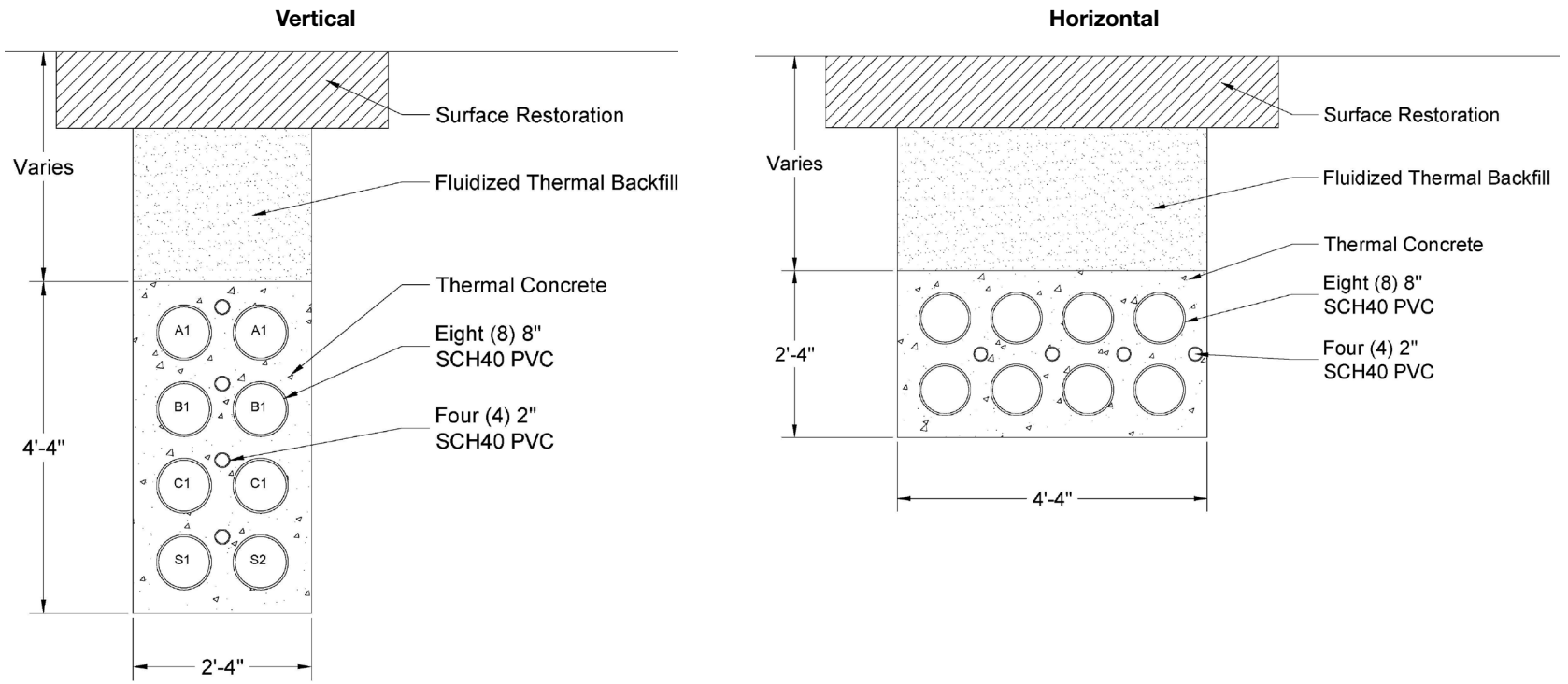
The trench excavation width would typically range between three and six feet, based on the duct bank's configuration and shoring requirements. A duct bank would generally be used everywhere except where trenchless crossings are required. Typical duct bank configurations for the Project are provided in **Figure 2-8**, *Typical Duct Bank Configuration.*

Splice Vaults

The underground portions of the transmission line would require approximately 20 to 30 splice vaults. Cable installation activities would occur at all splice vault locations and near the substation termination structures. Installation of each vault would generally entail excavation, shoring, and leveling of the splice vault pit using crushed gravel or flowable fill; then delivery and installation of the vault using a crane; then backfilling; and finally repaving of the excavated area. Backfill for splice vaults would consist of either compacted native soil or flowable fill.

Underground splice vaults would be located approximately every 1,500 to 3,000 feet with dimensions of approximately 30 feet long, 12 feet wide, and 10 feet deep. The splice vault excavation would be approximately three feet wider on each side for installation of the splice vault. The vaults would be constructed of prefabricated (precast) or cast-in-place, steel-reinforced concrete. Each vault would typically have two manhole covers measuring approximately 39 inches in diameter. The bottom of the splice vaults would typically be located approximately 12 feet below ground level. As practical, splice vaults would be sited to avoid interfering with existing access points and intersections to minimize disruptions to the public during construction and O&M activities. Splice vaults would be sited during detailed engineering design based on gathered utility data and cable supplier specifications. Typical underground splice vault diagrams for the Project's underground transmission line segments are provided in **Figure 2-9**, *Typical Splice Vault Diagrams*.

Underground conductor cables would be installed into the duct banks once the duct bank and splice vaults are constructed. Each duct bank section between splice vaults would be treated as a separate segment in terms of 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 of the duct bank segment. **Figure 2-10**, *Typical Underground Stringing Operation*, visualizes the underground conductor installation process.



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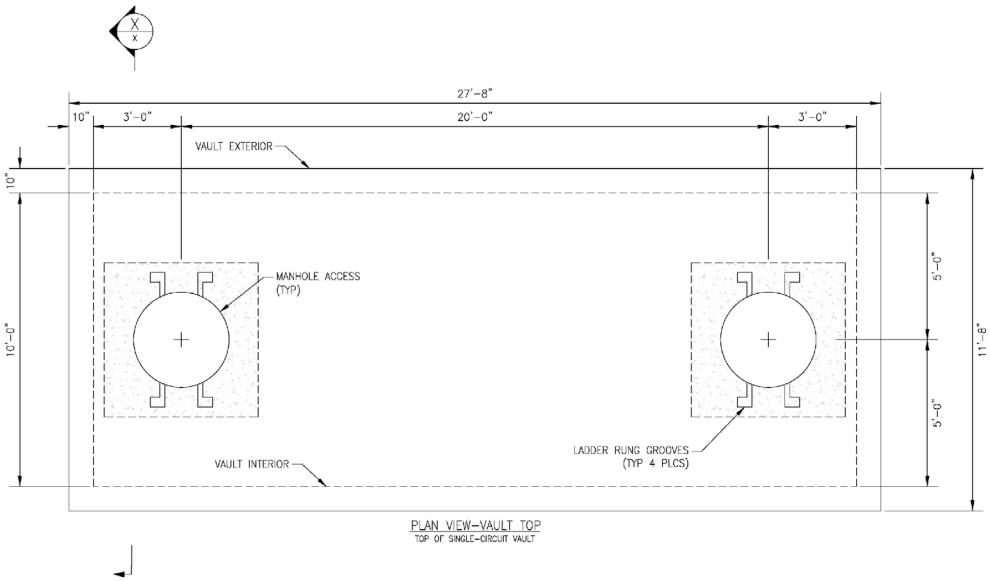
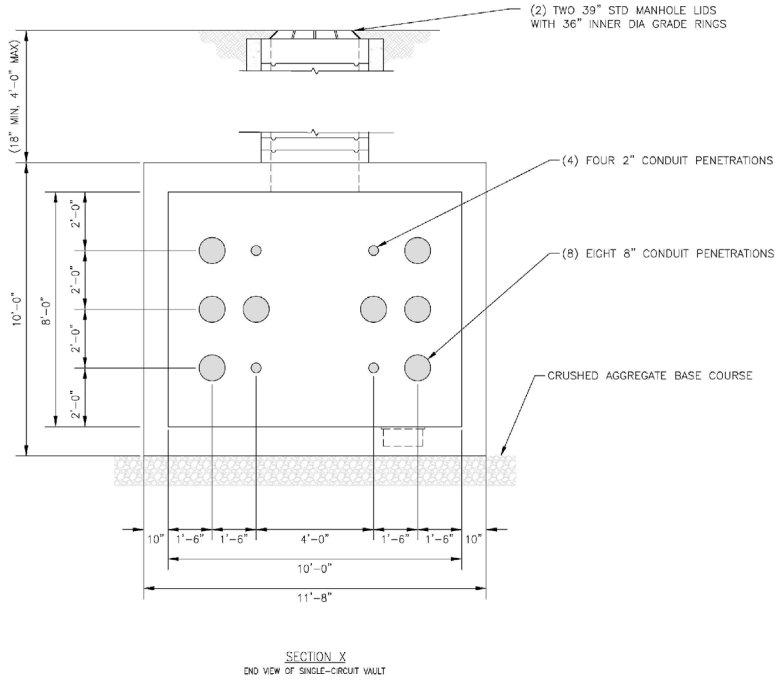
SOURCE: LSPGC, 2024

Power the South Bay Project

Figure 2-8
Typical Duct Bank Configuration

ESA





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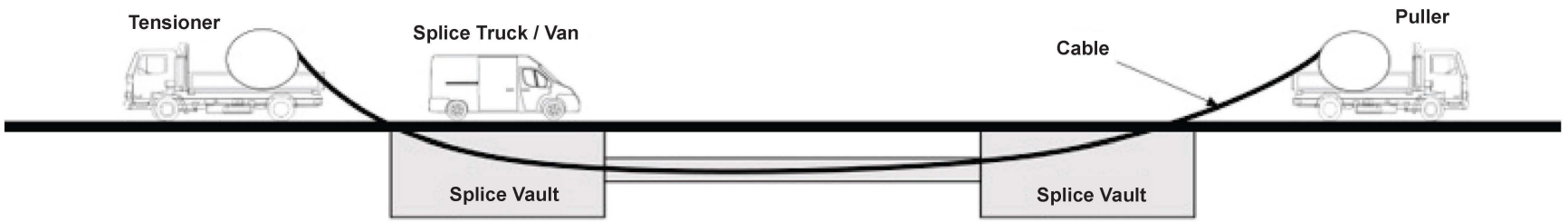
SOURCE: LSPGC, 2024

Power the South Bay Project

Figure 2-9
Typical Splice Vault Diagrams



SOURCE: LSPGC, 2024

Power the South Bay Project

Figure 2-10
Typical Underground Stringing Operation

2019/D2019000517.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

After the cables are pulled through the ducts, construction crews would stage a splice trailer adjacent to the splice vault to complete cable splicing per the manufacturer's instructions and specifications. To reach the elevated terminators on the substation termination structures, temporary scaffolding may be required. During construction, it is anticipated that up to three separate construction crews would be working concurrently on splice vault installations at different locations along the underground transmission line. Cable installation activities would occur at all splice vault locations and near the termination structures at the existing substation sites. During operation, the vaults would provide access to the underground cables for maintenance inspections, repairs, and replacement, if needed.

Splice vaults located within roads would be designed to accommodate all federal and local safety loading requirements, including the American Association of State Highway and Transportation Officials' highway loading guidelines. Construction crews would excavate and place concrete splice vaults that would be used initially to pull the cables through the duct bank and later to splice cables together.

As described below, specialized techniques for underground conductor installation would be used where surface or underground conditions preclude the use of standard trenching techniques. Specifically, the Project would include two locations where a horizontal bore (jack-and-bore or micro-tunnel) method would be used for railway crossings and eight locations where HDD would be used for waterway and culvert crossings. As discussed further below in Section 2.8.8, *Public Safety and Traffic Control*, for work associated with the proposed underground transmission lines in existing roads, temporary fences would be erected around open trenches and bore pits that would be open for an extended period of time. Open trenches would be covered with steel plates during non-working hours. Road barriers, signage, and flaggers would be used around construction areas in accordance with the TCP. The TCP would allow transit by emergency response and maintenance vehicles.

2.8.6.2 Trenching

Open-cut trenching techniques would be used for most of the transmission duct bank installation and for installation of the conductor cable along the Cushing Parkway bridge. For the segment along the Cushing Parkway bridge, there would be no splice vaults within the utility easement because the splice vaults would be located on either side of the bridge. (O&M activities are anticipated to occur at these splice vaults, which would not be present along the Cushing Parkway bridge.)

After marking of the route, the pavement within the trench extents 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 could not reach. Excavators would be used to remove all spoils, with the spoils being loaded into dump trucks to be hauled off-site and disposed of 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. Dewatering procedures are described further in Section 2.8.10,

Water Use and Dewatering. Upon reaching the final trench excavation depth, the trench walls would be secured via shoring.

The trenches used for installation of the underground transmission lines would on average measure approximately three to six feet wide, including the additional width needed for shoring to meet California Division of Occupational Safety and Health (Cal/OSHA) safety requirements, and eight feet deep. Depths may vary depending on soil stability and existing substructures. The trench would be widened and shored to meet Cal/OSHA safety requirements.

The Project would then install the conduits (separated by spacers) and flowable thermal backfill around the conduits to form the duct bank encasement. The ducts would consist of PVC conduits, which would house the XLPE conductor cables. Additional flowable backfill would be used to fill most of the remainder of the trench, as described below. Where the trench is located within roads, a road base backfill, flowable backfill, or slurry concrete cap would be used, and the road surface would be restored in compliance with local requirements.

During installation and restoration of the duct bank, an additional trench would be opened farther down the alignment, ahead of the subsequent duct bank installation work. This process would continue until all duct banks are installed. The trenching operation would progress with a maximum of approximately 1,000 feet of trench left open at any one time or as allowed by permit requirements. Multiple trenching crews would work simultaneously along the route in different locations.

Most trench backfill material is anticipated to be flowable backfill. Flowable backfill material would be evaluated for thermal characteristics adequate to dissipate heat to meet the design capacity of the new transmission lines. The condition of the ground surface after backfilling would be returned to preconstruction conditions. Where needed, grading would be performed to restore the surface to preconstruction contours. The surface of vegetated areas would be reseeded. Disturbed roads would be restored or reconstructed to local requirements. Reconstruction would include the restoration of all removed curbs, gutters, and sidewalks, and of all removed or damaged paved surfaces, including the wear surface, striping, and signage.

Table 2-6*, Summary of Grading, Excavation, and Material Removal*, identifies the grading, excavation, and material types and quantities associated with the Project. The use of spoils as backfill would be minimal, as flowable backfill would be used for most backfilled material. Therefore, almost all spoils would be removed and disposed of or reused off-site. Off-site disposal could occur at the Newby Island Sanitary Landfill (1601 Dixon Landing Road in Milpitas), Kirby Canyon Landfill (910 Coyote Creek Golf Drive in Morgan Hill), Ox Mountain Landfill (12310 San Mateo Road in Half Moon Bay), Guadalupe Landfill (15999 Guadalupe Mines Road in San José), or another approved facility. See the *Solid Waste* discussion in Section 2.8.12, *Waste Generation and Management*, for additional information regarding disposal of excavated materials, and see the *Hazardous Waste* discussion in Section 2.8.12 for processes specific to hazardous materials and potentially contaminated soil or groundwater. BMPs for trenching are addressed in Section 2.15, *Applicant-Proposed Measures and Best Management Practices*.

2.8.6.3 Trenchless Techniques

The Project would include 10 proposed trenchless crossings: 2 horizontal bore (jack-and-bore or micro-tunnel) locations under existing railroad lines and 8 HDD locations under waterways (see Figures 2-2a through 2-2d). The Project would use horizontal bore (jack-and-bore or micro-tunnel) or HDD construction techniques to install conduit ducts at these 10 locations, where open-cut trenching is not feasible. These trenchless techniques are described below:

- The *jack-and-bore technique* employs a horizontal boring machine and would involve concurrently pushing a casing pipe through the trenchless crossing and removing the spoil inside the casing with a rotating auger.
- The *micro-tunnel technique* would use a micro-tunnel boring machine to create the bore hole. Micro-tunneling is a remotely controlled, guided, pipejacking[10] process that provides continuous positive control of earth and groundwater pressure at the face of the excavation. A micro-tunnel boring machine and jacking pipes are pushed into the ground from a jacking shaft to a reception shaft on opposite sides of the crossing. The spoil is removed from the cutting face in a slurry and the casing pipe is pushed in behind it.
- The *HDD technique* would use a drill head with a spray nozzle on the end of a hollow drill to bore under an obstruction. Using a horizontal drill rig, the bore hole is installed in two stages: (1) A small-diameter pilot hole is directionally drilled along a desired directional path; and (2) the pilot hole is then enlarged to a diameter that will accommodate the alignment.

The trenchless crossings may be filled from end to end with flowable thermal backfill to ensure consistent thermal contact between the conduits and the earth to promote heat dissipation, as discussed further below.

Drilling mud and bore lubricant, control, monitoring, and containment measures would be established before the start of trenchless construction activities and would remain in place until after trenchless construction activities are complete. Among these measures would be the following:

- All sediment and erosion control measures would be installed, such as storm drain protection and straw wattles/silt fences.
- The site would be evaluated for areas that are prone to inadvertent release of fluids (typically dry/cracked soils), and proper equipment/materials would be available on-site to address these issues.
- Containment areas would be set up for equipment, drilling mud/lubricants, and cuttings storage. Containment areas typically consist of a pit formed by plastic sheathing and straw wattles.
- HDD equipment containing drilling mud would be set up in the sending and receiving pits to contain any potential spills.
- Consistent with Applicant-proposed Measure (APM) HAZ-1 (see Section 2.15.1, *Applicant-Proposed Measures*), a site-specific spill prevention, control, and countermeasure plan (SPCCP) shall be prepared before the initiation of storage of hazardous liquids on the Project site in excess of the appropriate regulatory thresholds.

[10] *Jacking* is a construction method that pushes a pipe through an excavated hole.

The following BMPs would be implemented during the construction of trenchless crossings:

- Drilling mud and bore lubricant control, monitoring, and containment measures would be established before trenchless construction activities commence and would remain in place until after trenchless construction activities are completed.
- Spoils would be stored at least 25 feet from any body of water and would be 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 watertight containers when not in use.
- Emergency spill/inadvertent release (i.e., frac-out)[11] kits would be staged near trenchless construction equipment.

If soil or groundwater suspected of being contaminated (based on visual, olfactory, or other evidence) is removed during trenching operations, the excavated soil or groundwater would be tested, and, if contaminated above hazardous waste levels, the soil would be contained and disposed of at a licensed hazardous waste facility. All hazardous materials and hazardous waste would be handled, stored, and disposed of in accordance with applicable regulations by personnel qualified to handle hazardous materials. See Section 2.8.11, *Hazardous Materials and Management*, for more discussion of hazardous materials and management.

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

Horizontal bore (jack-and-bore or micro-tunnel) crossings would include one of the following two combinations of components:

Option 1

- One 44-inch casing pipe containing eight 8-inch ducts: six to house the installed cable and two spare ducts.
- Two 2-inch ducts for fiber optic cable.
- Two 2-inch ducts for ground continuity cable.
- Up to two additional 2-inch fiber optic ducts may be installed in Fremont for the city of Fremont's use as a condition of its franchise agreement.
- A wheel assembly with spacers to keep the ducts properly spaced within the casing.

Option 2

- Two 34-inch casing pipes, each containing four 8-inch ducts: three ducts for the installed cable and one spare duct.
- One 2-inch duct for fiber optic cable.
- One 2-inch duct for ground continuity cable.

[11] A *frac-out* occurs when drilling fluids inadvertently escape from the borehole, particularly when pressures in the drilling fluids build up within the borehole until they exceed the strength of the surrounding soils and return to the surface and/or bed of a waterway.

- Up to one additional 2-inch fiber optic duct may be installed in Fremont for the city of Fremont's use as a condition of its franchise agreement.
- A wheel assembly with spacers to keep the ducts properly spaced within the casing.

The horizontal bore (jack-and-bore or micro-tunnel) sending and receiving pits would be located on either side of the features to be crossed. The sending and receiving pits would be excavated using an excavator or backhoe. As described above (see *Underground Segments* in Section 2.8.3, *Construction Work Areas*), the sending and receiving pits for the horizontal bore (jack-and-bore or micro-tunnel) would be approximately 50 feet long by 15 feet. The temporary workspace adjacent to the sending and receiving pits at the horizontal bore (jack-and-bore or micro-tunnel) site would be approximately 100 feet long by 30 feet wide. These dimensions may vary depending on site-specific constraints and permit requirements. The standard depth of the pits would be approximately 10 feet below grade, with the top of the casing pipe generally at least four feet below grade. See **Figure 2-11**, *Typical 230 kV AC Horizontal Bore Diagrams,* to view both of the Project's horizontal boring options.

Depths may vary depending on soil stability, existing substructures, and permitting requirements. The pits would be shored where necessary to meet Cal/OSHA requirements. A typical jack-and-bore sending and receiving pit would require the removal of approximately 350 CY of spoils. All pit spoils are anticipated to be hauled off-site, and a flowable backfill would be used after the trenchless construction.

When located within roads, flowable backfill would be installed and the road surface would be restored in compliance with local requirements. In non-roadway areas, flowable backfill would typically be used after the trenchless construction and duct bank tie-in. The flowable backfill would typically be stopped approximately one foot from the top of finish grade and native soils would be used for the remainder of the backfill.

Horizontal Directional Drilling

HDD crossings would include one of the following combinations of components:

Option 1

- One 48-inch casing containing eight 10-inch ducts: six to house the installed cable and two spare ducts.
- Two 3-inch ducts for fiber optic cable.
- Two 3-inch ducts for ground continuity cable.
- Up to two 3-inch fiber optic ducts may be installed in Fremont for the city of Fremont's use as a condition of its franchise agreement
- A wheel assembly with spacers to keep the ducts properly spaced within the casing.

Option 2

- Two 34-inch casings, each with four 10-inch ducts: three ducts to house the installed cable and one spare duct.
- Two 3-inch duct for fiber optic cable.

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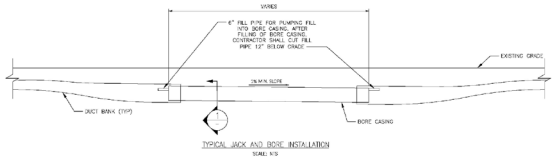
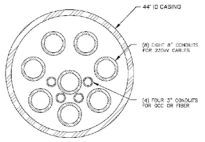
Option 1



TYPICAL JACK AND BORE INSTALLATION
SCALE: N.T.S



SECTION 1 BORE CASING
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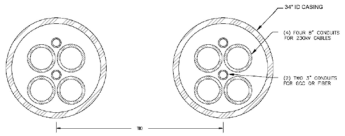
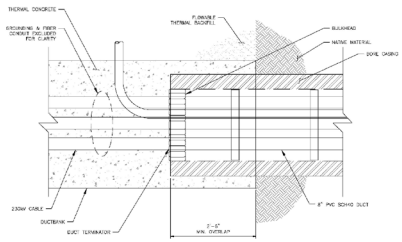
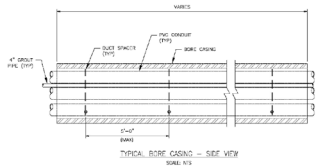


SECTION 2 BORE CASING
SCALE: N.T.S

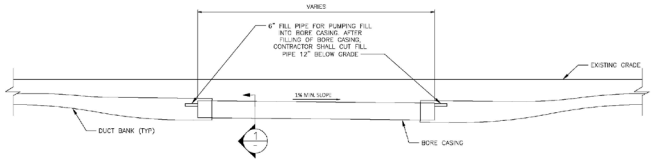


TYPICAL BORE CASING/DUCTBANK INTERFACE
SCALE: N.T.S

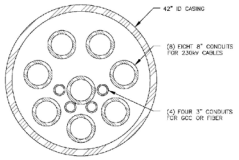


TYPICAL BORE CASING – SIDE VIEW
SCALE: N.T.S

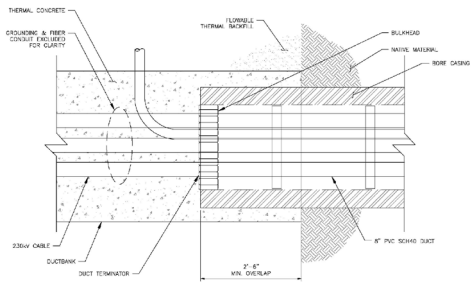
Option 2



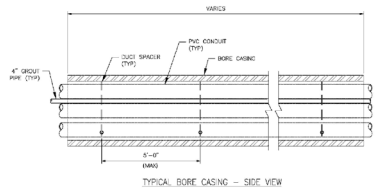
TYPICAL JACK AND BORE INSTALLATION
SCALE: N.T.S



SECTION 1 BORE CASING
SCALE: N.T.S



TYPICAL BORE CASING/DUCTBANK INTERFACE
SCALE: N.T.S



TYPICAL BORE CASING – SIDE VIEW
SCALE: N.T.S

SOURCE: LSPGC, 2024

Power the South Bay Project

Figure 2-11
Typical 230 kV AC Horizontal Bore Diagrams

ESA

- One 3-inch duct for ground continuity cable.
- Up to one 3-inch fiber optic duct may be installed in Fremont for the city of Fremont's use as a condition of its franchise agreement
- A wheel assembly with spacers to keep the ducts property spaced within the casing

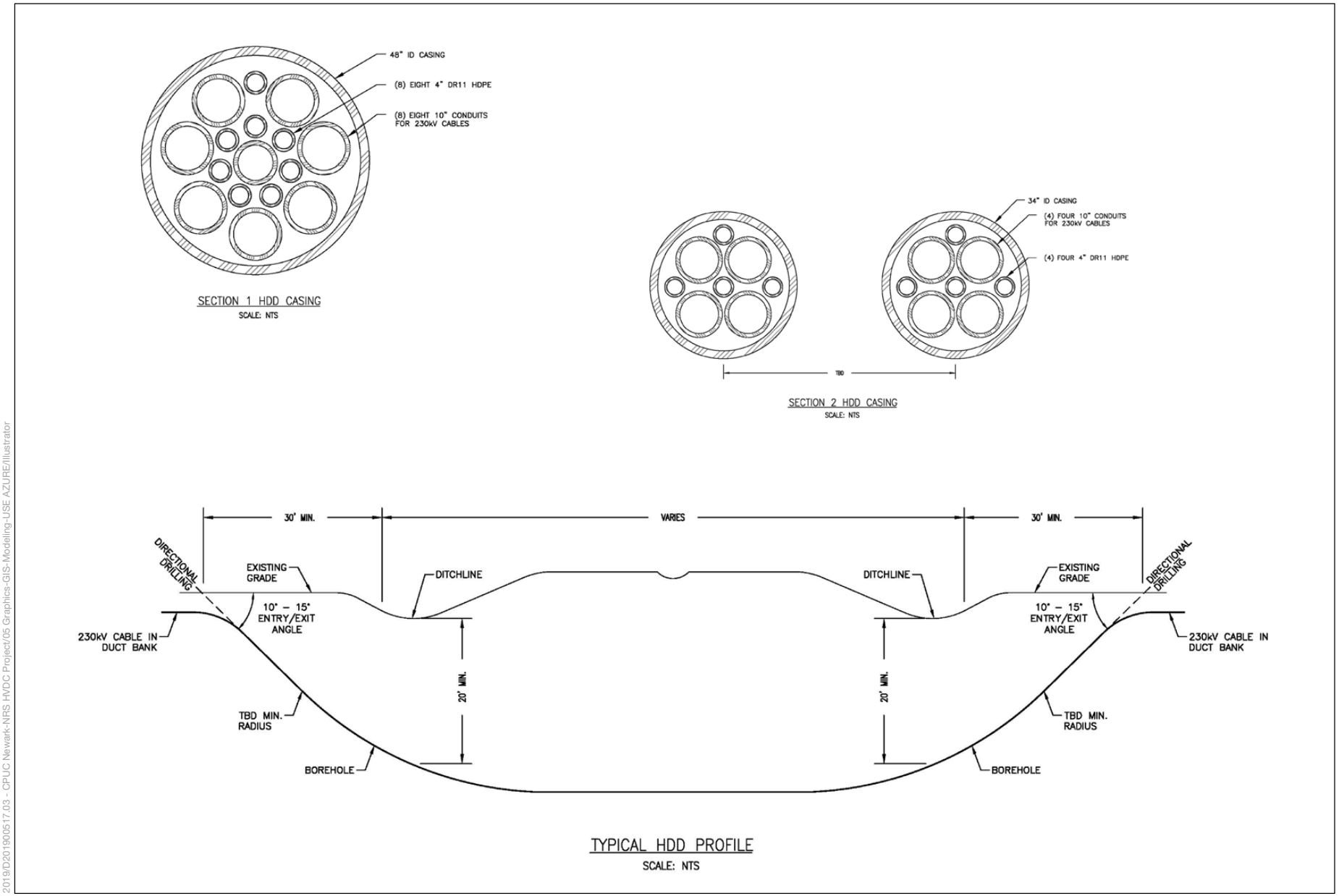
Either the ducts would be pulled through the unreinforced bore hole or a casing pipe would be installed. If a casing pipe is used, the ducts would be pulled through the casing and the remaining space would be backfilled with a thermal grout. See **Figures 2-12a** and **2-12b**, *Typical Horizontal Directional Drilling Diagram*, to view both of the Project's HDD options.

HDD sending and receiving pits would be located on either side of the features to be crossed. The sending and receiving pits would be excavated using an excavator or backhoe. The sending and receiving pits for the HDD would measure approximately 20 feet long by 6 feet wide. These pits would be used only to contain fluid before it is pumped to the control equipment for cleaning and recirculation. The typical temporary workspace around each HDD sending or receiving pit would measure approximately 100 feet long by 200 feet wide, but the temporary workspace dimensions may vary substantially to accommodate site-specific constraints at each setup location. The pullback area for pipe staging and fusion would typically begin at the receiving pit and would be longer than the entirety of the HDD's bore path.

The pits would be shored where necessary to meet Cal/OSHA requirements. A typical HDD sending and receiving pit would require the removal of approximately 20 CY of spoils. As with jack-and-bore crossings, when located within roads, all pit spoils are anticipated to be hauled off-site, and a flowable backfill would be used after the trenchless construction and duct bank tie-in. 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 areas, a flowable backfill would typically be used after the trenchless construction and duct bank tie-in. The flowable backfill would typically be stopped approximately one foot from the top of finish grade and native soils would be used for the remainder of the backfill.

Geotechnical and topographical survey data would be used to design an HDD path that is adequately deep beneath the streambed to minimize the likelihood of an inadvertent release of drilling fluids, occurring. A qualified monitor would monitor conditions during drilling activities to ensure their adequacy. The monitor would continually monitor drilling mud pressures and returns and would immediately shut down drilling operations during any loss of fluid exceeding two percent. The monitor would also visually inspect the bore path at the completion of each joint and 100 feet upstream and downstream along the bore alignment.

In the event of an inadvertent release of drilling fluids, all construction activities contributing to the release would cease immediately, and all applicable regulatory authorities would be notified of the release. Cleanup of the release would be coordinated with the applicable agencies and completed in accordance with their guidance; work in the vicinity of the inadvertent release would not resume until approval from the applicable agencies is received. Once the HDD is complete, the monitor would continue to monitor for an inadvertent release for 48 hours after the drilling is complete.



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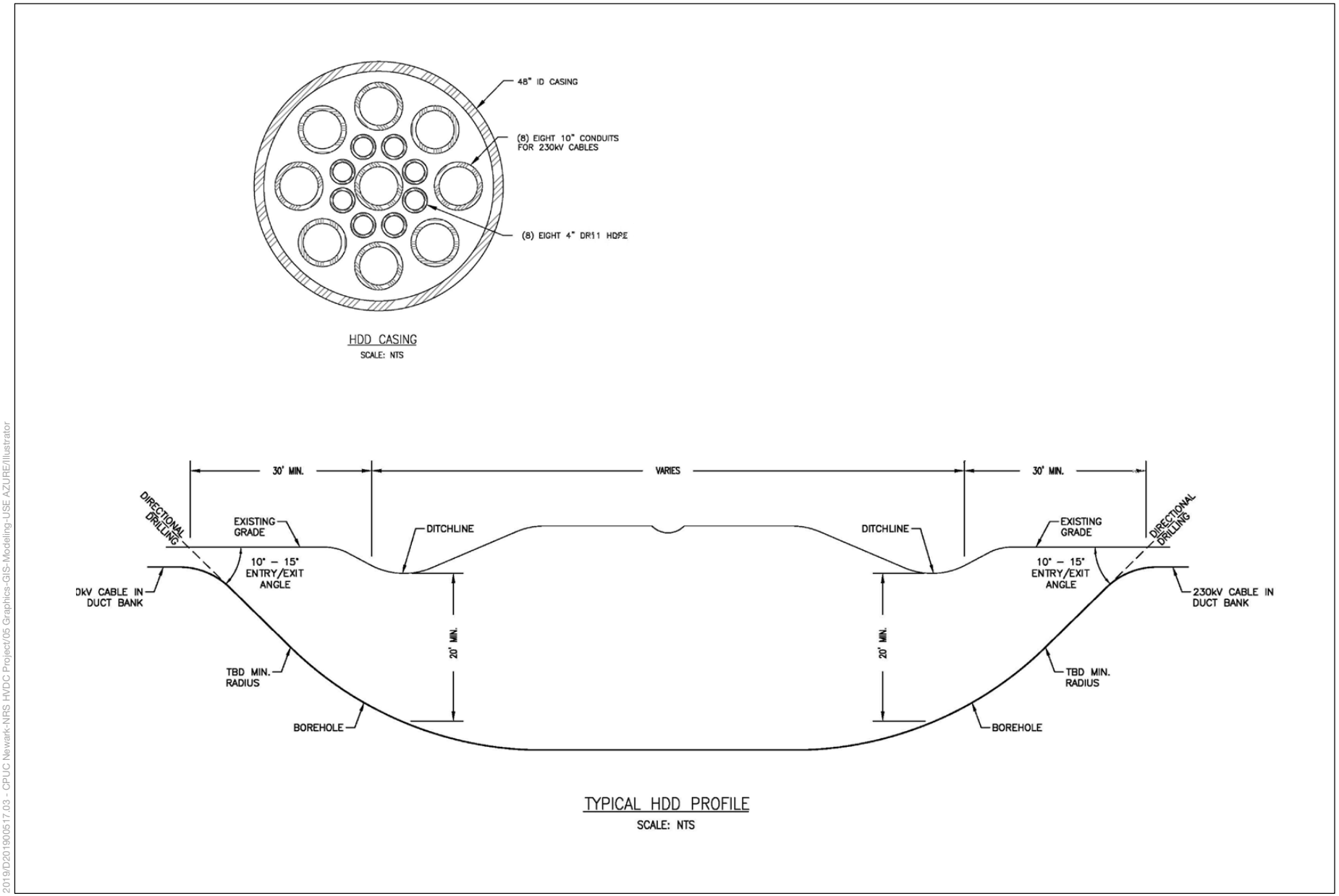
SOURCE: LSPGC, 2024

Power the South Bay Project

Figure 2-12a
Typical Horizontal Directional Drilling Diagram

ESA



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SOURCE: LSPGC, 2024

Power the South Bay Project

Figure 2-12b
Typical Horizontal Directional Drilling Diagram

ESA

In addition to the measures discussed above for trenchless methods in general, the following measures would be taken during HDD operations:

- An emergency spill kit and inadvertent release kit would be on hand for immediate spill response.
- Equipment within 100 feet of any drainage or water resource would be placed in a double containment area.
- Monitoring of fluid pressure, bore paths, and water bodies by a qualified person would continue through the HDD operation.
- A vacuum truck with sufficient hoses would be staged on-site before and during drilling operations for emergency response. A pump would be available to assist the vacuum truck.
- Spoils would be stored at least 25 feet from any body of water and contained by a sediment barrier and plastic sheeting where practical, and drilling fluid would be stored in watertight containers when not in use.
- In the event of an accidental spill, the Project would be equipped with secondary containment that meets applicable regulatory guidelines, as outlined within the HMMP.

2.8.7 Substations, Switching Stations, and Gas Compressor Stations

As indicated above, the Project would include modifications at the existing PG&E Newark 230 kV and SVP NRS 230 kV substations. No new switching stations or gas compressor stations are being proposed. Construction activities for modification of both existing substations are described below.

2.8.7.1 PG&E Newark 230 kV Substation

As discussed previously, construction activities along the boundary (i.e., outside of the fence line) of the existing PG&E Newark 230 kV Substation would include installing new TSPs and associated foundations within the substation property (but outside the perimeter fence); stringing new overhead transmission lines, as well as optical ground wire for telecommunication lines; and trenching for conduit. Further, construction activities within the PG&E Newark 230 kV Substation would include demolition of an existing lattice bay structure and installation or modification of the following components:

- New 230 kV dead-ends, bus, transformer, and 230 kV switch support structures, and associated foundations.
- New 230 kV breakers and foundations, and overhead jumpers.
- Modification of the existing ground grid to address step and touch potential hazards, trenching for new conduits, and pulling and terminating new control cable and fiber.
- New breaker relays in the 230 kV M1 control enclosure.

2.8.7.2 SVP NRS 230 kV Substation

All SVP construction work would occur within the existing fenced SVP NRS 230 kV Substation facility. Construction activities would include the installation of new foundations, structures, and equipment including, but not limited to, transformers, circuit breakers, disconnect switches, and bus configurations. The existing 230kV Double Bus Double Breaker (DBDB) system would be expanded to add one additional bay to support the interconnection of the new 230kV transmission line.

2.8.8 Public Safety and Traffic Control

2.8.8.1 Public Safety

All open holes or trenches associated with the underground transmission lines would be covered or fenced off in coordination with the appropriate permitting authority 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 many months or years for staging areas. Public safety, with regard to traffic controls on roadways and trails, is discussed below. BMPs regarding public and worker safety are addressed in Section 2.15, *Applicant-Proposed Measures and Best Management Practices*.

2.8.8.2 Traffic Control

Traffic control plans, or TCPs, would be implemented as needed during construction. To facilitate construction of the underground transmission line, lane closures would be necessary to provide an adequate work area for construction at any given time. These restrictions would be temporary and short-term. In addition, temporary closures of sidewalks, lanes, roads, trails, paths, and/or driveways along the transmission line alignment may be necessary where the transmission lines are located within existing roads or trails to provide an adequate work area for construction at any given time.

These restrictions would be temporary, and traffic detours could be necessary as part of construction. 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., the cities of Fremont, San José, and Santa Clara). Although TCPs would govern underground transmission line construction within public roadways for the full duration of the construction period, traffic control procedures listed in TCPs, 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. During conductor stringing, traffic control would be required at any public roadway intersections regardless of the need for guard structures. In some instances, especially on small or private roads, the Project may use flaggers to temporarily halt traffic for

brief periods of time while the overhead line is installed over road crossings instead of using guard structures.

All TCPs and encroachment permits would be reviewed and approved by the cities of Fremont, Milpitas, San José, and Santa Clara and Alameda and Santa Clara counties, as appropriate, and would be provided to the CPUC before implementation. TCPs would be based on the final approved Project design. These plans are typically prepared immediately before construction when encroachment permit applications are submitted to the local agency.

2.8.8.3 Security

During construction, perimeter security fencing would be installed around the outer limits of the 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 staging areas and ROWs during periods when construction personnel are not present.

2.8.8.4 Livestock

Livestock may be encountered during installation of the NN-1, NN-2, NN-3, and NN-4 transmission structures adjacent to the PG&E Newark 230 kV Substation. This area is subject to cattle grazing and managed by PG&E. This work would be conducted in coordination with PG&E. PG&E regularly conducts maintenance work on the site while grazing cattle are present and has developed procedures for excluding the cattle from work areas, which would be implemented during construction.

In addition to the PG&E property, the Don Edwards NWR alongside Cushing Parkway is a grazing location for cattle. The cattle are generally excluded from the maintenance easement that would be used by LSPGC alongside the Cushing Parkway bridge. Because of the exclusion fencing, LSPGC does not anticipate encountering livestock during Project construction, but LSPGC would coordinate with the U.S. Fish and Wildlife Service (USFWS) during construction.

2.8.9 Dust, Erosion, and Runoff Controls

2.8.9.1 Dust

During construction, migration of dust from the construction sites would be limited by control measures set forth by APMs AQ-1 and AQ-2 provided in Section 2.15.1, *Applicant-Proposed Measures*. These measures may include the use of water trucks and other dust control measures, including the application of nontoxic soil binders.

2.8.9.2 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. Although the SWPPP would designate specific BMPs based on site conditions, the BMPs may include such measures as silt fencing, straw waddles, erosion control blankets, and riprap.

2.8.9.3 Runoff

The Project would not require a stormwater management system for runoff. Runoff from the Project would be handled according to the Project-specific SWPPP discussed above.

2.8.10 Water Use and Dewatering

2.8.10.1 Water Use

Water would be used regularly for dust control in the staging areas and 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. A total of up to approximately 8,000,000 gallons of water would be used for construction purposes. Water use during construction activities would be temporary, and the water would originate from a local source that has the existing capacity to service the Project's needs. In addition to the potential use of potable water, recycled 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.

Water would be necessary to facilitate restoration of temporarily affected areas once construction is complete. The Project would not require water sources for O&M activities. O&M personnel would be responsible for providing their own drinking water during O&M activities.

2.8.10.2 Dewatering

Dewatering would be conducted using a pump or well points. Groundwater encountered during underground construction would be pumped into water trucks for haul-off or directly into containment tanks (e.g., Baker tanks) that would allow acceptable de-sedimentation before discharge; the groundwater would be tested for turbidity and pH, among other required parameters. The groundwater would be discharged into the storm sewer system when the water meets quality standards established by applicable regulations and acquired permits, or it would be hauled off for disposal if parameters are detected in concentrations that prohibit discharge. Discharge may also be applied to flat, vegetated, upland areas, may be used for dust control, or may be used in other suitable construction operations if testing determines that the water is suitable for such use. All hazardous materials and hazardous wastes would be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. See Section 2.8.11, *Hazardous Materials and Management*, for more discussion of hazardous materials and management.

Dewatering from excavations would be conducted in accordance with the provisions of Attachment J to the General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order WQ 2022-0057-DWQ).

2.8.11 Hazardous Materials and Management

2.8.11.1 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 at the construction site(s) for all workers. Based on the anticipated 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 through 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 are not expected to be used during construction. As shown later in this chapter in Table 2-11, *Applicant-Proposed Measures*, APMs HAZ-1 and HAZ-2 have been included for a site-specific SPCCP and hazardous materials management plan (HMMP).

2.8.11.2 Hazardous Materials Management

Before construction, an SPCCP (if required) and HMMP would be prepared, describing the use, transport, storage, and management of hazardous materials, and disposal protocols. Construction would not begin until these plan(s) are complete, as applicable. 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 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.
- 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.

2.8.12 Waste Generation and Management

Disposal of trenching and grading spoil materials is discussed in Section 2.8.6, *Underground Transmission Line Construction*. Disposal of dewatering effluent is discussed in Section 2.8.10, *Water Use and Dewatering*. Stormwater runoff is discussed in Section 2.8.9, *Dust, Erosion, and Runoff Controls*.

2.8.12.1 Solid Waste

Solid wastes generated during construction would be primarily nonhazardous wastes, including wood, metal, paper, and plastic packaging. Construction debris volumes are estimated to total approximately 1,500 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 wastes would be sorted, and recyclable and nonrecyclable materials would be stored separately in the staging areas.

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, Kirby Canyon Landfill, Ox Mountain Landfill, Guadalupe Landfill, or another approved facility (CalRecycle 2023a, 2023b).

Where possible, the Project would transport excess soil to landfills that recycle excess soil materials as part of landfill operations (as opposed to disposing of the soils as waste). Landfills would determine their capacity for recycling in the future, closer to the time of disposal. Pavement waste produced from trench excavation is anticipated to be transported to an appropriate recycling facility in the area. Recyclable construction material would be transported to an approved recycling facility.

2.8.12.2 Liquid Waste

Liquid waste streams anticipated for the Project primarily include sanitary waste, dewatering effluent, drilling fluids, and stormwater runoff. 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 facility. Sanitary waste would be generated at a rate of 50 to 100 gallons per week for every 10 workers on-site. Drilling fluid is anticipated to be disposed of at the Altamont Pass Landfill or another approved facility.

2.8.12.3 Hazardous Waste

Use of Hazardous Materials

As discussed previously, construction of the Project would require the limited use of hazardous materials, such as fuels, lubricants, cleaning solvents, and chemicals. 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 the use, transport, storage, and management of hazardous materials, and disposal protocols. This could include containerization in U.S. Department of Transportation–approved vessels, review of the relevant Safety Data Sheet, 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.

Staging Areas and Newark to NRS 230 kV Alternating Current Transmission Line Site Contamination

Staging Areas 11 and 12 and an underground portion of the Newark to NRS 230 kV AC transmission line are located within the Cisco Systems Site 6 (EnviroStor Case Number 43010027)/Syntax Court Disposal Site (GeoTracker Case Number T10000007316), an approximately 19-acre site with soil contaminated with heavy metals, including lead and arsenic, as well as volatile organic compounds in soil vapor and shallow groundwater. A soil management plan and health and safety plan were prepared in 2001 to guide handling of potentially contaminated soil within the site, which was named Cisco Systems Site 6. Because the contaminated fill material was left in place, a "Covenant to Restrict Use of Property" was put in place on May 23, 2003, and includes the following restrictions and requirements for the site, which could affect some aspects of Project construction:

- No residence for use as human habitation.
- No hospital for humans.
- No schools for persons under 21 years of age or day care centers for children.
- California Department of Toxic Substances Control (DTSC) access for inspection, monitoring, or other activities necessary to protect public health and the environment.
- Written notice to DTSC at least 14 days before any activities that will disturb the soil at or below 1.5 feet below grade.
- Completion of activities that disturb the soil at or below 1.5 feet below grade in accordance with procedures described in the soil management plan and health and safety plan approved on April 27, 2001, by DTSC.
- Management of contaminated soils brought to the surface in accordance with applicable provisions of federal and state and law.
- No notice required for activities that disturb only the top 1.5 feet of soil below grade. However, upon conclusion of such activities, at least 1.5 feet of clean soil must be maintained above the contaminated fill layer.
- No cultivation of food (cattle, food crops).

2.8.13 Fire Prevention and Response

2.8.13.1 Fire Prevention and Response

The Project site is located within a low-fire-threat area as identified by the California Department of Forestry and Fire Protection. Under Section 35 of General Order 95, the CPUC regulates aspects of the design, construction, and O&M of electrical power lines and fire safety hazards relative to vegetation management 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 California Public Resources Code Sections 4292 and 4293 in

State Responsibility Areas. The Project would be designed and constructed in accordance with all applicable federal and state regulations. The Project site is not located within a State Responsibility Area.

2.8.13.2 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, the Project would implement a five-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

The construction workforce that would be deployed for the Project is anticipated to reach a maximum of approximately 36 workers at a single construction site at one time. The peak employment for the Project overall would be approximately 200 workers, but, on average, the workforce on-site during active work sites throughout the Project alignment would be less. The workers would likely commute from the Greater Bay Area. For the underground transmission line activities, multiple duct bank, splice vault, trenchless crossing, and cable installation crews would work simultaneously along the route in different locations. Up to 10 crews could be working simultaneously to complete the transmission line activities discussed above.

Appendix A, *Construction Equipment and Workforce Table*¸ 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

The equipment that would be used to construct each Project component, along with its approximate duration of use, is provided in Appendix A. In addition, a full list of equipment that would be used during construction is provided in **Table 2-7**, *Anticipated Construction Equipment*.

In addition to the use of the equipment identified above, pickup trucks and construction worker vehicles are anticipated to travel daily to and from the work areas for each Project component.

TABLE 2-7
ANTICIPATED CONSTRUCTION EQUIPMENT

Equipment Type	Equipment Use
Air compressor	Operate air tools
Asphalt grinder	Grind asphalt
Asphalt paver	Conduct restoration
Backhoe	Excavate trenches
Bobcat	Excavate trenches
Boom truck	Access poles and other height-restricted items; lift/set steel
Boom truck with trailer	Deliver steel, disc, panels, and insulators
Bucket truck/manlift	Set steel; install equipment; use as a guard structure
Bulldozer	Grade access roads; conduct 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 from the truck
Concrete truck	Transport and pour concrete
Crane	Lift/position equipment and materials
Diesel generator	Provide power for construction activities
Drilling rig/truck-mounted augur	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 the site and move soil; restore original contours
HDD machine	Install trenchless crossing
Heavy mauler moving truck	Transport large equipment to site
Helicopter	Conduct stringing activities
Jack-and-bore machine	Install trenchless crossing
Jackhammer	Break concrete and asphalt
Line truck	Install clearance structures; pull cables/connections
Loader	Conduct demolition; load dump trucks
Micro-tunneling machine	Install trenchless crossing
Pickup truck	Transport construction personnel and materials
Portable generator	Operate power tools and work trailers
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

TABLE 2-7
ANTICIPATED CONSTRUCTION EQUIPMENT

Equipment Type	Equipment Use
Scraper	Grade pads and access roads
Security vehicle	Provide site security
Splice truck/trailer	Store splicing supplies
Street sweeper	Clean paved roads
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	Provide equipment and materials for field welding
Wire truck	Hold spools of wire

NOTE: HDD = horizontal directional drilling
SOURCE: LSPGC 2024

2.9.3 Construction Traffic

Section 2.8.1, *Construction Access*, describes how construction traffic would access the Project area. The types and quantity of equipment that would be used to construct each Project component, along with its approximate duration of use, is provided in Appendix A.

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. Worker vehicles would generally be parked within one of the staging areas, although some worker vehicle parking may occur on-site during construction of the underground transmission line within existing roads. Most of the transmission line crews would park at one of the proposed staging areas, and a worker would drive other workers from the staging areas to the transmission line site(s).

Because construction would occur on public roadways, TCPs and encroachment permits would be required from the cities of Fremont, San José, and Santa Clara. Additionally, TCPs may be required for construction only in the city of Milpitas along McCarthy Boulevard. Pursuant to APM TRA-1, traffic controls would be implemented during the short-term closures necessary for activities such as duct bank trenching, construction of underground transmission lines, vault installations, and delivery of heavy equipment and materials. Traffic controls would include measures such as the use of traffic control cones, candles, electronic and/or temporary signage, and/or barricades between work zones and transportation facilities.

The peak vehicle trips would occur during periods when construction of the transmission line would overlap construction of substation modifications. The duct bank excavation and installation portion of the Project would have the largest number of trips for a single phase of construction,

given the number of crews and the hauling away or importation of fill. Total maximum daily vehicle trips (i.e., round trips) during periods of full construction overlap would be approximately 584 trips per day, consisting of approximately 301 truck trips and 283 worker trips. Other periods of construction would have lower average worker vehicle trips and would therefore have correspondingly lower impacts. **Table 2-8**, *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.

TABLE 2-8
ESTIMATED AVERAGE DAILY CONSTRUCTION TRAFFIC

Construction Phase	Average Daily Truck Trips[1]	Average Daily Worker Trips[2]	Average Daily Truck VMT	Average Daily Worker VMT	Total Daily Average VMT
Newark to NRS 230 kV AC Transmission Line—Underground					
Surveying/potholing	18	38	540	1,134	1,674
Vaults	36	43	1,080	1,296	2,376
Duct bank and restoration	120	79	3,000	2,376	5,376
HDD crossings	24	25	480	756	1,236
Horizontal bore (jack-and-bore or micro-tunnel)	12	6	240	189	429
Cable installation	24	29	720	864	1,584
Newark to NRS 230 kV AC Transmission Line—Aboveground					
Surveying	4	2	160	54	214
Clearing/ROW/access	20	32	600	972	1,572
Foundation/structures/wire	20	23	600	675	1,275
Other Construction Activities					
Commissioning and testing	6	18	180	540	720
PG&E Newark 230 kV Substation upgrades and connection	10	18	400	540	940
SVP NRS 230 kV Substation upgrades and connection	5	9	200	270	470
Use of staging areas	30	18	900	540	1,440

NOTES:

AC = alternating current; HDD = horizontal directional drilling; kV = kilovolt; NRS = Northern Receiving Station; PG&E = Pacific Gas and Electric Company; ROW = right-of-way; SVP = Silicon Valley Power; VMT = vehicle miles traveled

1. Truck trips include water trucks, dump trucks, traffic control trips, and equipment delivery trips. Truck trips are trips moving from one site to another site. This does not include miles traveled on the Power the South Bay Project (Project) site.
2. Worker trips are commute trips by workers.

- This table assumes that workers live approximately 15 miles from the worksite. This is based on the suburban area and the proximity of recreational vehicle parks.
- Table is based on the landfill locations in relation to the Project.

SOURCE: LSPGC 2025

Vehicle trips generated by construction personnel would generally occur with workers arriving at the site in the morning and leaving at the end of the workday, with limited worker-related trips to or from the worksite during the day. Construction activities are anticipated to occur Monday through Saturday during daylight hours. However, given the large amount of construction proposed within existing roads, local municipalities may dictate that transmission line

construction occur at night within certain portions of the Project area. The most likely locations of nighttime construction are within commercial and industrial areas, not residential areas. To reduce the potential number of daily worker-related vehicle trips to and from the site, the Project would encourage carpooling where practicable.

2.9.4 Construction Schedule

Project construction would take approximately 26 months to complete, depending on unforeseen or unpredictable factors such as weather. Rainfall is unlikely to cause substantial delays in the schedule, and wildfire delays are not expected because the Project site is in a low-fire-threat area. Project-specific permit conditions could affect the schedule if special-status species or other sensitive resources are identified in the Project area. Construction is anticipated to begin in March 2026 and to run through May 2028. The complete construction schedule, outlined by task, is summarized in **Table 2-9**, *Proposed Construction Schedule*. See Appendix A for additional information regarding the construction schedule for each Project component.

As shown in Table 2-9, construction of the transmission lines would generally occur in a linear fashion, with underground and overhead segments being constructed concurrently.

TABLE 2-9
PROPOSED CONSTRUCTION SCHEDULE

Phase/Activity	Start Date	End Date	Approximate Number of Workdays
Transmission Lines			
Laydown Yard Site Development	March 2026	June 2026	120
Construction Contractor Mobilization and Surveying	March 2026	December 2026	270
Underground Transmission Line Construction	April 2026	January 2028	630
Overhead Transmission Line Construction	June 2026	February 2027	270
Commissioning and Testing	March 2028	May 2028	90
Existing Substation Modifications			
PG&E Newark 230 kV Substation Modifications	December 2026	February 2028	450
SVP NRS 230 kV Substation Modifications	September 2025	March 2027	108

NOTES: kV = kilovolt; NRS = Northern Receiving Station; PG&E = Pacific Gas and Electric Company; SVP = Silicon Valley Power
SOURCE: LSPGC 2025, Jackman, pers. comm. 2025.

Project construction activities would generally be scheduled to occur during daylight hours six days per week (Monday through Saturday). However, as noted previously, given the large amount of construction proposed within existing roads, local municipalities may dictate that transmission line construction occur at night. Night work may be required during portions of the trenchless construction (e.g., during jacking and pullback operations) to allow for continuous operation. All work hours for the underground transmission lines and trenchless crossings would be coordinated with the affected municipalities. For the duct bank and vaults, work would occur outside of peak traffic hours as coordinated with the affected cities. 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, mitigate safety concerns, or address emergencies.

For the underground transmission line activities, work would generally progress in a linear fashion, with multiple duct bank, splice vault, trenchless crossing, and cable installation crews working simultaneously along the route in different locations.

2.10 Post-construction

2.10.1 Configuring and Testing

A final commissioning and testing plan would be coordinated with PG&E, SVP, 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 transmission line would be tested in accordance with Project requirements. After pre-commissioning, the transmission line would be energized. Appendix A identifies the personnel and equipment that would be used for commissioning and testing and the approximate duration of use.

2.10.2 Landscaping

Most of the Project would be installed underground in paved roadways. Landscaping along the Project alignment would be restored to preexisting conditions as needed. The Project would coordinate with the cities of Fremont, Milpitas, San José, and Santa Clara to obtain tree removal permits and replace trees pursuant to the applicable municipal codes. Additional landscaping would not be installed unless required by a local government or other jurisdictional agency. No new landscaping is anticipated for the Project; however, should any be required, the landscaping would consist of drought-resistant plants to minimize the need for watering and other maintenance. Any nonnative landscaping affected by the Project (specifically within the public ROW) would be restored to pre-Project conditions and would be consistent with the restoration requirements outlined in local encroachment permits. Restoration of areas containing natural vegetation would also be restored to pre-Project conditions and in accordance with APM BIO-1.

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 temporarily disturbed work areas would be restored to their preconstruction conditions.

2.10.3.2 Site Restoration

The Project 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 2.8.12, *Waste Generation and Management*. Any types of Project waste materials that are routinely recycled would be recycled in an appropriate fashion at an approved disposal facility. The Project team 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, 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. 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. 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.

2.10.3.3 Incidental Road Damage

As discussed previously, the Project would be accessed primarily via paved public roadways. The Project team would work with the appropriate department of transportation or other applicable agency to identify any incidental road damage caused by Project construction and restore roads damaged by the Project to preconstruction conditions (see APM TRA-3, Repair Infrastructure). The Project would also comply with all permit conditions (e.g., encroachment permits) related to roadway usage and repair as required. Permits and approvals that may be required for the Project are discussed in Section 2.14, *Anticipated Permits and Approvals*.

2.11 Operation and Maintenance

2.11.1 Regulations and Standards

Project O&M 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 site 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 O&M 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 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 CASIO standards for inspection, maintenance, repair, and replacement.

2.11.2 System Controls and Operation Staff

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

The Project would have a supervisory control and data acquisition/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, O&M 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 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.

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. Desertlink's Transmission Maintenance and Inspection Plan was approved by CAISO in 2020.

Before energization, the Project would be incorporated into LSPGC's existing maintenance policies and procedures. As part of these policies and procedures, LSPGC has a transmission maintenance plan (TMP) into which the Project would be incorporated. The TMP would provide details on items such as inspection frequency and type, components to be inspected, qualifications of inspectors, and recordkeeping. LSPGC's Protection System Maintenance Program would contain specific maintenance and testing procedures for applicable activities. 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

The Project would have specific inspection plans that would detail inspection items, the inspection period, and staff qualifications required to perform the inspections. Project-specific inspections are described further below in Section 2.11.4, *Operation and Maintenance Programs*.

2.11.3.2 PG&E and SVP Facilities

Both PG&E and SVP would continue regular inspections at the PG&E Newark 230 kV and SVP NRS 230 kV substations, respectively.

2.11.4 Operation and Maintenance Programs

2.11.4.1 LSPGC Facilities

Once construction is complete, the Project would not be occupied on a daily basis. As stated previously, LSPGC would hire one additional California-based technician to accommodate the integration and O&M of the Project. The technician would perform minor repairs and oversee the outside contractors conducting Project maintenance. The transmission line inspections would be performed by the qualified technician 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. The overhead transmission line would be visually inspected from the ground periodically by a crew of two or more technicians. Should any issues be found during inspections, maintenance would be performed on the transmission line component as required.

Operational and functional 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 and SVP Facilities

Both PG&E and SVP would continue regular O&M activities at the PG&E Newark 230 kV and SVP NRS 230 kV substations, respectively.

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 five 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.

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. In accordance with the fire break clearance requirements identified in Public Resources Code Section 4292 and California Code of Regulations Title 14, Section 1254, the

Project team would trim or remove flammable vegetation in the area surrounding the Project site and all other safety hazards, as applicable. Crews would typically 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 overhead transmission line clearances. Because of the underground nature of the Project, LSPGC would also look for underground vegetation encroachments, including tree roots, water intrusion, and other naturally occurring environmental encroachments.

2.12 Decommissioning

2.12.1 LSPGC Facilities

LSPGC anticipates that 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. If the disposal, recycling, or future abandonment of the Project facilities becomes reasonably foreseeable, LSPGC would be responsible for making and implementing a plan to decommission the facilities.

2.12.2 PG&E and SVP Facilities

It is anticipated that the Project would be in operation or use indefinitely, with no currently established plans or timing for decommissioning. PG&E and SVP would retain their respective facilities as long as they are useful.

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 anticipated to be required are listed below in Section 2.14.2, *Anticipated Permits and Approvals*. LSPGC would also obtain any other regulatory approvals as 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 (i.e., the decision to grant or deny a CPCN), as well as holding LSPGC accountable to obtain necessary approvals, adhere to those approvals, and ensure that the Mitigation Monitoring, Compliance, and Reporting Plan (MMCRP) is implemented. The section below discusses and presents a preliminary list of approvals expected to be needed for Project construction and operation.

2.14.2 Anticipated Permits and Approvals

The CPUC is the lead California state agency for compliance with CEQA for the Project. LSPGC must comply with CPUC General Order 131-D Section III.A, which sets forth permitting requirements applicable to construction of the Project (CPUC 2023). LSPGC prepared a PEA as part of an application (A.24-05-014) filed with the CPUC to obtain a CPCN for the Project. Although PG&E and SVP are not applicants in LSPGC's application for a CPCN, PG&E's and SVP's scopes of work are included herein because the Project, as described above, would interconnect to PG&E and SVP's electrical grid. It is expected that PG&E would subsequently file a Tier 2 advice letter with the CPUC pursuant to CPUC General Order 131-E Section III.B to provide a notice of the construction of its interconnection portions of the Project.

In addition to the CPCN, the Project may require several other permits from federal, state, and local agencies. **Table 2-10**, *Anticipated Permits and Approvals*, lists the permits, approvals, and licenses that the Project may be required to obtain from jurisdictional agencies.

TABLE 2-10
ANTICIPATED PERMITS AND APPROVALS[1]

Agency	Permit/Approvals[2]	Permit Trigger	Application Process	Timing
City of Fremont	Traffic control plan	Any construction within public ROW.	Submit application and TCP to City of Fremont Transportation Engineering Division for review and approval.	Before the start of construction requiring traffic control.
City of Fremont	Encroachment permit	Construction within City of Fremont roads or ROWs.	Submit application to City of Fremont for review and approval.	Before the start of construction within City of Fremont roads or ROW.
City of San José	Traffic control plan	Any construction within public ROW.	Submit application and TCP to 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 of San José roads or ROWs.	Submit application to City of San José for review and approval.	Before the start of construction within City of San José roads or ROW.
City of Santa Clara	Traffic control plan	Any construction within public ROW.	Submit application and TCP to City of Santa Clara for review and approval.	Before the start of construction requiring traffic control.
City of Santa Clara	Encroachment permit	Construction within City of Santa Clara roads or ROWs.	Submit application to City of Santa Clara for review and approval.	Before the start of construction within City of Santa Clara roads or ROW.
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.
State Water Resources Control Board	CWA, National Pollutant Discharge Elimination System General Permit for Discharge of Construction Related Stormwater	SWPPP required 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.
California Department of Fish and Wildlife	Section 1602 Lake or Streambed Alteration Agreement	Potential impacts on CDFW jurisdictional water under Section 1602 of the California Fish and Game Code.	Submit application to CDFW for review and approval.	Before the start of construction within jurisdictional waters.
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.

TABLE 2-10
ANTICIPATED PERMITS AND APPROVALS[1]

Agency	Permit/Approvals[2]	Permit Trigger	Application Process	Timing
San Francisco Bay Conservation and Development Commission	Administrative permit	Construction within, over, or under BCDC jurisdiction	Submit application to BCDC for review and approval.	Before the start of construction within BCDC jurisdiction.
California Public Utilities Commission	California Public Utilities Code Section 1001 et seq. and CPUC General Order 131-E CPCN	Construction of transmission facilities governed by General Order 131-E.	Submit CPCN application and PEA to the CPUC. The CPUC would initiate CEQA process and make a proposed and final CPCN ruling.	Before the start of construction.
Regional Water Quality Control Board	CWA Section 401 water quality certification and/or Waste Discharge Requirement	Potential impacts on CWA jurisdictional waters.	Submit application to RWQCB for review and approval.	Before the start of construction within jurisdictional waters.
California State Lands Commission (CSLC)	Lease	Construction of transmission facilities on State owned property.	Submit application to CSLC for review and approval	Before the start of construction within CSLC owned property.
U.S. Army Corps of Engineers	CWA Section 404 Permit—Nationwide Permit	Potential cut or fill within CWA jurisdictional waters.	Submit Preconstruction Notification to USACE for review and approval.	Before the start of construction within jurisdictional waters.
U.S. Army Corps of Engineers	Section 408 Program (Rivers and Harbors Act of 1899)	Potential modification of USACE civil works projects (levees).	Submit application to USACE San Francisco District.	Before alteration of levees.
U.S. Army Corps of Engineers and California State Historic Preservation Office	National Historic Preservation Act Section 106 consultation	Federal Undertaking (USACE Section 404 and 408 permit processes).	USACE submits to SHPO for consultation.	Before issuance of USACE Section 404 or 408 permits.
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 biological assessment or HCP to USFWS for review and approval	Before the start of construction.
Federal Aviation Administration	Determination of No Hazard	Construction of overhead transmission line structures.	Submit application to FAA for review and approval.	Approximately 6 months 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 jack-and-bore.	Submit application to Union Pacific for review and approval.	Before the start of construction within or near Union Pacific ROW.

NOTES:

BCDC = San Francisco Bay Conservation and Development Commission; Caltrans = California Department of Transportation; CDFW = California Department of Fish and Wildlife; CEQA = California Environmental Quality Act; CPCN = Certificate of Public Convenience and Necessity; CPUC = California Public Utilities Commission; CWA = Clean Water Act; FAA = Federal Aviation Administration; HCP = habitat conservation plan; PEA = Proponent's Environmental Assessment; ROW = right-of-way; RWQCB = Regional Water Quality Control Board; SHPO = State Historic Preservation Office; State Water Board = State Water Resources Control Board; SWPPP = storm water pollution prevention plan; TCP = traffic control plan; USACE = U.S. Army Corps of Engineers; USFWS = U.S. Fish and Wildlife Service; Valley Water = Santa Clara Valley Water District

1. Permit requirements in this table apply only to LS Power Grid California and are separate from applicable permits for the Pacific Gas and Electric Company and Silicon Valley Power interconnection work.
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 Power the South Bay Project. In addition, some permits in this table may not be ultimately required.

SOURCE: LSPGC 2025

2.15 Applicant-Proposed Measures and Best Management Practices

PG&E and SVP are not applicants in the CPCN application proceeding and, therefore, would not be subject to the APMs listed in **Table 2-11**, *Applicant-Proposed Measures*. However, PG&E and SVP 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*, and Section 2.15.3, *SVP Construction Measures*.

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 implementation of the APMs to be monitored, documented, and enforced during each Project phase, as appropriate. LSPGC's construction contractors 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 implement standard BMPs, such as the following:

- The public would be restricted from entering construction work areas along the transmission line.
- 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 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.

TABLE 2-11
APPLICANT-PROPOSED MEASURES

APM Number	Description
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	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.
Biological Resources	
APM BIO-1: Restoration of Disturbed Areas	Once construction is complete in a given area, natural vegetation areas (annual grassland, annual grassland/wetland, riparian, wetland, and vernal pools) 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.

TABLE 2-11
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM BIO-2: Rare Plant Surveys	Protocol surveys following standard guidelines shall be conducted within suitable habitat areas for special-status plants that may occur within the Project impact areas during the appropriate blooming period to determine the location and extent of populations of rare plants, if present. In the event of the discovery of a rare 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 for ITP, as required. There are no CDFW-listed species that were analyzed, but CNPS species would require surveys and potential mitigation if they cannot be avoided. 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 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 take ITP or other authorization as well as any additional mitigation. 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. These surveys will be conducted within 30 days of the start of construction activities and after protocol surveys for individual species have been conducted. These surveys serve to doublecheck populations, nesting/breeding areas, and sensitive habitats that would be identified during protocol surveys and to ensure that these areas will be avoided by construction activities.
APM BIO-4: Sensitive Area Demarcation	All sensitive biological areas (including creeks, rivers, wetlands, vernal pools, 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 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.
APM BIO-7: Salt Marsh Harvest Mouse (SMHM) Surveys	Protocol surveys following standard guidelines shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for salt marsh harvest mouse (SMHM) by an approved biologist. In the event of the discovery of SMHM 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 prior to construction activity. Any other construction activities that may impact SMHM 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 live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to SMHM, such as allowing individuals to leave on their own or temporarily halting construction in areas where SMHM is present. All adjacent known SMHM preserve areas shall be clearly marked as well and avoided. This APM would be applied along the transmission line west of the proposed alignment in the vicinity of Coyote Creek Lagoon.

TABLE 2-11
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM BIO-8: 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-9: 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-10: Outdoor Lighting Measures	The use of outdoor lighting during construction and O&M shall be minimized whenever practicable. All lighting shall be selectively placed, shielded, and directed downward to the extent practicable. All lighting near sensitive species habitat shall be directed away from these areas 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. Night work is not anticipated during O&M except during emergencies.
APM BIO-11: Special-Status Bird Surveys	Protocol surveys following standard guidelines shall be conducted for California black rail, tricolored blackbird, California clapper rail, burrowing owl, golden eagle, and bald eagle and focused surveys shall be conducted for western snowy plover, white-tailed kite, 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 and burrowing owl are covered species under the Santa Clara Valley HCP; if impacts are identified during species-specific protocol 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 protocol surveys for the other State-listed avian species that are not covered under the Santa Clara Valley HCP (California black rail, California clapper rail, Western snowy plover, bald eagle, and any other avian 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-12: Nesting Bird Protection Measures	If feasible, LSPGC shall avoid certain construction activities such as vegetation trimming/removal during the migratory bird nesting or breeding season. When it is not feasible to avoid construction during the nesting or breeding season (generally February 15–August 31), **APM BIO-15** shall be used. Any 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-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.

TABLE 2-11
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM BIO-14: Golden Eagle Protection	The USFWS recommends a one mile no disturbance buffer around active nests during the active nesting season (USFWS 2021). LSPGC shall conduct an eagle nest survey within suitable nesting habitat prior to construction. If preconstruction surveys determine that there is an active golden eagle nest within the Survey Area, LSPGC shall consult with the agencies to identify an appropriate disturbance buffer based on existing conditions, including existing visual barriers, existing noise levels, existing high levels of human activity and vehicle traffic, and other factors. In lieu of placing an avoidance buffer, LSPGC could construct a barrier wall, outside of the nesting season, to obstruct construction activities from line of site from the nest. The barrier would also dampen noise from construction activities. A full-time biological monitor shall monitor the bird(s) for signs of distress. If signs of distress are identified, the biological monitor shall require construction to cease until the birds exhibit normal behavior.
APM BIO-15: Nesting Bird Surveys	Preconstruction nest surveys shall be conducted during the nesting or breeding season (generally February 15–August 31) within all proposed impact areas and suitable buffers within suitable habitat areas for Migratory Bird Treaty Act (MBTA)-protected birds. 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 avoidance buffer shall be implemented to ensure that the nesting or breeding activities are not affected. If the nesting or breeding activities by a Federal- or State-listed species are observed, LSPGC shall consult with the USFWS and CDFW as necessary. Monitoring of the nest shall continue until the birds have fledged or construction is no longer occurring on the site.
APM BIO-16: 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 vernal pool tadpole shrimp, vernal pool fairy shrimp, 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. If impacts are identified during species-specific surveys for verna pool tadpole shrimp, vernal pool fairy shrimp, monarch butterfly, Western bumblebee, or Crotch's bumblebee which are not covered under the Santa Clara Valley HCP, the take shall be covered under a Federal ITP (vernal pool tadpole shrimp; Federally Endangered, vernal pool fairy shrimp; Federally Threatened, monarch butterfly; Federal candidate species) or State ITP (Western bumblebee and 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-17: Wetlands, Vernal Pool, and Waterway Construction Timing Restrictions	Construction in the vicinity of waterways, wetlands, and vernal pools such as along the Cushing Parkway bridge that borders the Don Edwards San Francisco Bay National Wildlife Refuge (NWR), near vernal pools north of the existing PG&E Newark substation, and in the vicinity of Coyote Creek and Guadalupe River shall be restricted to occur during the dry season (generally from May 1st through October 15th) to the maximum extent possible. This would minimize the chance of encountering and impacting sensitive species such as vernal pool tadpole shrimp and California tiger salamander that can be found in annual grassland/wetland, wetland, and vernal pool habitat present in these areas as well as fish species such as steelhead, longfin smelt, and green sturgeon that could be using waterways. If construction cannot be conducted during the dry season in the vicinity of waterways, wetlands, and vernal pools, they would be clearly marked and avoided to the maximum extent possible and biological monitors would be present to ensure that no impacts occur.
APM BIO-18: Special-Status Amphibian Surveys	Protocol surveys shall be conducted for California tiger salamander and California red-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 and California red- 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. California tiger salamander and California red-legged frog are 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

TABLE 2-11
APPLICANT-PROPOSED MEASURES

APM Number	Description
	under a State ITP in consultation with CDFW. 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.
APM BIO-19: Wetland and Aquatic Resources Delineations	Pursuant to property owner approval, a wetland and aquatic resources delineation will be conducted for the portion of the proposed Newark to NRS 230 kV AC transmission line within Caltrans ROW containing potentially State or Federal jurisdictional waters. Accurate acreages of vernal pools and RWQCB, CDFW, and USACE jurisdictional waters will be defined from these delineations. Vernal pools and jurisdictional waters shall be marked as a sensitive area and shall be avoided to the extent practicable. If these areas cannot be avoided, applicable permits shall be obtained.
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: • 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 shall be conducted during initial ground disturbance associated with the Project when within 100 feet (30 m) of previously recorded prehistoric or 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 m) of previously recorded historic-period resources, or after unanticipated discovery of same. Prehistoric and/or ethnohistoric archaeological sites have been recorded adjacent to the Project area, and the Sacred Lands File (SLF) search and Tribal outreach indicate that lands sacred to the North Valley Yokuts Tribe and the Ohlone Indian Tribe are present within the Project search area. In addition, historic-era archaeological sites have been recorded within 100 feet (30 m) of the Project area. A qualified archaeologist, or an archaeological monitor under the supervision of 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, if 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 Assembly Bill 52 process or otherwise.

TABLE 2-11
APPLICANT-PROPOSED MEASURES

APM Number	Description
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 limits of construction for the proposed Newark to NRS transmission line within Caltrans ROW, and temporary construction Staging Areas 1, 4 through 8, 10, and part of 11, 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. 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.

TABLE 2-11
APPLICANT-PROPOSED MEASURES

APM Number	Description
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 bgs 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.
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	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 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 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.

TABLE 2-11
APPLICANT-PROPOSED MEASURES

APM Number	Description
APM HAZ-3: Compliance with the Covenant to Restrict Use of Property (CISCO Systems Site 6/Syntax Court Disposal Site)	Construction activities within the Cisco Systems Site 6/Syntax Court Disposal Site boundaries (as outlined in Figure 3.9-1, *Contaminated Sites Map*) shall comply with the Covenant to Restrict Use of Property and Environmental Restriction, signed May 23, 2003. Specific activities could include: a) Providing written notice to the Department of Toxic Substances Control (DTSC) at least 14 days prior to ground disturbing construction activities with the location of excavation, proposed depth, and soil management procedures. b) Conducting construction activities in accordance with the SMP and the Health and Safety Plan (2001 and 2015 update). c) Handling excavated soils in accordance with all applicable local, state, and federal regulations.
APM HAZ-4: Compliance with the Covenant and Agreement for Environmental Restriction (South Bay Asbestos Area)	Construction activities within the South Bay Asbestos Area site boundaries shall comply with the Covenant and Agreement for Environmental Restriction, signed October 21, 2004, by the property owner and the DTSC. Specific activities would include, but not necessarily be limited to, the following: a) Coordinating with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Lead Agency and gaining written approval for ground disturbing activities that could affect the soil cap. b) Preparing a SMP for any soils contaminated with asbestos or asbestos containing materials brought to the surface by grading, excavation, trenching, or backfilling.
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).
Recreation	
APM REC-1: Trail Management Plan	LSPGC shall coordinate with the City of Fremont, City of Milpitas, City of San José, City of Santa Clara, the National Park Service (NPS), Metropolitan Transit Commission (MTC), and the USFWS for the preparation of the Project TMP. The TMP shall identify if a detour route(s) is required, as well as provide for trail-specific traffic control and safety measures for pedestrians, trail users, and motorists. Measures that may be implemented by LSPGC as part of the TMP include, but are not limited to, provision of a crossing guard during periods of active construction along the portions of the trails that would be directly impacted by construction of the Project or designation of a detour route if use of a crossing guard is not practical. Signage and flagging may be used to help direct trail users and provide safety for both trail users and construction crews. A copy of the TMP shall be provided to CPUC for recordkeeping.

TABLE 2-11
APPLICANT-PROPOSED MEASURES

APM Number	Description
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. A copy of the TCP shall be provided to CPUC for recordkeeping.
APM TRA-2: Coordinate Bus Stop Closures	If bus stop closures are required for Project implementation, LSPGC shall coordinate closures with Santa Clara VTA and/or Alameda-Contra Costa County Transit ("AC Transit"), as appropriate, in advance of closure to minimize disruptions to service. Where disruptions to service are anticipated, advanced notice shall be given to allow transit users on effected 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 and AC Transit websites. Identification and implementation of specific measures shall be implemented in coordination with Santa Clara VTA and AC Transit.
APM TRA-3: Repair Infrastructure	Following construction, LSPGC shall confirm that contractors have repaired damage to roads, trails, and bicycle facilities resulting from Project construction activities. Existing conditions shall be documented to assure that roads, trails, and bicycle facilities are returned to preconstruction conditions. LSPGC shall confer with local agencies, as needed, to confirm repairs are 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 the North Valley Yokuts Tribe and the Ohlone Indian Tribe 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

TABLE 2-11
APPLICANT-PROPOSED MEASURES

APM Number	Description
	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 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; AC = alternating current; AC Transit = Alameda-Contra Costa County Transit; APM = Applicant-proposed measure; Cal/OSHA = California Occupational Safety and Health Administration; Caltrans = California Department of Transportation; CDFW = California Department of Fish and Wildlife; CEQA = California Environmental Quality Act; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CFR = Code of Federal Regulations; CNPS = California Native Plant Society; CPUC = California Public Utilities Commission; CRHR = California Register of Historical Resources; DOT = U.S. Department of Transportation; DPR = California Department of Parks and Recreation; DTSC = California Department of Toxic Substances Control; HCP = habitat conservation plan; HMMP = hazardous materials management plan; ITP = incidental take permit; kV = kilovolt; LSPGC = LS Power Grid California; m = meters; MBTA = Migratory Bird Treaty Act; mph = miles per hour; MTC = Metropolitan Transportation Commission; MUTCD = Manual on Uniform Traffic Control Devices; NAGPRA = Native American Graves Protection and Repatriation Act; NAHC = Native American Heritage Commission; NPS = National Park Service; NRS = Northern Receiving Station; NWR = National Wildlife Refuge; O&M = operation and maintenance; OSHA = Occupational Safety and Health Administration; PG&E = Pacific Gas and Electric Company; PRMMP = paleontological mitigation monitoring plan; Project = Power the South Bay Project; ROW = right-of-way; RWQCB = regional water quality control board; SDNHM = San Diego Natural History Museum; SLF = Sacred Lands File; SMHM = salt marsh harvest mouse; SMP = soil 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

Any spills or hazardous materials would be addressed according to the SWPPP, SPCCP, and HMMP (as identified in the APMs) 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 be responsible for the review and documentation of such activities. Field notes and digital photographs would be used to document and describe the status of APMs, as necessary.

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. PG&E's construction contractors 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 be responsible for the review and documentation of such activities. Field notes and digital photographs would be used to document and describe the status of BMPs as necessary.

TABLE 2-12
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

BMP or FP Number	Description
Air Quality	
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.
BMP AQ-2: 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

TABLE 2-12
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

BMP or FP Number	Description
	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.
BMP AQ-3: 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. *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.
BMP AQ-4: 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.
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.

TABLE 2-12
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

BMP or FP Number	Description
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.
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.
BMP BIO-1: 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.
BMP BIO-2: 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.

TABLE 2-12
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

BMP or FP Number	Description
Cultural Resources	
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.
BMP CULT-2: 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.
BMP CULT-3: 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	
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.

TABLE 2-12
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

BMP or FP Number	Description
Hazards, Hazardous Materials, and Public Safety	
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.
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.
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.

TABLE 2-12
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

BMP or FP Number	Description
	• 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.
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.
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.
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 SF_6 in all facilities. ASG provides 24-hour service in response to events involving SF_6 as well as delivery and removal of all SF_6 cylinders. • Contact information: https://www.advancedspecialtygases.com.

TABLE 2-12
PG&E BEST MANAGEMENT PRACTICES AND FIELD PROTOCOLS

BMP or FP Number	Description
	Before accessing any equipment that may contain SF_6 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 SF_6 byproduct waste (i.e., fluorides of sulfur, metallic fluorides, etc.). All SF_6 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). • SF_6 cylinder tracking and facility inventory shall be managed in accordance with Utility Procedure TD-3350P-001.
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.
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).
BMP HAZ-9: Vault Dewatering	Vault dewatering may be required. All vault dewatering must take place in accordance with the Vault Dewatering form.
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.
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.

NOTES:

AB = Assembly Bill; bhp = brake horsepower; ASG = Advanced Specialty Gas; 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; CRS = cultural resources specialist; EFS = environmental field specialist; EPA = Environmental Protection Agency; 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; OFEE = oil-filled electrical equipment; PCB = polychlorinated biphenyl; PERP = Portable Equipment Registration Program; PG&E = Pacific Gas and Electric Company; ppm = parts per million; ROW = right-of-way; SF_6 = sulfur hexafluoride; SME = subject matter expert; SPCC = spill prevention, control, and countermeasure; SWPPP = storm water pollution prevention plan; TSDF = treatment, storage, and disposal facility

SOURCE: LSPGC 2024

2.15.3 SVP Construction Measures

SVP has not identified any construction measures that would be applicable to its scope of work for the Project (see Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*). However, before construction, SVP may develop specific construction measures. These construction measures, if implemented, would be consistent with the Project APMs.

SVP would be expected to oversee the construction and environmental teams that would implement any identified construction measures. SVP would be expected to provide relevant permits, conditions, and construction measures, along with instructions for properly implementing the measures to ensure their effectiveness.

As with LSPGC and PG&E, if conditions occur where construction would have the potential to adversely affect a known or previously unknown environmentally sensitive resource, or if construction activities significantly deviate from Project requirements, SVP would have the authority to halt construction activities for its portion of work for the Project, if needed, until an alternative method or approach can be identified. Any concerns that arise during implementation of any identified construction measures are expected to be communicated to the appropriate authority to determine whether corrective action is required, or the concerns would be addressed on-site, as applicable. If construction measures are implemented, SVP is expected to be responsible for the review and documentation of such activities. Field notes and digital photographs would be used to document and describe the status of construction measures, as necessary.

2.16 References

APLIC (Avian Power Line Interaction Committee). 2006. Suggested Practices for Avian Protection on Power Lines. The State of the Art in 2006.

APLIC (Avian Power Line Interaction Committee). 2012. Reducing Avian Collisions with Power Lines: The State of the Art in 2012.

CPUC (California Public Utilities Commission). 2020. General Order No. 95. Rules for Overhead Electric Line Construction.

CPUC (California Public Utilities Commission). 2023. General Order 131-D.

CPUC (California Public Utilities Commission). 2025. General Order 131-E.

Jackman, A. 2025. Power the South Bay Project - SVP Interconnection Construction Schedule. Email from A. Jackman (Division Manager, Silicon Valley Power) to V. Molina (Environmental Planner, Environmental Science Associates). April 29, 2025.

LSPGC (LS Power Grid California). 2025. Application of LS Power Grid California, LLC (U-247-E) for a Certificate of Public Convenience and Necessity Authorizing Construction of the Power the South Bay Project. Amended February 28, 2025.

Occupational Safety and Health Administration (OSHA). 2025. *Extremely Low Frequency (ELF) Radiation.* Available: Extremely Low Frequency (ELF) Radiation - Overview | Occupational Safety and Health Administration. Accessed February 2025.

USFWS (U.S. Fish and Wildlife Service). 2021. Recommended Buffer Zones for Ground-based Human Activities around Nesting Sites of Golden Eagles in California and Nevada. May 2021.

CHAPTER 3
Environmental Analysis

3.0 Introduction to the Environmental Analysis

3.0.1 Overview

This chapter describes and analyzes the direct, indirect, and cumulative environmental impacts of the Power the South Bay 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 and Tribal 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, 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 July 29, 2024, the date the Notice of Preparation (NOP) for this Draft EIR was published. The NOP for this Draft EIR is included in **Appendix B**, *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.

[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.

(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 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 alignment 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 site, 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.

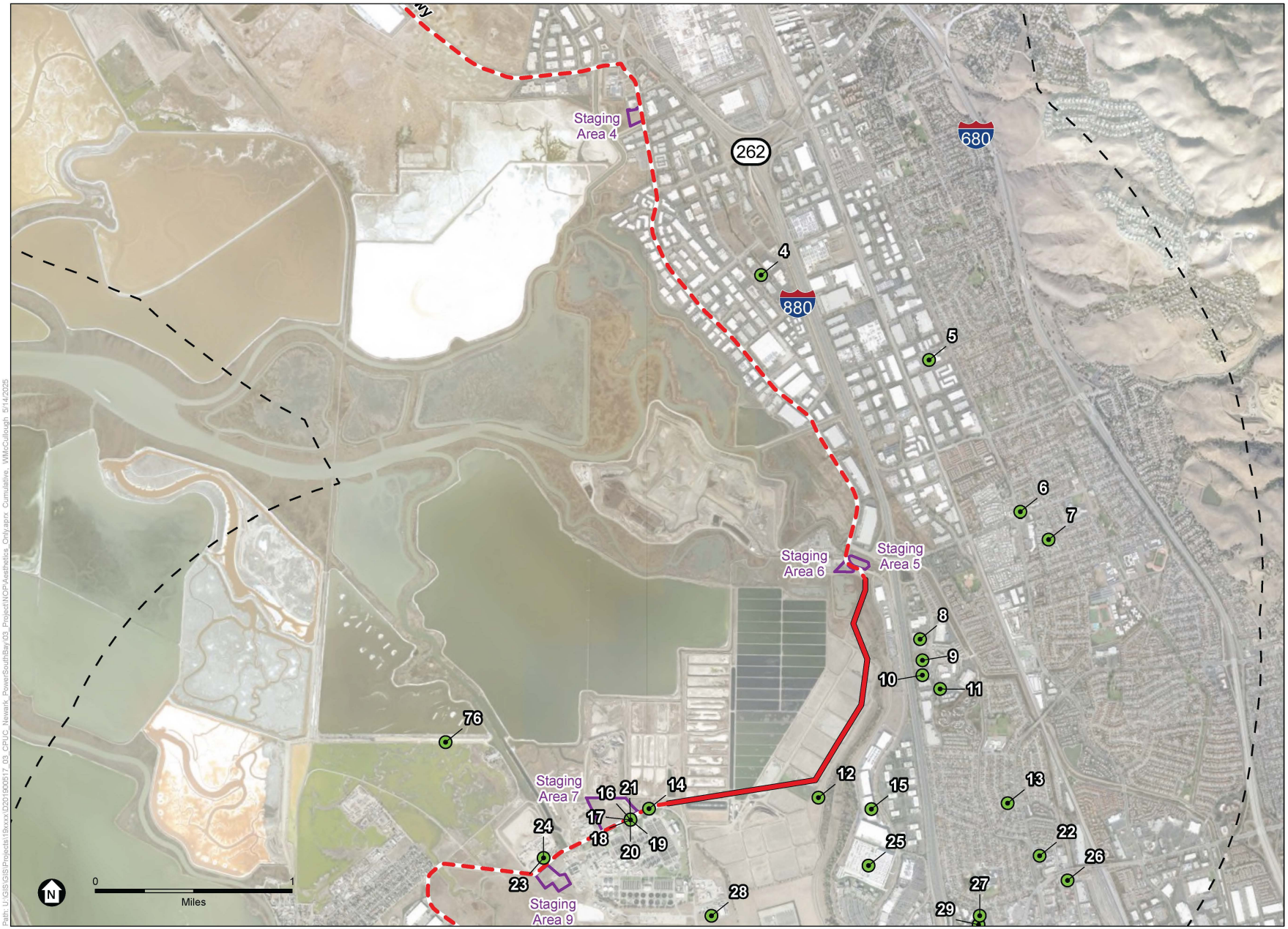
SOURCE: Data compiled by Environmental Science Associates, 2025

- Cumulative Project
- Newark to NRS 230 kV AC Transmission Line (Overhead)
- Newark to NRS 230 kV AC Transmission Line (Underground)
- Staging Area
- 2 Mile Project Buffer

Power the South Bay

Figure 3.0-1a
Cumulative Projects

ESA



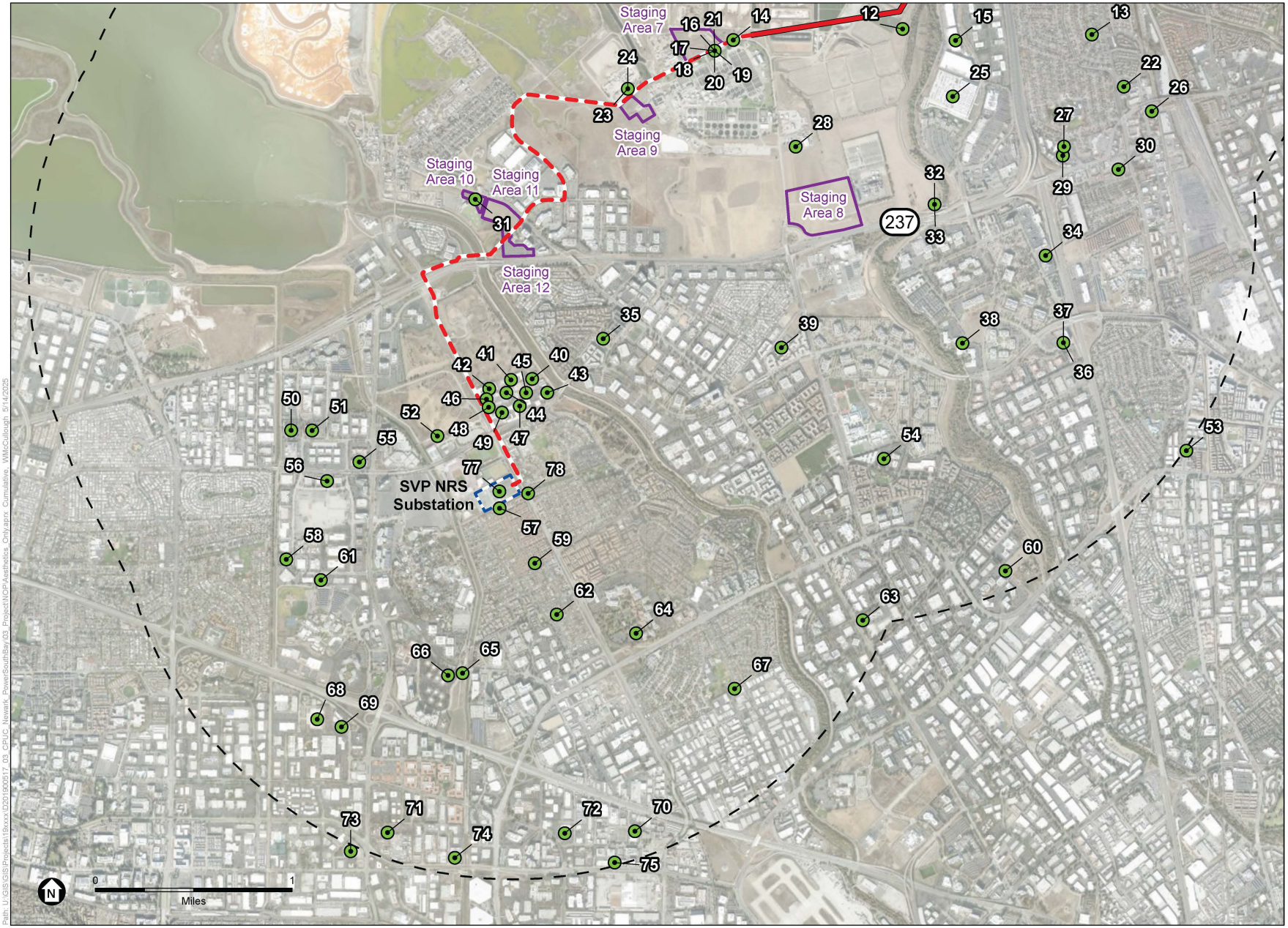
SOURCE: Data compiled by Environmental Science Associates, 2025

- Cumulative Project
- Newark to NRS 230 kV AC Transmission Line (Overhead)
- Newark to NRS 230 kV AC Transmission Line (Underground)
- Staging Area
- 2 Mile Project Buffer

Power the South Bay

Figure 3.0-1b
Cumulative Projects

ESA



SOURCE: Data compiled by Environmental Science Associates, 2025

- Cumulative Project
- Newark to NRS 230 kV AC Transmission Line (Overhead)
- Newark to NRS 230 kV AC Transmission Line (Underground)
- Staging Area
- 2 Mile Project Buffer

Power the South Bay

Figure 3.0-1c
Cumulative Projects

ESA

TABLE 3.0-1
CUMULATIVE PROJECTS LIST

Cumulative Map #	Project	Description	Location	Approximate distance and direction to Project	Project Status
1	5780 Cushing Pkwy	Addition of 2,420 square feet to an existing car dealership show room, expansion of 1,453 square feet to its service canopy, and update front façade with current corporate branding. New offices in the administration area of the service building. On-site improvements for ADA compliance.	5780 Cushing Parkway, Fremont	0.03 mile northwest	Currently in review (City of Fremont 2025a)
2	3300 Innovation Way	Conformance review for the construction of 242,804 square feet, six-level parking garage wrapped by a mixed-use apartment building. 336 units Type III construction with resident amenities and retail.	3300 Innovation Way, Fremont	1.5 miles northwest	Under Consideration (City of Fremont 2025b)
3	44408 Pacific Commons Blvd	Install Bloom Energy Fuel Cell system with electrical and plumbing worked associated with system.	44408 Pacific Commons Blvd, Fremont	0.03 mile northeast	Various – Under Consideration and Decision Made (City of Fremont 2025c)
4	47200 Bayside Pkwy	New construction light industrial warehouse campus totaling approximately 470,000 square feet across 6 buildings.	47200 Bayside Pkwy, Fremont	0.3 mile northeast	Under Consideration (City of Fremont 2025d)
5	280 Whitney Place, Fremont	Construct new approximately 43,006 square foot, approximately 45 foot tall concrete tilt-up industrial building with interior mezzanine and new mechanical, electrical, and plumbing services. Includes 4,500 square feet of office area. Demolish existing parking lot improvements and clear the site.	280 Whitney Pl, Fremont	0.7 mile east	Various – Under Consideration and Decision Made (City of Fremont 2025e)
6	1880 N Milpitas Blvd, Milpitas	Multi-Family Residential facility type.	1880 N Milpitas Blvd, Milpitas	0.9 mile east	Building permit filed (City of Milpitas 2025a)
7	1724 Sunnyhills Ct, Milpitas	Multi-family residential facility - Sunny Hills.	1724 Sunnyhills Ct, Milpitas	1 mile east	Planning permit approved (City of Milpitas 2025b)
8	1355 California Circle	Townhomes by developer Pulte Homes.	1355 California Circle, Milpitas	0.4 mile east	Planning permit approved (City of Milpitas 2025c)
9	1301 California Cir, Milpitas	Hotel facility - Hilton Home2.	1301 California Cir, Milpitas	0.2 mile east	Planning permit approved (City of Milpitas 2025d)
10	1201 Cadillac Ct, Milpitas	Hotel - Springhill Suites.	1201 Cadillac Ct, Milpitas	0.2 mile east	Under construction (City of Milpitas 2025e)
11	1100 Cadillac Ct, Milpitas	Hotel - Holiday Inn.	1100 Cadillac Ct, Milpitas	0.5 mile east	Under construction (City of Milpitas 2025f)
13	230 Uvas Street, Milpitas	Single family residential facility.	230 Uvas St, Milpitas	0.9 mile east	Planning permit approved (City of Milpitas 2025g)
14	Caltrans Expansion of Zanker Road	Expansion of Zanker Road from a two-lane road to a four-lane road, plus a Class IV protected bike lane from CA-237	Zanker Road	0 mile	Planning, timing unknown (City of San José 2025a)
15	625 N McCarthy Blvd, Milpitas	Commercial facility - Creekside Milpitas.	625 N McCarthy Blvd, Milpitas, CA 95035, USA	0.3 mile southeast	Under construction (City of Milpitas 2025h)

TABLE 3.0-1
CUMULATIVE PROJECTS LIST

Cumulative Map #	Project	Description	Location	Approximate distance and direction to Project	Project Status
16	San Jose-Santa Clara Regional Wastewater Facility (RWF) Capital Improvement Program (CIP)	The CIP plans, designs, and constructs projects recommended by the 2013 Plant Master Plan, which envisions $2 billion in Facility investments over a 30-yearspan.	700 Los Esteros Rd, San Jose, CA 95134	0 mile	Construction (City of San José 2025a)
17	RWF Digested Sludge Dewatering Project	The project will build a new mechanical dewatering facility and associated support facilities. Once beneficial use has been reached, the project will begin daily hauling of dewatered biosolids to beneficial reuse sites.	Near 700 Los Esteros Rd, San Jose, CA 95134	0 mile	Construction
18	RWF P3 Biosolids Facility Project	The RWF will develop a facility in partnership with the private sector that processes at least 50% of the dewatered biosolids from San José-Santa Clara Regional Wastewater Facility (RWF) in a safe; reliable; and commercially, environmentally, and economically feasible manner to expand the beneficial use management options available to the RWF.	Near 700 Los Esteros Rd, San Jose, CA 95134	0 mile	Planning (City of San José 2025a)
19	RWF Residual Solids Management (RSM) Annual Biosolids Hauling	The RSM operational area is closed September – November for annual haulage of dried biosolids to Newby Island Landfill for use as daily cover.	Near 700 Los Esteros Rd, San Jose, CA 95134	0 mile	Operations (City of San José 2025a)
20	RWF Legacy Lagoons Cleanup Phase II	Consolidate and cap legacy biosolids in 23 lagoons from operations that occurred prior to 1972. Phase I consisted of consolidation of biosolids from lagoons 16 – 19 in lagoons 9 – 10. Lagoons 16 – 19 will be transferred to the Shoreline Levee Project. Phase II consists of consolidation of biosolids from the remaining lagoons into lagoons 9 – 10.	Near 700 Los Esteros Rd, San Jose, CA 95134	0 mile	Phase II construction to follow Shoreline Levee Project. Anticipated to begin Spring 2027 and be completed by 2032 (City of San José 2025a)
21	RWF Direct Potable Reuse	6-inch to 12-inch or 12-inch to 18-inch diameter pipeline for a reverse osmosis system. Expected construction 2030 – 2032.	Near 700 Los Esteros Rd, San Jose, CA 95134	>0.5 mile	Planning
22	164 N Abel St	New Daycare Facility - school facility. Learn and Play Montessori School.	164 N Abel St, Milpitas, CA 95035	1 mile southeast	Building permit issued (City of Milpitas 2025q)
23	San Jose Water (SJW) Desalination	500 feet to 1,000 feet deep wells to lateral lines. SJW currently performing exploratory drilling north of Los Esteros Road.	Near 675 Los Esteros Rd, San Jose, CA 95134	0.7 mile west	Planning (City of San José 2025a)
24	LS Power & San José Power Interconnect	50 MW for critical infrastructure at RWF and San José Airport.	Near 675 Los Esteros Rd, San Jose, CA 95134	0 mile	Planning, anticipated 2026 or later (City of San José 2025a)
25	205 N McCarthy Blvd, Milpitas	Light industrial facility - Bridge Development.	205 N McCarthy Blvd, Milpitas	0.5 mile southeast	Under construction (City of Milpitas 2025r)

TABLE 3.0-1
CUMULATIVE PROJECTS LIST

Cumulative Map #	Project	Description	Location	Approximate distance and direction to Project	Project Status
26	New Assembly	Private Development.	27 E Carlo St, Milpitas	1.4 miles southeast	Planning Permit Filed (City of Milpitas 2025j)
27	25 South Abbot Ave, Milpitas	Retail food or drink. Mobile Food Service area.	25 South Abbot Ave, Milpitas	1.2 miles southeast	Planning permit approved (City of Milpitas 2025s)
28	Advanced Water Purification Center Expansion	The Purified Water Project will help meet Santa Clara County water supply goals, which includes providing at least ten percent of water demand in Santa Clara County through recycled and purified water. Phase 1 consists of a flagship demonstration facility and visitor/educational center east and south of existing facility. Phase 2 consists of full capacity buildout.	4190 Zanker Rd, San Jose, CA 95134	>0.5 mile	Planning
29	Sobrato	Private Development – Facility type: Townhomes.	Valley Way, Milpitas, CA, 95035, USA	1 mile southeast	Planning Permit Filed (City of Milpitas 2025i)
30	Amnesia Banquet Facility	Private Development.	200 Serra Way, Milpitas, CA 95035	1.4 miles southeast	Planning Permit Filed (City of Milpitas 2025l)
31	7 Topgolf Drive, San José	Plans include 804 apartments across eight structures. The application is using Senate Bill 330 and will likely use the State Density Bonus to achieve the intended residential capacity. Further details remain scarce from the preliminary application.	7 Topgolf Drive, San José	0.2 mile north	Planning Permit Filed (Nelson 2023)
32	237 Industrial Center Project	The project site, approximately 64.5 acres, is primarily fallow farmland with two single-family houses, a mobile home, and farm-related accessory structures located near the southern portion of the site. The project includes two development options. Option 1 proposes approximately 1.2 million square feet of light industrial development and Option 2 proposes a 436,880 square foot data center (49.5 megawatts) with a PG&E substation to provide the electrical needs for the data center on approximately 26.5 acres of the site and approximately 728,000 square feet of light industrial development.	1657 Alviso-Milpitas Road, NW Hwy 237 and McCarthy Blvd, San José	1 mile south	Planning Permit Filed (City of San Jose 2017)
33	Microsoft Data Center	Microsoft Corporation (Applicant) proposes to construct and operate the San José City Data Center (SJC02) located at 1657 Alviso-Milpitas Road in San José, California. SJC02 will consist of two single-story data center buildings. The maximum electrical load of the project will be 99 megawatts (MW), although the estimated load is 92 MW, inclusive of information technology (IT) equipment, ancillary electrical/telecommunications equipment, and other electrical loads (administrative, heat rejection, and safety/security).	1657 Alviso-Milpitas Road	1 mile south	Exempted (CEC 2025; Microsoft 2019)
34	600 Barber Ln	Private Development – Muti-Family Residential.	600 Barber Ln, Milpitas, CA 95035	1.4 miles southeast	Planning Permit Approved (City of Milpitas 2025m)

TABLE 3.0-1
CUMULATIVE PROJECTS LIST

Cumulative Map #	Project	Description	Location	Approximate distance and direction to Project	Project Status
35	Charities Housing/Vista Montana	SB 35 Ministerial Permit for two 7-story buildings of 100% affordable housing consisting of 509 rental units including two managers' units with a 2-level parking garage consisting of 330 parking spaces, including 1,783 sq. ft. of Library and 5,071 sq. ft. of childcare facility.	71 Vista Montana Street, San José	0.7 mile east	Planning review (Team YIMBY 2021)
36	AC Hotel	Developer name – Trevor Edwards; Facility Type: Hotel (Milpitas 2024).	521 Alder Dr, Milpitas, CA 95035	1.9 miles southeast	Planning Permit Approved (City of Milpitas 2025o)
37	Element Hotel	Developer name – Trevor Edwards; Facility Type: Hotel	521 Alder Dr, Milpitas, CA 95035	1.9 miles southeast	Planning Permit Filed (City of Milpitas 2025p)
38	New monopine unmanned telecom facility	Private Development.	1001 Murphy Ranch Rd, Milpitas, CA 95035	1.8 miles southeast	Planning Permit Filed (City of Milpitas 2025n)
39	Summerhill Baypointe	Site Development Permit to allow demolition of existing 67,045 square feet commercial building and construction of 292-unit apartment building and 42 townhome condominiums on approximately 4.3-gross acre site.	210 Baypointe Pkwy, San José, CA 95134	1.5 miles south	Planning review (City of San José 2025)
40	Tasman East - 2200 Calle De Luna (Holland)	As part of the Tasman East Specific Plan, Holland Partner Group is proposing to replace an existing light industrial building with 580 residential units in two 12-story buildings and one 11-story building with basement and garage parking. The property is zoned Transit Neighborhood.	2200 Calle De Luna, Santa Clara, CA 95054	0.01 mile east	Approved (City of Santa Clara 2025b)
41	Tasman East - 2263 Calle Del Mundo (Ensemble)	The 1.95-acre proposed project is within the Tasman East Specific Plan area and includes a mixed-use, mid-rise building with approximately 301 residential units, accessory residential amenity, and structured parking.	2263 Calle Del Mundo, Santa Clara, CA 95054	0.2 mile east	Approved (City of Santa Clara 2025a)
42	Tasman East - 2343 Calle Del Mundo (Summerhill)	SummerHill Apartment Communities proposes to demolish three existing light industrial buildings on a 3.06- acre site within the Tasman East Specific Plan area and replace them with one 347- unit apartment building and dedicate 0.4178 acre to be a City of Santa Clara park, which will include a dog park and children's play area. The proposed park also includes walking and bicycling paths which will connect into the broader Tasman East bicycle and pedestrian network. The proposed apartment building will include two stories of above-ground parking, seven stories of residential units with associated building amenities, and a community garden. SummerHill proposes a total of 275,000 square feet of new residential area with 396 vehicular parking spaces and 24 bicycle parking spaces. The proposed project will include street and utility improvements and a lot line adjustment and merger to create two new parcels (one for residential and one for city park).	2343 Calle Del Mundo, Santa Clara, CA 95054	0.01 mile east	Under construction (City of Santa Clara 2025d)

TABLE 3.0-1
CUMULATIVE PROJECTS LIST

Cumulative Map #	Project	Description	Location	Approximate distance and direction to Project	Project Status
43	Tasman East - 2101 Tasman Drive (Related)	Architectural Review of two potential design schemes. Both include development of a 1.5-acre park.	2101 Tasman Drive, Santa Clara, CA 95054	0.2 mile east	Approved (City of Santa Clara 2025g)
44	Tasman East - 2302/2310 Calle Del Mundo (Ensemble)	Architectural Review of up to 150 multi-family units, a parking structure and 5,000 square feet of general retail in an eight-story building. The proposed project is located within the Tasman East Specific Plan area, Parcel 24, measuring approximately 0.77 acre and is bound to the north by Calle Del Mundo and to the east by the future Calle Del Sol extension.	2302 Calle Del Mundo, Santa Clara, CA 95054	0.1 mile east	Under construction (City of Santa Clara 2025e)
45	Tasman East - 2225 Calle de Luna & 2232 Calle del Mundo	This project proposes demolishing the two existing 2-story buildings totaling 27,000 square feet to construct a 371-unit multi-family housing development in two 8-story buildings on two parcels with a total lot area of 2.024 acres. Proposal includes 306 parking spaces.	2225 Calle de Luna & 2232 Calle del Mundo, Santa Clara, CA 95054	0.2 mile east	Approved (City of Santa Clara 2025c)
46	Tasman East - 2354 Calle Del Mundo (Ensemble)	This project proposes demolishing an existing 6,712 square-foot commercial building to construct a new 89- unit mid-rise apartment community on a 19,998 square-foot site within the Tasman East Specific Plan area.	2354 Calle Del Mundo, Santa Clara, CA 95054	0.02 mile east	Approved (City of Santa Clara 2025f)
47	Tasman East - 5123 Calle Del Sol (Ensemble)	Architectural Review of 503 residential units and 23,870 square feet of retail space on Parcel 19 (mid-rise building) and Parcel 29 (high-rise building) in the Tasman East Specific Plan area. Parcel 19 consists of 311 units with amenity space and 15,870 square feet of retail space on 1.87 acres. Parcel 29 consists of 192 units with amenity space and 8,000 square feet of retail space on 0.75 acres. The existing industrial buildings will be demolished. The project aims to promote a reduction of on- site resource usage, drought tolerant landscape approaches, storm water solutions, on-site electric vehicle charging stations, and green building strategies.	5123 Calle Del Sol, Santa Clara, CA 95054	0.15 mile east	Under construction (City of Santa Clara 2025i)
48	Tasman East - 5185 Lafayette (Ensemble)	The proposed 21-story project, which is included in the adopted Tasman East Specific Plan area, includes 198 residential units with approximately 300- 200 parking spaces, 100-120 bicycle spaces, amenity spaces, and 3,008 square feet of retail/flex space on the first floor.	5185 Lafayette Street, Santa Clara, CA 95054	0.01 mile east	Approved (City of Santa Clara 2025h)
49	Tasman East - 2300 Calle De Luna (Related)	Proposed development of a 5.52-acre site within the Tasman East Specific Plan area. The project includes 509 residential units, 191 senior assisted living units, 19,410 square feet of retail, 15,737 square feet of flexible and amenity space, and a 0.5-acre park. Two residential towers, one 20-story Home for the Ambulatory Aged and one 22-story rental housing tower, will be developed as high-rise towers over mid- rise/podium garages.	2300 Calle De Luna, Santa Clara, CA 95054	0.01 mile east	Under construction (City of Santa Clara 2025j)

TABLE 3.0-1
CUMULATIVE PROJECTS LIST

Cumulative Map #	Project	Description	Location	Approximate distance and direction to Project	Project Status
50	5200 Patrick Henry Drive - Arista Office Development	The project includes demolition of the existing one-story building, and construction of a new four- story office and engineering building with one level of subsurface parking, at-grade parking, and associated site improvements on a 5.63-acre site at the northwest corner of Patrick Henry Drive and Bunker Hill Lane. The new building will be approximately 362,660 square feet and includes an office and engineering building, subsurface parking, and a 10-megawatt (MW) data center with closed-loop cooling. The project would not include emergency power backup generators, cogeneration facilities, or electrical substations. The site is zoned ML - Light Industrial.	5200 Patrick Henry Drive, Santa Clara, CA 95054	1 mile west	Approved (City of Santa Clara 2025k)
51	5201 Patrick Henry Drive – Office and Prefabrication Facility	Architectural Review for a partial exterior demolition, removal of the mechanical penthouse, approximately 7,534 square foot addition, and interior renovations of an existing 144,390 square feet three-story office building resulting in a 113,272 square feet ft office and prefabrication facility with 248 parking spaces, and associated landscape and site improvements. The project includes a Zoning Administrator Minor Modification for the required parking (279 parking spaces).	5201 Patrick Henry Drive Santa Clara, CA 95054	1 mile west of Project	Approved (City of Santa Clara 2025ff)
52	Related Santa Clara	Description: Construction of a new multi- phased, mixed-use development of up to 9.16 million gross square feet of office buildings, retail and entertainment facilities, residential units, hotel rooms, surface and structured parking facilities, new open space and roads, landscaping and tree replacement, and new/upgraded/expanded infrastructure and utilities.	5155 Stars & Stripes Drive, Santa Clara, CA 95054	0.01 mile west	Pending review (City of Santa Clara 2025l)
53	27 S Main Street	Private Development. Facility Type: Multi-Family Residential.	27 S Main St, Milpitas	1.4 miles southeast	Planning Permit Filed (City of Milpitas 2025k)
54	211-281 River Oaks Parkway Residential Project	Site Development Permit to allow the demolition of three buildings totaling approximately 164,606 square feet and the removal of 220 trees (142 ordinance size, 78 non-ordinance-size) for the construction of a 737-unit multifamily residential development on an approximately 9.82-gross acre site. Construction would begin in November 2026 and end in August 2028.	211-281 River Oaks Parkway, in between Iron Point	2.1 miles south	Under Review (City of San Jose 2024b)
55	Great America Parkway/Tasman Drive Office Project (Menlo Equities)	General Plan Amendment from Low Intensity Office to High Intensity Office and Rezoning from Light Industrial (ML) to Planned Development (PD) of a 10-acre site located at 2901 Tasman Drive. Project includes demolition of four existing 2-story buildings, and construction of a new 12- story office building, a new 2-story amenity building, and a new 8-story parking structure.	2901 Tasman Drive, Santa Clara, CA 95054	0.7 mile west	Pending review (City of Santa Clara 2025m)

TABLE 3.0-1
CUMULATIVE PROJECTS LIST

Cumulative Map #	Project	Description	Location	Approximate distance and direction to Project	Project Status
56	Mission Point by Kylli Project	General Plan amendment for a nine-parcel property to amend the designation from High-Intensity Office/Research to a newly-established mixed-use designation allowing a high- intensity mix of office, commercial, and residential uses. The Project proposes a PD rezone for the development of 3,000,000 +/- square feet of commercial office/lab space, 100,000 +/- square feet of neighborhood retail, 1,800 +/- new multi-family residential, a childcare facility, and indoor and outdoor community spaces, as well as a large network of diverse, accessible and interconnected park, trail, and open spaces, and related infrastructure improvements.	3005 Democracy Way, Santa Clara, CA 95054	0.8 mile west	Approved (City of Santa Clara 2025n)
57	2303 Gianera Street – Planned Development	The proposed project is to rezone the property from R1-6L – Single Family to PD – Planned Development, construct eight single-family units in four separate structures, and subdivide the property to create eight individual lots and one common area. Seven of the eight units are proposed to be market-rate, one unit is proposed to be an affordable moderate rate income unit.	2303 Gianera Street Santa Clara, CA 95054	0.02 mile south	Pending review (City of Santa Clara 2025x)
58	4590 Patrick Henry Drive Residential Project	Architectural Review for the demolition of the existing 42,821 square-foot industrial building and construction of an eight-story, 284-unit multifamily residential building within the Patrick Henry Drive Specific Plan Area. The project includes a tentative parcel map to subdivide the existing parcel into two parcels for the development of a 0.55-acre park that will be dedicated to the City.	4590 Patrick Henry Drive Santa Clara, CA 95054	1.12 mile southeast	Approved (City of Santa Clara 2025ee)
59	4503 Cheeney – Six Unit Single-family Development	The proposed project is the development of six new single family detached homes, each proposed home is more or less 2,772 square feet, with one unit being deemed affordable at the moderate level. The applicant has requested waivers and a concession for the project. The development will include the demolition of an existing single-family home on the property.	4503 Cheeney Street Santa Clara, CA 95054	0.4 mile southeast	Pending review (City of Santa Clara 2025dd)
60	Seely Avenue Mixed-use Project	The project is a Planned Development Rezoning to a Industrial Park IP(PD) Planned Development Zoning District and a Planned Development Permit to allow demolition of existing residential and agricultural buildings and removal of 584 trees (261 ordinance-size trees and 323 non-ordinance-size trees) for development of 1,472 residential units consisting of a mix of three-story townhomes and six- to seven-story apartment buildings, 18,965 square feet of general neighborhood retail space, and a 2.5-acre public park. The project also includes the dedication of an approximately 0.11-acre site to the San Jose Municipal Water System for the development of a domestic water well. Construction start anticipated June 2024 and end on October 2028.	0 Seely Avenue, San José, CA 95134	2.9 miles south/southeast	Planning approved (City of San José 2024)

TABLE 3.0-1
CUMULATIVE PROJECTS LIST

Cumulative Map #	Project	Description	Location	Approximate distance and direction to Project	Project Status
61	3000 Patrick Henry Drive	Architectural Review for a for a seven-story, 307-unit mixed-use building containing a 5,000 square-foot Community Arts Center space, an approximately 9,250 square-foot dedicated Art Park, and 4,000 square feet of retail space. The project involves demolition of the existing one- story, 37,000 square-foot light industrial building.	3000 Patrick Henry Drive, Santa Clara, CA 95054	1 mile southwest	Approved (City of Santa Clara 2025o)
62	4249 Cheeney Street	Architectural Review, Rezone from R1-6L to R2, General Plan Amendment to change from Very Low Density to Low Density Residential and a Tentative Map to construct nine two-story townhomes with individual at-grade garages. Each townhome would have three bedrooms and two and a half bathrooms.	4249 Cheeney Street Santa Clara, CA 95054	0.6 mile southeast	Pending review (City of Santa Clara 2025cc)
63	The Station on North First	Demo of 8 existing industrial buildings totaling 364,854 square feet and construction of up to 1,653,761 square feet industrial office and commercial support on 24.3 gross acres.	2890 N. First St. between Zanker, N First St and East Plumeria Dr, San Jose, CA, 95134	1.9 miles south	Planning approved (City of San José 2025b)
64	4220 Network Circle	Builder's Remedy Application to develop the 38-acre site with a total of 584 units - 120 affordable apartments, 416 townhomes in three distinct neighborhoods in combination of 48 single-family dwellings with open space and parking spaces.	4220 Network Circle Santa Clara, CA 95054	1 mile southeast	Pending review (City of Santa Clara 2025bb)
65	3905 Freedom Circle Mixed-Use Project	This project proposes a General Plan Amendment and Re-zoning to Planned Development to construct a mixed- use development project on a 13.3-acre site within the Freedom Circle Focus Plan area, that consists of up to 1,100 residential units with 1,540 parking spaces, up to 2,000 square feet of commercial space with 10 parking spaces and a 2-acre public park.	3905 Freedom Circle, Santa Clara, CA 95054	1.3 miles south	Approved (City of Santa Clara 2025p)
66	2518 Mission College Blvd. – Santa Clara Park Residential Project	General Plan Amendment, Rezoning and Architectural Review to construct 1,792 apartment units with approximately 1,747,900 square feet of residential buildings and 1,087,930 square feet of garage and 3,500 square feet of retail space on a 25.74-acre parcel in Freedom Circle Focus Area. Project proposal also includes a Tentative Map to subdivide the parcel into six lots.	2518 Mission College Santa Clara, CA	0.9 mile south	Pending review (City of Santa Clara 2025y)
67	3575 De La Cruz Boulevard Residential Project	Architectural Review for 15 Condominium units on an approximately 0.69-acre vacant City-owned parcel. Project utilizes Assembly Bill (AB) 3194.	3575 De La Cruz Boulevard, Santa Clara, CA 95054	1.6 miles southeast	Approved (City of Santa Clara 2025q)
68	3625 Peterson Way Office Project	Architectural review of two new, eight-story office buildings connected by bridges at two levels, a four-level parking structure with attached amenity building that includes a roof	3625 Peterson Way, Santa Clara, CA 95054	1.6 miles southwest	Under construction (City of Santa Clara 2025r)

TABLE 3.0-1
CUMULATIVE PROJECTS LIST

Cumulative Map #	Project	Description	Location	Approximate distance and direction to Project	Project Status
		deck, surface parking, site landscaping and variance to increase maximum building height from 70 feet to 129 feet (with top of roof screen at 138.5 feet). The total building area is 695,435 square feet, and the proposed project includes demolition of existing structures.			
69	Cambria Hotel Project (Stratus)	The project proposes to demolish the existing commercial building and construct a five-story, 190-room hotel on a 1.96-acre project site. The proposed Cambria Hotel by Choice Hotels International will include on-site parking in a two-story parking structure and on-site ride sharing pick up and drop off areas, in addition to a hotel shuttle bus to facilitate shared transportation to the hotel from area job centers, San José International Airport, and Levi's Stadium.	2900 Lakeside Drive, Santa Clara, CA 95054	1.6 miles southwest	Under construction (City of Santa Clara 2025s)
70	3060 Raymond Street Data Center	The proposal is to convert an existing 24,422 square-foot, two-story industrial building to a 9-megawatt data center. The project requires a Use Permit and Architectural Review to allow for the change in use and alterations to the building, surface parking area, site landscaping. The project includes interior and exterior improvements to the building, the installation of five 2,000-kilowatt back- up diesel generators and six closed-circuit cooling towers, and frontage improvements.	3060 Raymond Street, Santa Clara, CA 95054	1.9 miles south	Under construction (City of Santa Clara 2025u)
71	3065 Bowers Ave – Intel Central Utility Building Project	The project proposes to redevelop the approximately 1.3-acre project site with a 17,000-square foot Central Utility Building (CUB). The CUB structure would have a ground-level footprint of approximately 14,200 square feet with an additional 2,800 square feet of mechanical penthouse at the roof level. The CUB would have a height of 45 feet, which includes a 20-foot parapet to screen rooftop equipment. The CUB would house a chiller area, pumps, brine containment, generator yard, electrical substation/battery storage room, mechanical equipment, and natural gas boilers. The CUB would also include a 175-square-foot office area to be utilized by engineering and maintenance staff.	3065 Bowers Ave Santa Clara, 95054	1.8 mile southwest	Approved (City of Santa Clara 2025aa)
72	Muslim Community Association School Expansion Project	Application to amend the current Use Permit to allow for expansion of the existing pre-kindergarten through eighth grade school from 400 students up to 900 students (including up to 150 high school students) and Muslim Community Association support services on the current Light Industrial (ML) zoned property at 3003 Scott Boulevard and on the adjoining ML-zoned expansion property at 3080 Alfred Street.	3003 Scott Boulevard and 3080 Alfred Street, Santa Clara, CA 95054	1.9 miles south	Approved (City of Santa Clara 2025t)

TABLE 3.0-1
CUMULATIVE PROJECTS LIST

Cumulative Map #	Project	Description	Location	Approximate distance and direction to Project	Project Status
73	3000 Bowers Ave - Office	The project proposes to construct two 165,000 square foot five-story office buildings totaling 330,000 square feet; a five-level parking garage and surface lots providing a total of 980 parking spaces; and site and public right-of-way improvements. The project proposes to construct new five-foot sidewalks along the site's frontage on Oakmead Village Court and central Expressway, which would connect to the existing sidewalk on Bowers Avenue. The proposed office buildings would be 87.5 feet in height at the top of the roof screen and the parking structure would be 63.5 feet at the top of the elevator tower. The proposed project would result in a floor area ratio (FAR) of 1.05	3000 Bowers Ave Santa Clara, 95051	1.9 mile south	Approved (City of Santa Clara 2025z)
74	Rezone & Data Center	Rezoning from Planned Development (PD) to Light Industrial (ML), Architectural Review and Minor Modification to increase the height to 85' and reduce the parking space requirements of a 3.8-acre project site. The site is bounded by Central Expressway to the south, Stender Way to the west, adjacent buildings to the north, and San Tomas Aquino Creek to the east. Project includes demolition of the existing single-story buildings, and construction of a four-story, 246,660 square-foot data center building.	2905 Stender Way, Santa Clara, CA 95054	2 miles south	Under construction (City of Santa Clara 2025v)
75	1231 Comstock – Data Center	The proposed project is the development of a four-story 122,000 square foot data center building along with six 3,000 kW diesel-fueled generators, one 500 kW house generator, rooftop mechanical equipment including eight 1,500 kW air-cooled chillers, four dedicated outdoor air units, and seven remote radiator units, and landscaping and parking associated with the use.	1231 Comstock Santa Clara, CA 95054	2 miles south	Approved (City of Santa Clara 2025w)
76	South San Francisco Bay Shoreline Project	The South San Francisco Bay Shoreline Project will provide coastal flood protection, restore 2,900 acres of former salt evaporation ponds, and enhance public access in the Alviso area of South San Francisco Bay. The U.S. Army Corps of Engineers (Corps) is constructing the Shoreline Project pursuant to a cost-sharing agreement with Valley Water and the State Coastal Conservancy, which are the non-federal sponsors for the project.	Community of Alviso and adjacent ponds and waterways, between Alviso Slough and Coyote Creek, northern San José, Santa Clara County, Southern Region	Reaches 1- 3 in construction. Reaches 4 – 6 in planning.	Planning; Permitting; Design; Construction/Implementation (San Francisco Bay Restoration Authority 2025)
77	Esperanca Substation Project	The Project would construct a new 12 kV distribution substation, including three banks and 21 distribution feeders, within the existing footprint of the Northern Receiving Station. Construction would begin after completion of the NRS-KRS 115 kV Transmission Line Project, currently anticipated to complete in 2028.	City of Santa Clara, CA	0 mile	Planning (Jackman, pers. comm. 2025)

TABLE 3.0-1
CUMULATIVE PROJECTS LIST

Cumulative Map #	Project	Description	Location	Approximate distance and direction to Project	Project Status
78	Northern Receiving Station-Kifer Receiving Station 115 kV Transmission Line Project	This Project would construct approximately 2.24 miles of new 115 kV transmission line within the northeastern area of the City of Santa Clara, connecting SVP's existing Northern Receiving Station (NRS) to its existing Kifer Receiving Station (KRS). Minimal work would be needed at the existing substations. The construction phase is expected to take approximately 14 months for the overhead option (Option 1; preferred option) and is anticipated to be completed by early 2028. The underground option would take significantly longer.	City of Santa Clara, CA	0 mile	Under construction (City of Santa Clara 2024)
NA[1]	Vasona-Metcalf 230 kV Line Limiting Elements Removal Project	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.	Santa Clara County, CA	20 miles south	Unknown (CAISO 2024, CEERT 2023)
NA[1]	Metcalf-Piercy & Swift and Newark-Dixon Landing 115 kV Upgrade	No available project description. Transmission plan approved 2003. Expected construction start is December 2026. Expected in-service date is March 2027.	Santa Clara County, CA	20 miles south	Unknown (CAISO 2024, CEERT 2023)
NA[1]	Metcalf 230/115 kV Transformers Circuit Breaker Addition	Add parallel breakers to each of the 230/115 kV banks Nos. 1, 2, and 3 at PG&E Metcalf 230 kV Substation so that the three Metcalf 230/115 kV transformer banks can connect to both Metcalf 230 kV Bus1 and Bus 2. The objective is to mitigate thermal overloads on the Metcalf 230/115 kV banks caused by multiple P2 contingencies. Expected in-service date is June 2027.	Santa Clara County, CA	20 miles south	Unknown (CAISO 2024, CEERT 2023)
NA[1]	Power Santa Clara Valley Project	The Project would include two new high-voltage direct current (HVDC) terminals and associated new transmission lines. The new transmission lines would include an approximately 13-mile Grove to Skyline 320 kilovolt (kV) direct current (DC) underground transmission line connecting the southern terminal, the proposed new Grove terminal, to the northern terminal, the proposed new Skyline terminal; an approximately 100-foot overhead Skyline to San Jose B 230 kV alternating current (AC) station transmission tie line connecting the new Skyline terminal to the existing Pacific Gas and Electric Company (PG&E) San Jose B substation; and an approximately 1.2-mile Metcalf to Grove 500 kV AC underground transmission line connecting the new Grove terminal to the existing PG&E Metcalf substation. The Project would be located in the City of San José and Santa Clara County in California.	City of San José and Santa Clara County, CA	20 miles south	(CAISO 2024)

NOTES: These projects are more than 20 miles from the Project alignment and are included in this table for information purposes only.

3.0.5 References

Jackman, A. 2025. Power the South Bay Project SVP Interconnection. Email from A. Jackman (Division Manager, Silicon Valley Power) to T. Alexander (Senior Regulatory Analyst, California Public Utilities Commission). March 19, 2025.

CEC (California Energy Commission). 2025. San Jose Data Center. Available: https://www.energy.ca.gov/powerplant/backup-generating-system/san-jose-data-center. Accessed March 10, 2025.

CAISO (California Independent System Operator). 2024. 2023-2024 Transmission Plan. Available: https://www.caiso.com/documents/iso-board-approved-2023-2024-transmission-plan.pdf. Accessed March 31, 2025.

CEERT (Center for Energy Efficiency and Renewable Technologies. 2023. Docket 23-IEPR-04 Accelerating Interconnection of Clean Energy Resources with the Bulk Power System. Available: https://efiling.energy.ca.gov/GetDocument.aspx?tn=250080. Accessed March 31, 2025.

City of Fremont, 2025a. City of Fremont AgencyCounter, Search for 5780 Cushing Parkway, Fremont. Layers Searched: Building Permits, Planning Applications. Available: https://fremont.agencycounter.com/home. Accessed March 10, 2025.

City of Fremont, 2025b. City of Fremont AgencyCounter, Search for 3300 Innovation Way. Layers Searched: Building Permits, Planning Applications. Available: https://fremont.agencycounter.com/home. Accessed March 10, 2025.

City of Fremont, 2025c. City of Fremont AgencyCounter, Search for 44408 Pacific Commons Blvd. Layers Searched: Building Permits, Planning Applications. Available: https://fremont.agencycounter.com/home. Accessed March 10, 2025.

City of Fremont, 2025d. City of Fremont AgencyCounter, Search for 47200 Bayside Pkwy. Layers Searched: Building Permits, Planning Applications. Available: https://fremont.agencycounter.com/home. Accessed March 10, 2025.

City of Fremont, 2025e. City of Fremont AgencyCounter, Search for 280 Whitney Pl. Layers Searched: Building Permits, Planning Applications. Available: https://fremont.agencycounter.com/home. Accessed March 10, 2025. City of Milpitas, 2025a. City of Milpitas GIS, Search for 1880 N Milpitas Blvd, Milpitas. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025b. City of Milpitas GIS, Search for 1724 Sunnyhills Dr, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025c. City of Milpitas GIS, Search for 1355 California Cir, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025d. City of Milpitas GIS, Search for 1301 California Cir, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025e. City of Milpitas GIS, Search for 1201 Cadillac Ct, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025f. City of Milpitas GIS, Search for 1100 Cadillac Ct, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025g. City of Milpitas GIS, Search for 230 Uvas St, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025h. City of Milpitas GIS, Search for 625 N McCarthy Blvd, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025i. City of Milpitas GIS, Search for Valley Way, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025j. City of Milpitas GIS, Search for 27 E Carlo St, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025k. City of Milpitas GIS, Search for 27 S Main St, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025l. City of Milpitas GIS, Search for 200 Serra Way, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025m. City of Milpitas GIS, Search for 600 Barber Ln, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025n. City of Milpitas GIS, Search for 1001 Murphy Ranch Rd, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025o. City of Milpitas GIS, Search for 521 Alder Dr, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025p. City of Milpitas GIS, Search for 521 Alder Dr, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025q. City of Milpitas GIS, Search for 164 N Abel St, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025r. City of Milpitas GIS, Search for 205 N McCarthy Blvd, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of Milpitas. 2025s. City of Milpitas GIS, Search for 25 S Abbott Ave, Milpitas, CA, 95035, USA. Layers Searched: Project Developments. Available: https://milpitas-gis-milpitas.hub.arcgis.com/datasets/6df8497e4be44852b29b22bf522aedd5_0/explore. Accessed March 10, 2025.

City of San José. 2025a. Electronic communication from Tiffany Khanna, P.E., Senior Engineer Department of Public Works, Subject: RE: LSPGC Power Santa Clara Valley Project: Cumulative City of San José Projects, February 3, 2025.

City of San José. 2025b. City of San José Public GIS Viewer, Search for 2890 N. 1st Street, San José, CA 95134. Layers searched: Planning Permits. Available: https://gis.sanjoseca.gov/maps/publicgisviewer/. Accessed March 7, 2025.

City of San José. 2025c. Digested Sludge Dewatering Facility. Available: https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/water-utilities/regional-wastewater-facility/capital-improvement-program. Accessed March 10, 2025.

City of San José. 2024a. Seely Avenue Mixed-Use Project Draft Environmental Impact Report. Available: https://www.sanjoseca.gov/home/showpublisheddocument/108331/638410223673230000. Accessed March 10, 2025.

City of San José. 2024b. Notice of An Environmental Impact Report for the 211-281 River Oaks Parkway Residential Project. Available: https://files.ceqanet.opr.ca.gov/308600-1/attachment/XCCOz0UbIUmASa1Gs3-

h4GCYe6agOMoSDQl6mcYphhvy9kYonaHwaqIGzrVEwA6zzhgys8kvmCNWe8E80. Accessed March 10, 2025.

City of San José. 2017. 237 Industrial Center Project Draft Environmental Impact Report. Available: https://www.sanjoseca.gov/home/showpublisheddocument/20857/636688064773330000. Accessed March 10, 2025.

City of Santa Clara. 2025a. Projects Listing, Tasman East – 2263 Calle Del Mundo (Ensemble). Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/271/2495?npage=6. Accessed March 5, 2025.

City of Santa Clara. 2025b. Projects Listing, Tasman East - 2200 Calle De Luna (Holland). Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/277/2495?npage=6. Accessed March 5, 2025.

City of Santa Clara. 2025c. Projects Listing, Tasman East - 2225 Calle de Luna & 2232 Calle del Mundo. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/393/2495?npage=6. Accessed March 6, 2025.

City of Santa Clara. 2025d. Projects Listing, Tasman East - 2343 Calle Del Mundo (Summerhill). Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/263/2495?npage=6. Accessed March 6, 2025.

City of Santa Clara. 2025d. Projects Listing, Tasman East - 2302/2310 Calle Del Mundo (Ensemble). Available: https://www.santaclaraca.gov/Home/Components/Business Directory/BusinessDirectory/328/2495?npage=6. Accessed March 6, 2025.

City of Santa Clara. 2025f. Projects Listing, Tasman East - 2354 Calle Del Mundo (Ensemble). Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/346/2495?npage=6. Accessed March 6, 2025.

City of Santa Clara. 2025g. Projects Listing, Tasman East - 2101 Tasman Drive (Related). Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/278/2495?npage=6. Accessed March 6, 2025.

City of Santa Clara. 2025h. Projects Listing, Tasman East - 5185 Lafayette (Ensemble). Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/269/2495?npage=7. Accessed March 6, 2025.

City of Santa Clara. 2025i. Projects Listing, Tasman East - 5123 Calle Del Sol (Ensemble). Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/265/2495?npage=6. Accessed March 6, 2025.

City of Santa Clara. 2025j. Projects Listing, Tasman East - 2300 Calle De Luna (Related). Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/281/2495?npage=6. Accessed March 6, 2025.

City of Santa Clara. 2025k. Projects Listing, 5200 Patrick Henry Drive - Arista Office Development. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/501/2495?npage=4. Accessed March 6, 2025.

City of Santa Clara. 2025l. Projects Listing, Related Santa Clara. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/216/2495?npage=5. Accessed March 6, 2025.

City of Santa Clara. 2025m. Projects Listing, 2901 Tasman Dr. - Great America Parkway/Tasman Drive Office Project (Menlo Equities). Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/366/2495?npage=2. Accessed March 6, 2025.

City of Santa Clara. 2025n. Projects Listing, Mission Point by Kylli Project. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/245/2495?npage=5. Accessed March 6, 2025.

City of Santa Clara. 2025o. Projects Listing, 3000 Patrick Henry Drive - Mixed Use. https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/493/2495?npage=2. Accessed March 6, 2025.

City of Santa Clara. 2025p. Projects Listing, 3905 Freedom Circle - Mixed-use. https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/297/2495?npage=3. Accessed March 6, 2025.

City of Santa Clara. 2025q. Projects Listing, 3575 De La Cruz Boulevard - Residential Project. https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/463/2495?npage=3. Accessed March 6, 2025.

City of Santa Clara. 2025r. Projects Listing, 3625 Peterson Way office project. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/306/2495?npage=3. Accessed March 6, 2025.

City of Santa Clara. 2025s. Projects Listing, Cambria Hotel project (Stratus). Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/326/2495?npage=5. Accessed March 6, 2025.

City of Santa Clara. 2025t. Projects Listing, 3080 Alfred & 3003 Scott - Muslim Community Association School Expansion Project (CEQA). Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/487/2495?npage=2. Accessed March 10, 2025.

City of Santa Clara. 2025u. Projects Listing, 3060 Raymond Street - Data Center. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/461/2495?npage=2. Accessed March 10, 2025.

City of Santa Clara. 2025v. Projects Listing, 2905 Stender Way - Rezone & Data Center. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/380/2495. Accessed March 10, 2025.

City of Santa Clara. 2025w. Projects Listing, 1231 Comstock - Data Center. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/525/2495. Accessed March 10, 2025.

City of Santa Clara. 2025x. Projects Listing, 2303 Gianera Street - Planned Development. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/527/2495. Accessed March 10, 2025.

City of Santa Clara. 2025y. Projects Listing, 2518 Mission College Blvd. - Santa Clara Park Residential Project. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/527/2495. Accessed March 10, 2025.

City of Santa Clara. 2025z. Projects Listing, 3000 Bowers Avenue. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/443/2495?npage=2. Accessed March 10, 2025.

City of Santa Clara. 2025aa. Projects Listing, 3065 Bowers Avenue - Intel Central Utility Building Project. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/507/2495?npage=2. Accessed March 10, 2025.

City of Santa Clara. 2025bb. Projects Listing, 4220 Network Circle. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/517/2495?npage=4. Accessed March 10, 2025.

City of Santa Clara. 2025cc. Projects Listing, 4249 Cheeney Street. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/537/2495?npage=4. Accessed March 10, 2025.

City of Santa Clara. 2025dd. Projects Listing, 4503 Cheeney - Six Unit Single-family Development. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/541/2495?npage=4. Accessed March 10, 2025.

City of Santa Clara. 2025ee. Projects Listing, 4590 Patrick Henry Drive Residential Project. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/513/2495?npage=4. Accessed March 10, 2025.

City of Santa Clara. 2025ff. Projects Listing, 5201 Patrick Henry Drive - Office and Prefabrication Facility. Available: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/503/2495?npage=4. Accessed March 10, 2025.

City of Santa Clara. 2024. NRS-KRS 115 kV Transmission Line Project Mitigated Negative Declaration and Supporting Initial Study. Available: https://www.siliconvalleypower.com/home/showpublisheddocument/85085/638627687976830000. Accessed March 21, 2025.

CPUC (California Public Utilities Commission). 2019. Guidelines for Energy Project Applications for Requiring CEQA Compliance: *Pre-filing and Proponent's Environmental Assessments*. Adopted November 2019. Available: https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/c/6442463239-ceqa-pre-filing-guidelines-pea-checklist-nov-2019.pdf. Accessed May 2025.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

Nelson, Andrew. 2023. Plans Surface for Hundreds of Homes in North San Jose. Available: https://sfyimby.com/2023/11/plans-surface-for-hundreds-of-homes-in-north-san-jose.html. Accessed March 10, 2025.

San Francisco Bay Restoration Authority. 2025. South San Francisco Bay Shoreline Project. Available: https://www.sfbayrestore.org/projects/south-san-francisco-bay-shoreline-project. Accessed March 10, 2025.

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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, 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 B, *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. The proximity of a project to a vantage point in the viewshed is categorized into three ***distance zones*** based on the position of the viewer and are measured from one static point: the ***foreground*** (up to 0.5 mile from the viewer), ***middle ground*** (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 compose 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.

A ***scenic vista*** is an area that is designated, signed, and accessible to the public for 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 local, state, or federal 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 3.1.5, *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 purpose of the following analysis, viewpoints were identified to develop visual simulations of views of the Project site.

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.
- *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 line of sight (normal).
- *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 recreationists and motorists) 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 who 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 follows:

- *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.
- *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 related to aesthetic and scenic resources consists 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 Project is located in the cities of Fremont, Milpitas, San José, and Santa Clara, within Alameda and Santa Clara counties (see Figure 2-1 in Chapter 2).

3.1.2.2 Landscape Setting

The Project's major structural systems include the overhead and underground transmission line and modifications at the existing PG&E Newark 230-kilovolt (kV) Substation and SVP Northern Receiving Station (NRS) 230 kV Substation. To connect the existing PG&E Newark 230 kV Substation and SVP NRS 230 kV Substation, approximately 12 miles of overhead and underground transmission line would be installed throughout the Project area.

The Diablo Mountain Range rises above the valley floor, approximately 5 miles northeast of the SVP NRS 230 kV Substation and 4 miles east of the PG&E Newark 230 kV Substation. The Santa Cruz Mountains rise to the southwest of the valley floor, 10 miles southwest of the SVP NRS 230 kV Substation. These mountains consist of gently sloping alluvial plains, with peaks ranging up to 3,800 feet. On clear days, when distant landscape elements are discernible, several

of the higher peaks and mountains of the Diablo and Santa Cruz Ranges are visible from various locations in the general area.

Commercial, industrial, and undeveloped open land and wetlands surround the overhead transmission structures NN-4 though NN-14, the overhead line route, and Staging Areas 5 through 12 (see Figures 2-2c and 2-5c in Chapter 2). Developed industrial uses have long been the dominant land use in the vicinity of these staging areas. Warehouses, parking lots, staging areas, and office parks are characteristic features in this area.

The Newark to NRS 230 kV AC transmission line alignment would be located partially underground and partially overhead along commercial, industrial, open space, roads, and undeveloped land. The overhead portion of the Newark to NRS 230 kV AC transmission line alignment would run adjacent to the existing PG&E Newark 230 kV Substation in an undeveloped area. The underground portion of the Newark to NRS 230 kV AC transmission line alignment would run along Weber Road through a predominantly industrial area. The majority of the underground segments of the Newark to NRS 230 kV AC transmission line alignment would run within or along Cushing Parkway, Fremont Boulevard, Los Esteros Road, Disk Drive, Nortech Parkway, and Lafayette Street and cross Auto Mall Parkway, Mountain View Alviso Road (State Route [SR] 237), and North First Street. The transmission line alignment would also cross under Coyote Creek and the Guadalupe River.

3.1.2.3 Parks and Open Spaces

The Project area 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 area is provided in Section 3.16, *Recreation*.

TABLE 3.1-1
SCENIC RESOURCES

Scenic Resource	Description
I-880 & Stevenson Boulevard	City of Fremont gateway (high priority)[a]
I-880 & Fremont Boulevard (south)	City of Fremont gateway (low priority)
I-880 & Mission Boulevard/Gateway Boulevard	City of Fremont gateway (low priority)
I-880 & SR 84	City of Fremont gateway (high priority)
I-880 & Mowry Avenue	City of Fremont gateway (high priority)
I-880 & Milpitas border	City of Fremont gateway (high priority)
I-680 & Milpitas border	City of Fremont gateway (high priority)
SR 84 & Paseo Padre Parkway	City of Fremont gateway (high priority)
SR 84	City of Fremont scenic corridor, Caltrans “Officially Designated” State Scenic Highway
SR 262	City of Fremont scenic corridor
Paseo Padre Parkway	City of Fremont-designated scenic corridor
Mission Boulevard	City of Fremont-designated scenic corridor

TABLE 3.1-1
SCENIC RESOURCES

Scenic Resource	Description
Bay Area Rapid Transit (BART) Line (Union City border to Milpitas border)	City of Fremont-designated scenic corridor
Sierra Road	City of San José-designated rural scenic corridor
U.S. Route 101	City of San José-designated rural scenic corridor and urban corridor
I-880	City of San José-designated urban corridor
SR 87	City of San José-designated urban corridor
SR 237	City of San José-designated urban corridor
I-680	City of San José-designated urban corridor, Caltrans "Eligible" and "Officially Designated" State Scenic Highway
Santa Clara Valley	City of San José-designated scenic resource
City of San José Urban Skyline	City of San José-designated scenic resource
Santa Cruz Mountain Range	City of San José-designated scenic resource
Diablo Mountain Range	City of San José-designated scenic resource
Coyote Creek Trail	City of San José trail
Guadalupe River Trail	City of San José trail
Alviso Park	City of San José park
North First Street at SR 237	City of San José gateway
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. Route 101	City of San José gateway
Coleman Avenue at I-880	City of San José gateway
The Alameda at I-880	City of San José gateway
Great Mall	City of Milpitas landmark
Santa Clara Youth Soccer Park	City of Santa Clara park
Ulistac Natural Area	City of Santa Clara-designated natural area
Bay Trail	Multi-agency trail network
Don Edwards San Francisco Bay National Wildlife Refuge (Don Edwards NWR)	United States Fish and Wildlife Service (USFWS) wildlife refuge

NOTES:

BART = Bay Area Rapid Transit; Caltrans = California Department of Transportation; Don Edwards NWR = Don Edwards San Francisco Bay National Wildlife Refuge; I = Interstate; SR = State Route; U.S. = United States; USFWS = United States Fish and Wildlife Service

a. In the City of Fremont General Plan, gateways exist at the points where major roads, freeways, and transit lines enter the city. The General Plan categorizes the gateways by Complete, High, Medium, and Low priorities.

SOURCE: Caltrans 2018; City of Fremont 2011; City of Milpitas 2021; City of San José 2016; City of San José 2024; City of Santa Clara 2014.

3.1.2.4 Scenic Resources

Scenic resources can include designated vistas, 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, while the California Department of Transportation identifies state and national scenic highways. For the Project, the City of Fremont General Plan (2011), City of Milpitas General Plan (2021), City of San José General Plan (2024), City of Santa Clara General Plan (2014), and the California State Scenic Highway System (Caltrans 2024) 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. **Figure 3.1-1**, *Scenic Resources Map*, illustrates the location of each identified scenic resource.

3.1.2.5 Viewshed Analysis

To describe the Project's visual setting and assess potential visual impacts, the viewshed has been broken down into foreground, middle ground, and background distance zones. Background views extend to the visual horizon, approximately 5 miles from the Project site, prompting an analysis using a 5-mile buffer. The foreground is defined as the zone within 0.5 mile of the viewer, where landscape details are noticeable and objects are most prominent when seen in the foreground. The middle ground extends from the foreground up to 3 miles from the viewer. The background extends from 3–5 miles and beyond. **Figure 3.1-2**, *Viewshed Analysis and Landscape Units Map,* provides buffers showing these distances.

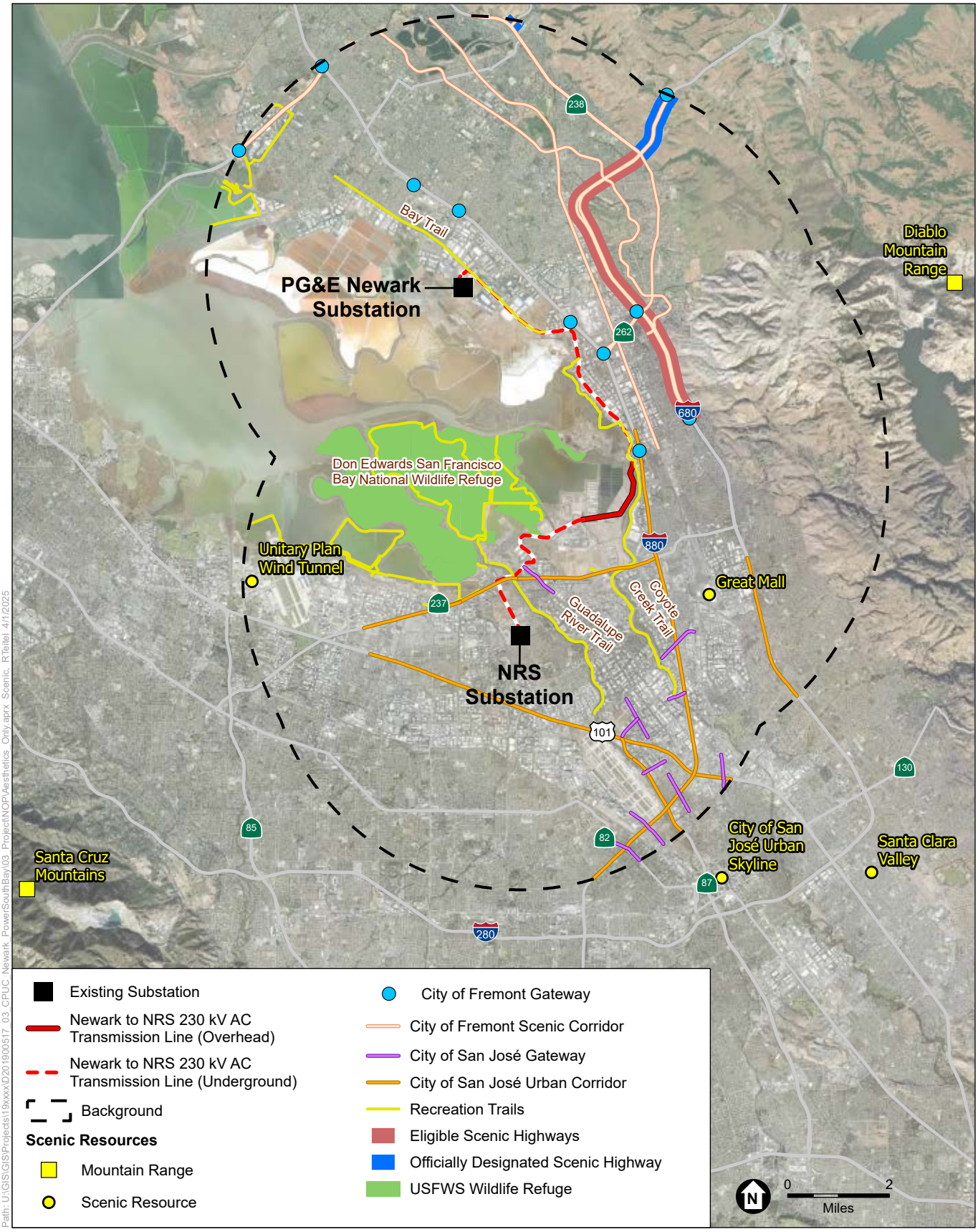
The Project's viewshed is defined as the general area from which the Project is visible. Viewing distance is a key factor that affects the potential degree of the Project's visibility. Visual details generally become apparent to the viewer when they are observed in the foreground at a distance of 0.25 to 0.5 mile or less. Therefore, the analysis of the Project primarily considers the potential effects of the Project's elements on foreground viewshed conditions, while also considering middle ground and background views. The construction of the transmission lines would be visible from residential, public recreation, open space, commercial, and industrial areas.

3.1.2.6 Landscape Units

Three distinct landscape units have been identified to document and describe the Project's foreground viewshed. **Table 3.1-2**, *Summary of Landscape Units,* summarizes the landscape units identified within the Project's viewshed, and Figure 3.1-2 illustrates the locations on an aerial map.

Landscape Unit 1: PG&E Newark 230 kV Substation to the Fremont Boulevard Trail Segment of the Bay Trail

Landscape Unit 1 is located in the city of Fremont and is the most industrial part of the Project area. The unit includes segments of Weber Road, Boyce Road, Cushing Parkway, and Fremont Boulevard running west to east and then south. The roads are primarily lined with parking lots, warehouses, offices, or undeveloped land. The PG&E Newark 230 kV Substation, overhead transmission structures NN-1 through NN-3, and Staging Areas 1 through 4 are all located within a largely industrial area within this landscape unit.

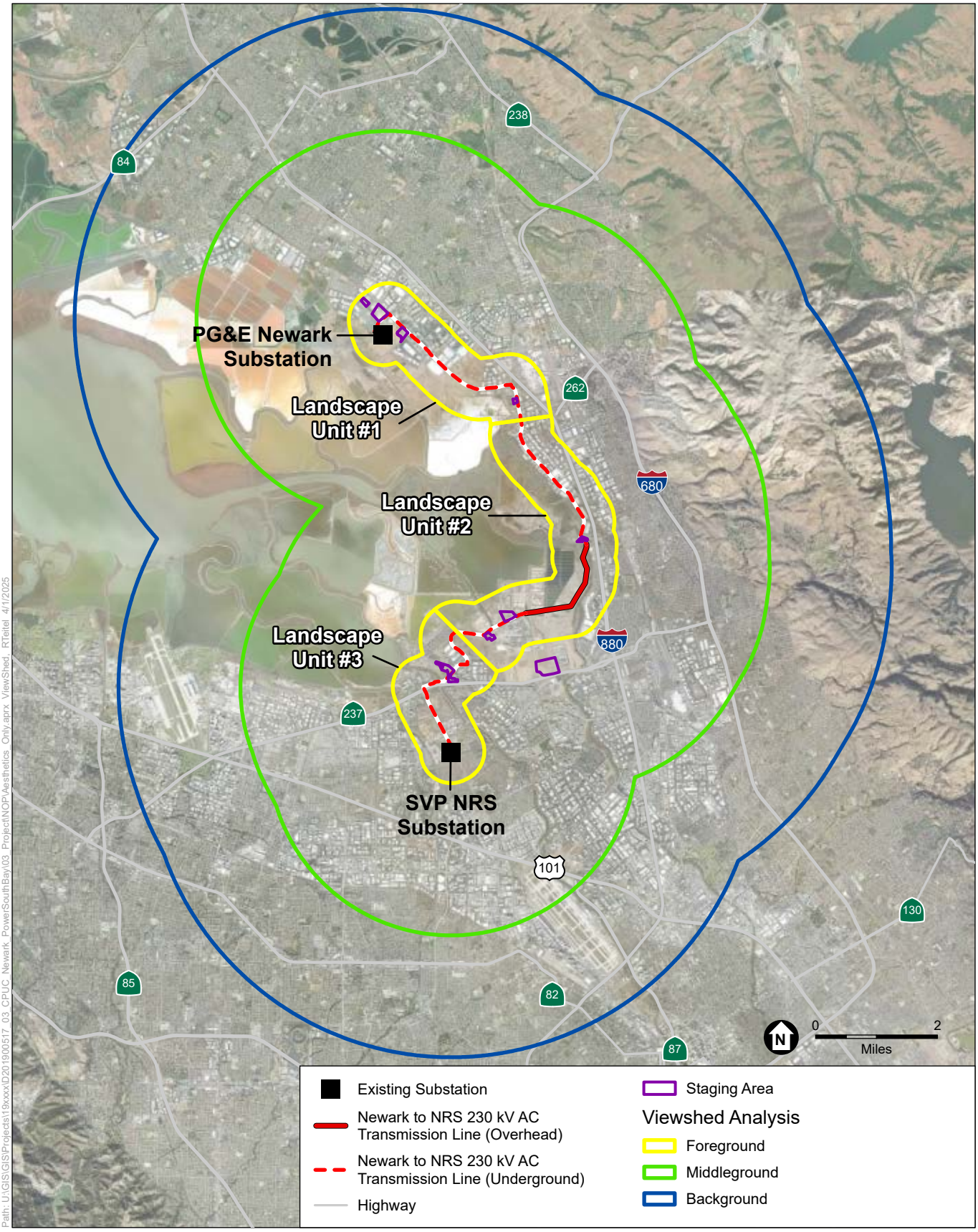


Path: U:\GIS\GIS\Projects\19xxxx\ID20190517_03_CPUC_Newark_PowerSouthBay\03_Project\NOP\Aesthetics_Only.aprx Scenic_RTeitel 4/1/2025

SOURCE: ESA, 2024; Caltrans, 2023; LSPGC, 2023

Power the South Bay Project

Figure 3.1-1
Scenic Resources



SOURCE: ESA, 2024

Power the South Bay Project

Figure 3.1-2
Viewshed Analysis and Landscape Units Map

TABLE 3.1-2
SUMMARY OF LANDSCAPE UNITS

Landscape Unit (Approximate length/size)	Primary Affected Viewers	Representative Viewpoints[a]
1. PG&E Newark 230 kV Substation to the Fremont Boulevard trail segment of the Bay Trail (4.7 miles)	Motorists, pedestrians	1–6
2. Fremont Boulevard trail segment to Grand Boulevard and Speckles Avenue (4 miles)	Motorists, pedestrians	7–18
3. Grand Boulevard and Spreckles Avenue to the SVP NRS 230 kV Substation (2.7 miles)	Motorists, pedestrians, and residents	20–29

NOTES:
kV = kilovolt; NRS = Northern Receiving Station; SVP = Silicon Valley Power.
a. The representative viewpoints in the table correspond to the representative viewpoints described in Section 3.1.2.7
SOURCE: LSPGC 2025.

Landscape Unit 2: Fremont Boulevard Trail Segment to Grand Boulevard and Spreckles Avenue

Landscape Unit 2 is located in the cities of Fremont, Milpitas, and San José along Fremont Boulevard, small access roads, wastewater treatment drying beds, and Los Esteros Road, running north to south and then southwest. This unit encompasses predominately industrial and undeveloped land, situated near landfills, wastewater treatment facilities, and other industrial warehouses and facilities. The overhead transmission structures NN-4 through NN-14 and Staging Areas 5 through 9 are located in an undeveloped part of this unit, with a large wastewater treatment facility to the south and a recycling waste facility to the north of Los Esteros Road.

Landscape Unit 3: Grand Boulevard and Spreckles Avenue to the SVP NRS 230 kV Substation

Landscape Unit 3 is located in portions of the cities of San José and Santa Clara, along Grand Boulevard, Disk Drive, Nortech Parkway, SR 237, and Lafayette Street. This unit encompasses a mostly commercial area, the Guadalupe River near SR 237, and then areas to the south with low density housing to the east and sports parks and Levi's Stadium to the west. Staging Areas 10 through 12 are located in an undeveloped part of this unit.

3.1.2.7 Representative Viewpoints

A total of 17 representative viewpoints were selected at key locations throughout the study area. These viewpoints represent a range of views of the Project from major roads, trails, recreational areas, and other scenic resources. **Figure 3.1-3A** through **G**, *Location of Representative Viewpoints and Key Observation Points*, illustrates the location of each representative viewpoint. High-resolution photographs taken at each of the 17 representative viewpoints are included in **Figures 3.1-4A** through **3.1-4Q**. Additionally, two 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; the Project would be visible; and viewers at this location may be particularly sensitive to visual change.

Table 3.1-3, *Summary of Representative Viewpoints and KOPs*, provides the types of viewers, viewing direction, distance to the nearest Project feature, and the capture time and date of the photograph. A description of the existing visual conditions and visibility of the Project area as seen from the viewpoint and shown in the representative photographs is presented below.

TABLE 3.1-3
SUMMARY OF REPRESENTATIVE VIEWPOINTS AND KOPS

Viewpoint and Location	Figure	Potentially Affected Viewer Type	Viewing Direction and Distance	Capture Time and Date
Viewpoint 1	Figure 3.1-4A	Motorists	Southwest: Adjacent to the underground Newark to NRS 230 kV AC transmission line alignment (taken from Weber Road)	1/4/2024 8:10 a.m.
Viewpoint 2	Figure 3.1-4B	Motorists	Southwest: Adjacent to the underground Newark to NRS 230 kV AC transmission line alignment and Staging Area 3 (taken from Boyce Road)	1/4/2024 8:21 a.m.
Viewpoint 3	Figure 3.1-4C	Motorists and Pedestrians	Northeast: Adjacent to the underground Newark to NRS 230 kV AC transmission line alignment (taken from Cushing Parkway)	1/4/2024 2:04 p.m.
Viewpoint 4	Figure 3.1-4D	Motorists and Pedestrians	West: Adjacent to the underground Newark to NRS 230 kV AC transmission line alignment (taken from Cushing Parkway)	1/4/2024 8:36 a.m.
Viewpoint 5	Figure 3.1-4E	Motorists and Pedestrians	South: Adjacent to the underground Newark to NRS 230 kV AC transmission line alignment and Staging Areas 5 and 6 (taken from Fremont Boulevard)	1/4/2024 2:22 p.m.
Viewpoint 6	Figure 3.1-4F	Motorists	South: Adjacent to the underground Newark to NRS 230 kV AC transmission line alignment and Staging Areas 5 and 6 (taken from the intersection of Fremont Boulevard and Dixon Landing Road)	1/4/2024 2:34 p.m.
Viewpoint 7	Figure 3.1-4G	Pedestrians	Northwest: Approximately 515 feet east of the overhead Newark to NRS 230 kV AC transmission line alignment (taken from Coyote Creek Trail)	1/4/2024 8:57 a.m.
Viewpoint 8	Figure 3.1-4H	Motorists and Pedestrians	Northwest: Approximately 1,360 feet east of the overhead Newark to NRS 230 kV AC transmission line alignment (taken from McCarthy Boulevard)	1/4/2024 9:34 a.m.
Viewpoint 9	Figure 3.1-4I	Motorists	Northwest: Approximately 425 feet south of the overhead and underground Newark to NRS 230 kV AC transmission line alignment (taken from Zanker Road at Los Esteros Road)	1/4/2024 1:25 p.m.
Viewpoint 10	Figure 3.1-4J	Motorists	Northeast: Adjacent to the underground Newark to NRS 230 kV AC transmission line alignment (taken from Los Esteros Road)	1/4/2024 1:19 p.m.
Viewpoint 11	Figure 3.1-4K	Motorists	Southeast: Adjacent to the underground Newark to NRS 230 kV AC transmission line alignment and Staging Area 9 (taken from Los Esteros Road)	1/4/2024 1:11 p.m.
Viewpoint 12	Figure 3.1-4L	Pedestrians	Southeast: Approximately 525 feet southwest of Staging Area 10 (taken from Guadalupe River Trail)	1/4/2024 12:46 p.m.
Viewpoint 13	Figure 3.1-4M	Pedestrians	North: Approximately 835 feet south of the underground Newark to NRS 230 kV AC transmission line alignment (taken from Guadalupe River Trail)	1/4/2024 12:38 p.m.
Viewpoint 14	Figure 3.1-4N	Motorists	Northeast: Approximately 300 feet southeast of the underground Newark to NRS 230 kV AC transmission line alignment (taken from Guadalupe River Trail)	1/4/2024 11:51 a.m.
Viewpoint 15	Figure 3.1-4O	Motorists and Pedestrians	South: Adjacent to the underground Newark to NRS 230 kV AC transmission line alignment (taken from SR 237)	1/4/2024 10:30 a.m.

TABLE 3.1-3
SUMMARY OF REPRESENTATIVE VIEWPOINTS AND KOPS

Viewpoint and Location	Figure	Potentially Affected Viewer Type	Viewing Direction and Distance	Capture Time and Date
Viewpoint 16	Figure 3.1-4P	Motorists and Pedestrians	Northwest: Approximately 272 feet east of the SVP NRS 230 kV Substation modification (taken from Lafayette Street)	1/4/2024 10:22 a.m.
Viewpoint 17	Figure 3.1-4Q	Motorists and Pedestrians	Northwest: Approximately 522 feet southeast of the SVP NRS 230 kV Substation modification (taken from Lafayette Street)	1/4/2024 10:15 a.m.
KOP 1	Figure 3.1-5	Motorists and Pedestrians	South: Adjacent to the underground Newark to NRS 230 kV AC transmission line alignment (taken from the intersection of Fremont Boulevard and Dixon Landing Road)	1/4/2024 1:35 p.m.
KOP 2	Figure 3.1-6	Pedestrians	Southwest: Approximately 611 feet east of the overhead Newark to NRS 230 kV AC transmission line alignment (taken from McCarthy Boulevard)	1/4/2024 9:14 a.m.

NOTE: AC = alternating current; KOP = key observation points; kV = kilovolt; NRS = Northern Receiving Station; SR = State Route; SVP = Silicon Valley Power.

SOURCE: LSPGC 2025a.

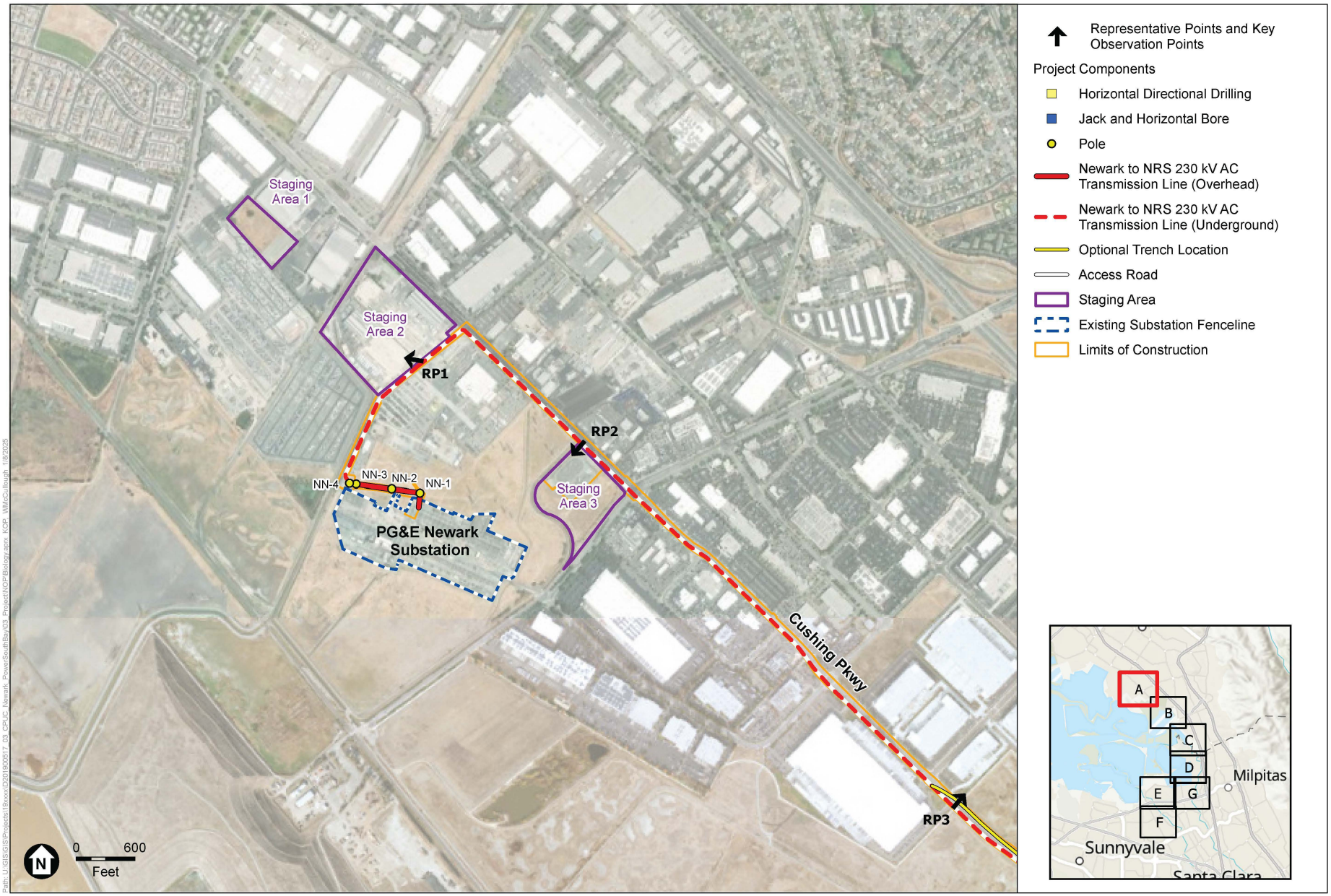
Figure 3.1-4A, Viewpoint 1, shows a motorist's perspective on Weber Road facing southwest. The foreground shows Weber Road, vehicles, and utility poles. The middle ground shows larger utility structures. The background shows the Santa Cruz Mountain Range.

Figure 3.1-4B, Viewpoint 2, shows a motorist's perspective from Boyce Road looking southwest toward the underground Newark to NRS 230 kV AC transmission line alignment and Staging Area 3. The foreground shows Boyce Road, the gates to Staging Area 3, and many large utility structures, which extend into the middle ground. The background shows the Santa Cruz Mountains.

Figure 3.1-4C, Viewpoint 3, shows a motorist's or pedestrian's perspective on Cushing Parkway looking northeast toward the underground Newark to NRS 230 kV AC transmission line alignment. The foreground shows the sidewalk, Cushing Parkway, small plants, trees planted alongside the road, and light poles. The middle ground shows warehouses, office buildings, and larger utility structures. The background shows the Diablo Mountain Range.

Figure 3.1-4D, Viewpoint 4, shows a motorist's or pedestrian's perspective on Cushing Parkway looking west toward the underground Newark to NRS 230 kV AC transmission line alignment. The foreground shows a part of Cushing Parkway, the adjacent sidewalk, and plant life growing next to the sidewalk. The middle ground shows a larger segment of Cushing Parkway, office buildings, and larger utility structures. The background shows the Santa Cruz Mountain Range.

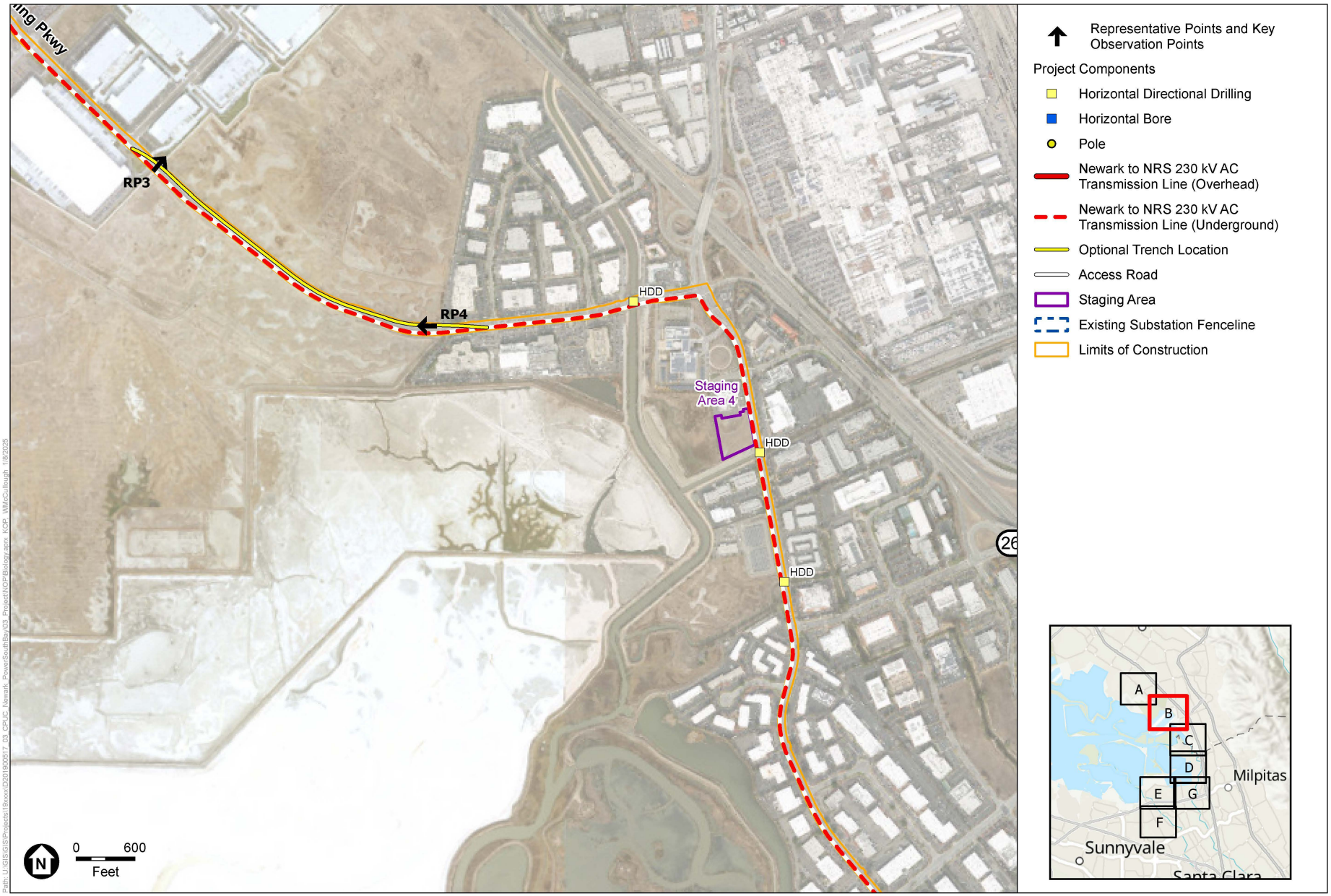
Figure 3.1-4E, Viewpoint 5, shows a motorist's or pedestrian's perspective from Fremont Boulevard looking south along the underground Newark to NRS 230 kV AC transmission line alignment and Staging Area 5. The foreground shows the intersection of Fremont Boulevard/ McCarthy Boulevard and Dixon Landing Road with cars, traffic lights, and overhead utility poles. The middle ground shows a few utility poles. The background shows the Diablo Mountain Range.



SOURCE: ESA, 2024

Power the South Bay Project

Figure 3.1-3A
Location of Representative Viewpoints and Key Observation Points



SOURCE: ESA, 2024

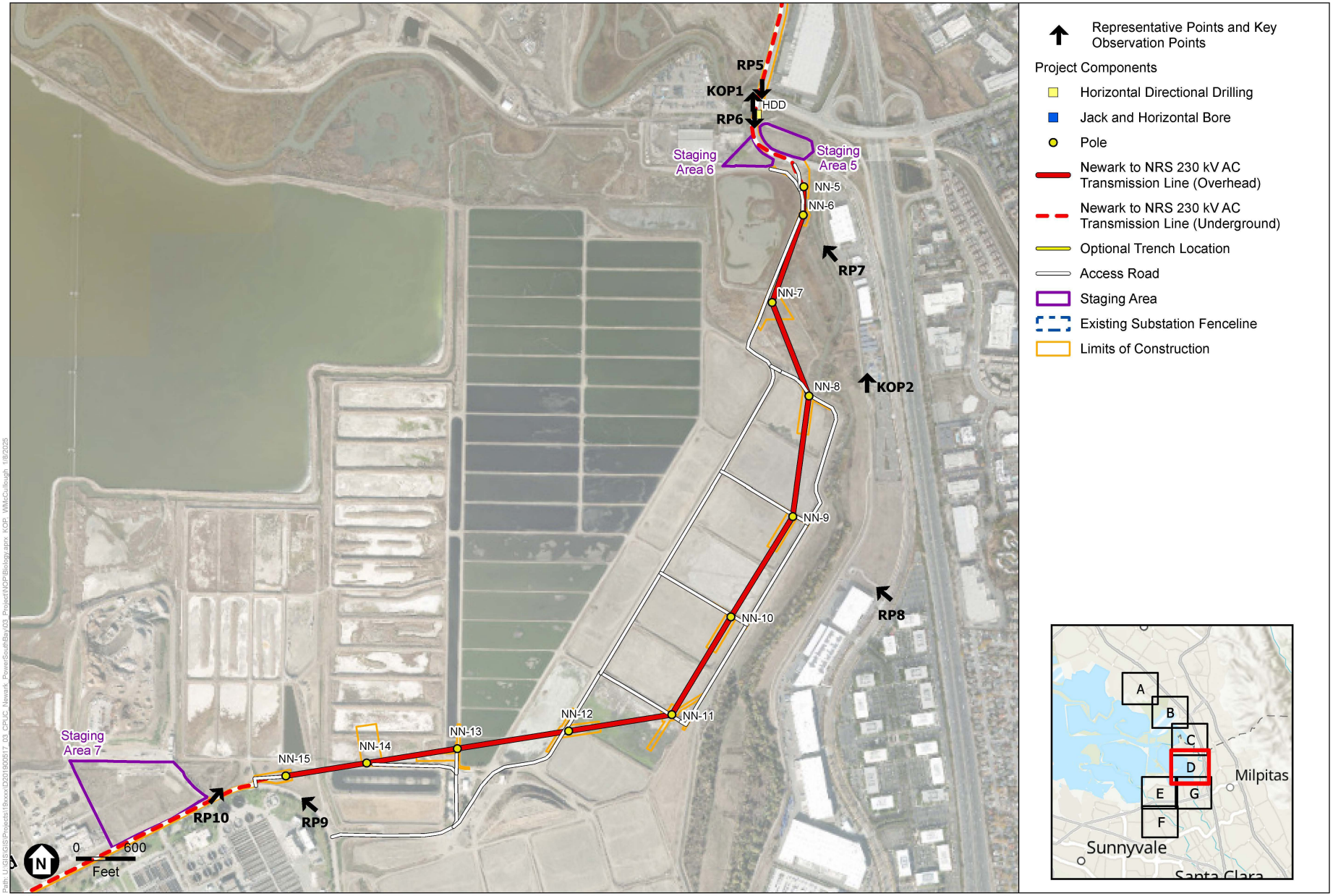
Power the South Bay Project

Figure 3.1-3B
Location of Representative Viewpoints and Key Observation Points

SOURCE: ESA, 2024

Power the South Bay Project

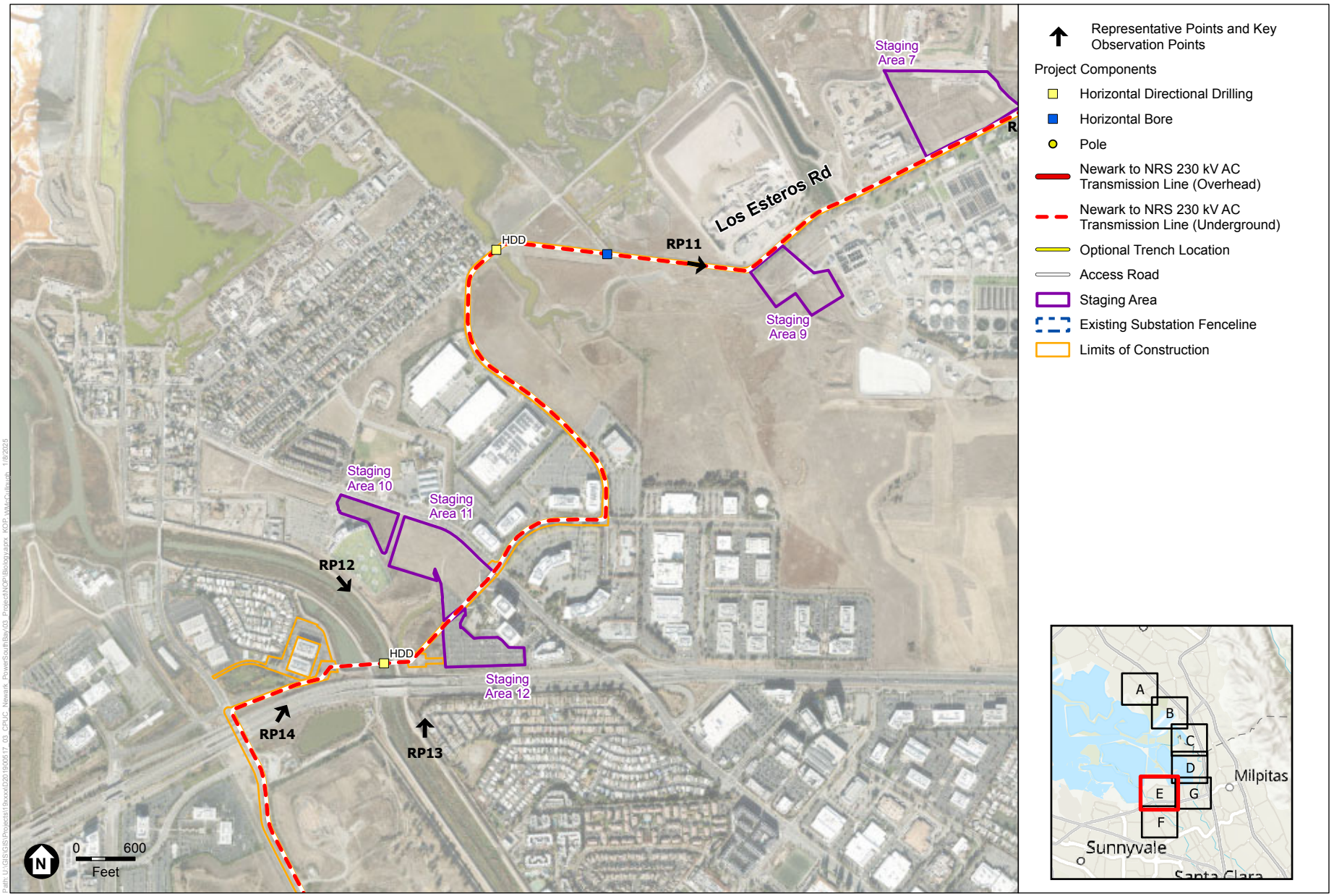
Figure 3.1-3C
Location of Representative Viewpoints and Key Observation Points



SOURCE: ESA, 2024

Power the South Bay Project

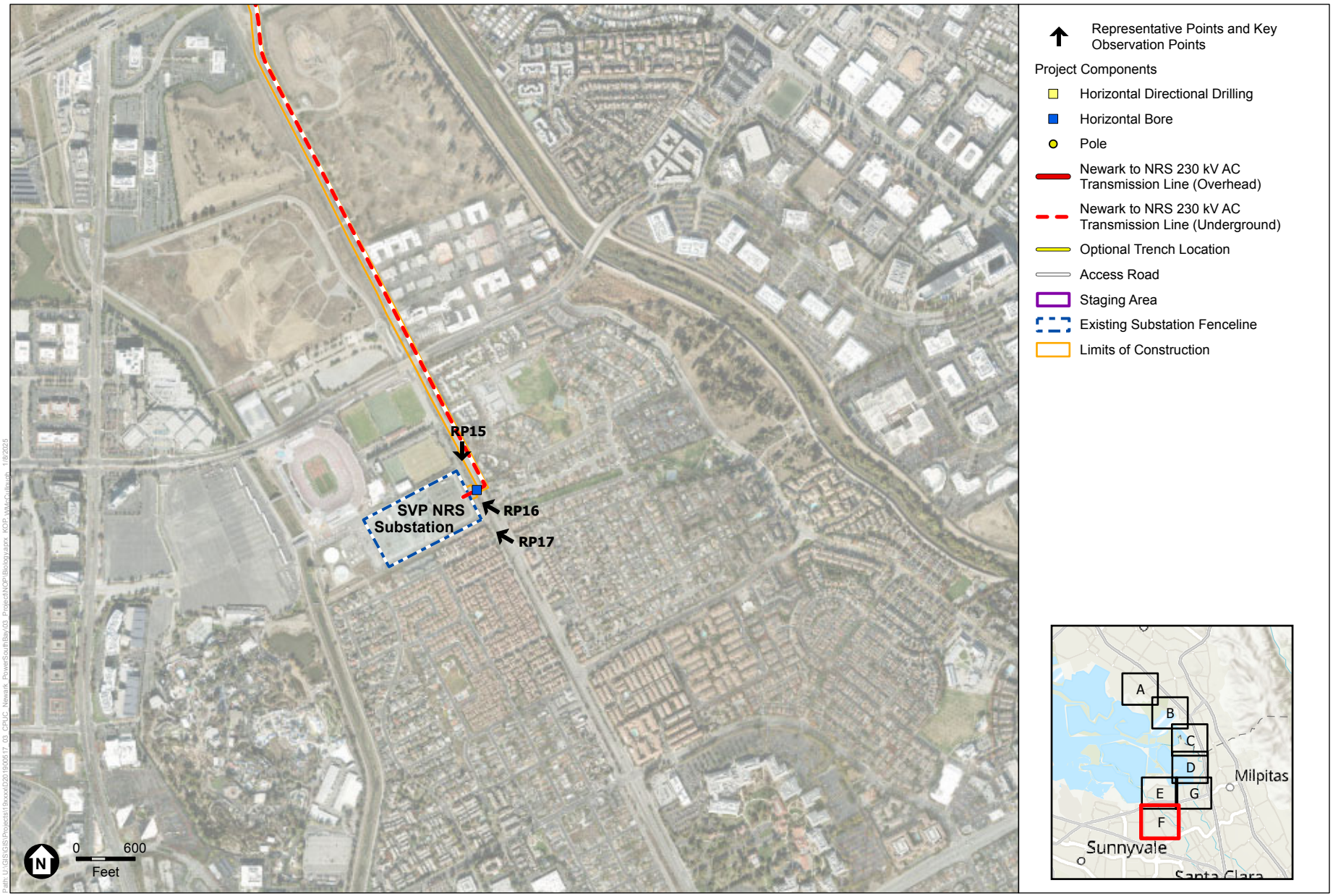
Figure 3.1-3D
Location of Representative Viewpoints and Key Observation Points



SOURCE: ESA, 2024

Power the South Bay Project

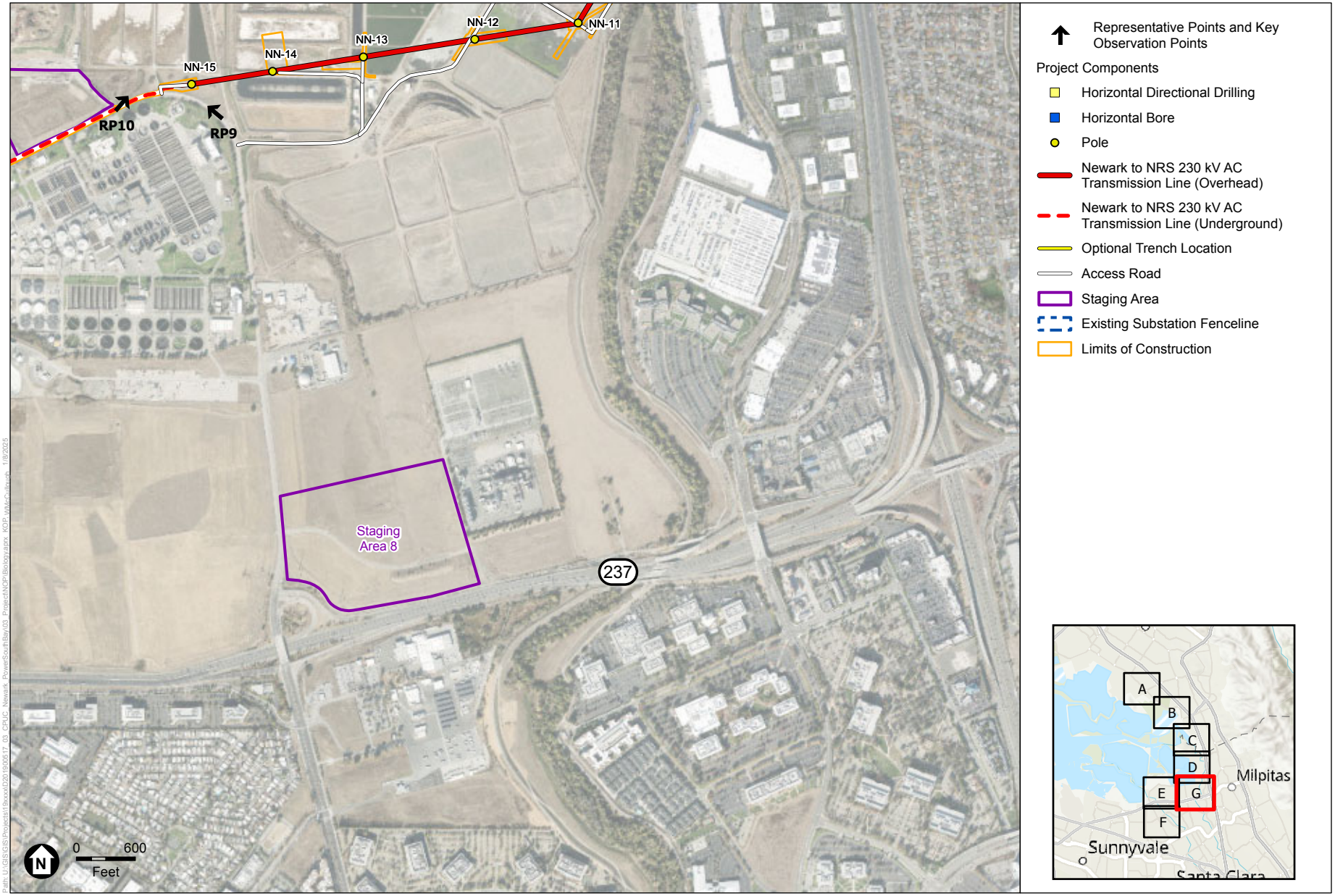
Figure 3.1-3E
Location of Representative Viewpoints and Key Observation Points



SOURCE: ESA, 2024

Power the South Bay Project

Figure 3.1-3F
Location of Representative Viewpoints and Key Observation Points



SOURCE: ESA, 2024

Power the South Bay Project

Figure 3.1-3G
Location of Representative Viewpoints and Key Observation Points

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4A
Viewpoint 1 - Looking Southwest

ESA

2019/D20190017.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

2019/D20190017.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4B
Viewpoint 2 - Looking Southwest

2019/D201900517.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4C
Viewpoint 3 - Looking Northeast

ESA

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4D
Viewpoint 4 - Looking West

ESA

2019/D201900517.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4E
Viewpoint 5 - Looking South

ESA

2019/D20190017.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

Figure 3.1-4F, Viewpoint 6, shows a motorist's perspective looking south on McCarthy Boulevard toward the overhead and underground Newark to NRS 230 kV AC transmission line alignment and Staging Area 5. The foreground shows McCarthy Boulevard, vehicles, a median, sidewalk, trees, and utility lines. The middle ground shows undeveloped land where the Newark to NRS 230 kV AC transmission line alignment would transition from underground to overhead. The background shows the Diablo Mountain Range.

Figure 3.1-4G, Viewpoint 7, shows a pedestrian's perspective looking northwest on the Coyote Creek Trail toward the overhead Newark to NRS 230 kV AC transmission line alignment. The foreground shows the Coyote Creek Trail, vegetation, and a nearby warehouse. The middle ground shows utility lines and more warehouses. The background shows a distant hillside.

Figure 3.1-4H, Viewpoint 8, shows a motorist or pedestrian's perspective looking northwest on McCarthy Boulevard toward the overhead Newark to NRS 230 kV AC transmission line alignment. The foreground shows McCarthy Boulevard, the median, a sidewalk, trees, a vehicle, and open land beyond the road. The middle ground shows utility lines and larger trees. The background shows the Diablo Mountains.

Figure 3.1-4I, Viewpoint 9, shows a motorist's perspective from Los Esteros Road looking northwest toward the overhead and underground Newark to NRS 230 kV AC transmission line alignment. The foreground shows Los Esteros Road, a guard rail, and utility poles. The middle ground shows a ridge, more utility poles, and the area where the Newark to NRS 230 kV AC transmission line alignment would transition from overhead to underground. Nothing is visible in the background.

Figure 3.1-4J, Viewpoint 10, shows a motorist's perspective looking northeast on Los Esteros Road toward the underground Newark to NRS 230 kV AC transmission line alignment. The foreground shows Los Esteros Road, utility pipes, fencing, utility poles, and facility structures. The middle ground shows open, undeveloped land. The background shows the Diablo Mountain Range.

Figure 3.1-4K, Viewpoint 11, shows a motorist's perspective looking southeast on Los Esteros Road toward the Newark to NRS 230 kV AC transmission line alignment. The foreground shows Los Esteros Road, fencing, and utility poles. The middle ground shows utility poles. The background shows the Diablo Mountain Range.

Figure 3.1-4L, Viewpoint 12, shows a pedestrian's perspective looking southeast on the Guadalupe River Trail toward the Newark to NRS 230 kV AC transmission line alignment. The foreground shows the Guadalupe River Trail, the Guadalupe River, and the plant growth between them. The middle ground shows SR 237, utility poles, several large buildings, and Levi's Stadium. The background shows the Santa Cruz Mountain Range.

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4F
Viewpoint 6 - Looking South

ESA

2019/D20190051703 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4G
Viewpoint 7 - Looking Northwest

ESA

2019/D20190051703 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4H
Viewpoint 8 - Looking Northwest

ESA

2019/D20190017.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

2019/D201900517.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4I
Viewpoint 9 - Looking Northwest

ESA

2019/D20190051703 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4J
Viewpoint 10 - Looking Northeast

ESA

2019/D201900517.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4K
Viewpoint 11 - Looking Southeast

ESA

2019/D20190051703 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4L
Viewpoint 12 - Looking Southeast

ESA

Figure 3.1-4M, Viewpoint 13, shows a pedestrian's perspective looking north on the Guadalupe River Trail toward the underground Newark to NRS 230 kV AC transmission line alignment. The foreground shows the Guadalupe River Trail, nearby houses, fencing, and plant growth. The middle ground shows SR 237, utility poles, and commercial buildings, including the poles and nets of a driving range. The background is not visible.

Figure 3.1-4N, Viewpoint 14, shows a motorist's perspective looking northeast on SR 237 toward the underground Newark to NRS 230 kV AC transmission line alignment. The foreground shows SR 237, vehicles going by, guardrails, signage, and utility poles. The middle ground shows the nets and poles of a driving range and other commercial buildings. The background shows the Diablo Mountain Range.

Figure 3.1-4O, Viewpoint 15, shows a motorist's or pedestrian's perspective looking south on Lafayette Street toward the underground Newark to NRS 230 kV AC transmission line alignment and SVP NRS 230 kV Substation modification area. The foreground shows the intersection of Lafayette Street and Calle De Primavera with vehicles, traffic lights, and utility poles. The middle ground shows more utility poles and structures within the existing SVP NRS 230 kV Substation. Nothing is visible in the background.

Figure 3.1-4P, Viewpoint 16, shows a motorist's or pedestrian's perspective looking northwest on Lafayette Street toward the SVP NRS 230 kV Substation modification area. The foreground shows Lafayette Street, a bike lane, a sidewalk, the median, trees, and utility poles. The middle ground shows structures within the existing SVP NRS 230 kV Substation, other utility poles, and Levi's Stadium. Nothing is visible in the background.

Figure 3.1-4Q, Viewpoint 17, shows a motorist's or pedestrian's perspective looking northwest on Lafayette Street toward the SVP NRS 230 kV Substation modification area. The foreground shows Lafayette Street, a bike lane, the median, trees, houses, and utility poles. The middle ground shows structures within the existing SVP NRS 230 kV Substation, other utility poles, and Levi's Stadium. Nothing is visible in the background.

Figure 3.1-5, KOP 1, shows a motorist's or pedestrian's perspective looking south on McCarthy Boulevard and the North McCarthy Boulevard Bridge segment of the Bay Trail toward the overhead Newark to NRS 230 kV AC transmission line alignment. The foreground shows McCarthy Boulevard, a median, fencing, cars, and utility structures. The middle ground shows warehouses, office buildings, and utility structures, as well as trees and other low-lying vegetation within the Don Edwards San Francisco Bay National Wildlife Refuge (Don Edwards NWR). The background shows the Santa Cruz Mountain Range.

Figure 3.1-6, KOP 2, shows a pedestrian's perspective looking southwest on the Coyote Creek Trail toward the overhead Newark to NRS 230 kV AC transmission line alignment. The foreground shows the trail, plants and grasslands, and overhead utility lines. The middle ground shows distant buildings and facilities. The background shows the Santa Cruz Mountain Range.

2019/D20190017.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4M
Viewpoint 13 - Looking North

ESA

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4N
Viewpoint 14 - Looking Northeast

ESA

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2019/D20190051703 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4O
Viewpoint 15 - Looking South

ESA

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4P
Viewpoint 16 - Looking Northwest

2019/D201900517.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

2019/D201900517.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC, 2024

Power the South Bay Project

Figure 3.1-4Q
Viewpoint 17 - Looking Northwest

ESA

Existing View

Visual Simulation

2019/D201900517.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC 2024

Power the South Bay Project

Figure 3.1-5
Existing View and Visual Simulation from KOP 1

Existing View

Visual Simulation

2019/D2019005117.03 - CPUC Newark-NRS HVDC Project/05 Graphics-GIS-Modeling-USE AZURE/Illustrator

SOURCE: CPUC 2024

Power the South Bay Project

Figure 3.1-6
Existing View and Visual Simulation from KOP 2

3.1.3 Viewers and Viewer Sensitivity

The primary viewer groups potentially affected within the study area are motorists, recreational facility users, and residents within viewing distance of the Project. These viewers experience the study area within a context that includes existing substations, transmission line facilities, and other surrounding development and facilities.

3.1.3.1 Motorists

Motorists are the most prominent viewer group comprising both local and regional travelers who are familiar with the visual setting, and those who use the roads less regularly. Motorists traveling on Interstate 880 (I-880) are within the foreground viewshed of the Project alignment. Motorists on Interstate 680 (I-680), SR 262, SR 237, and U.S. Route 101 are within the middle ground viewshed of the Project alignment. Motorists traveling on these interstates and routes would experience views of the Project while traveling at highway speeds (i.e., at least 55 miles per hour).[1]

3.1.3.2 Recreationists

Recreationists frequent parks and trails in the study area, such as the Bay Trail, Don Edwards NWR, Coyote Creek Trail, Guadalupe River Trail, Alviso Park, and Santa Clara Soccer Park. Their views of the alignment range from relatively brief to lengthier, depending on speed, terrain conditions, and other factors. The sensitivity of this viewer group is considered moderate to high given the potential for extended-duration views.

3.1.3.3 Residents

Residential neighborhoods near the Project are located in the cities of San José and Santa Clara. Neither terminal site is located within a residential area, and the transmission lines are primarily located within areas with industrial, open space, or commercial land uses.

As seen on Figure 2-1, a residential neighborhood in Alviso is situated along the Newark to NRS 230 kV AC transmission line alignment following Los Esteros Road. As the transmission line continues, there are more residential neighborhoods near the SVP NRS 230 kV Substation along Lafayette Street. Depending on the proximity to the Project alignment, residential viewers tend to have high viewer exposure and awareness from publicly accessible viewing points 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 in the study area include nighttime highway traffic and safety lighting along I-880, I-680, SR 262, SR 237, and other roadways, as well as localized lighting from residential and commercial development in the cities of Fremont, Milpitas, San José, Santa Clara and smaller communities. Another source of light and glare in the study area is from the existing PG&E Newark 230 kV Substation and SVP NRS 230 kV Substation, including interior and exterior lighting from buildings, lighting from switch racks, and sensor lights.

[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).

3.1.5 Regulatory Setting

3.1.5.1 Federal

No applicable federal regulations related to aesthetics apply to the Project.

3.1.5.2 State

California Department of Transportation State Scenic Highway Program

California's Scenic Highway Program established by the Legislature in 1963 aims 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 the California Department of Transportation 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 Section 3.1.2.4, *Scenic Resources*, and seen on Figure 3.1-1, portions of I-680 (south of Mission Boulevard to the Alameda and Santa Clara County line) are eligible state scenic highways. The northern portion of I-680 (north of Mission Boulevard) and SR 84 are designated state scenic highways (Caltrans 2018).

3.1.5.3 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. As such, the following local policies and ordinances pertaining to aesthetics that would otherwise be relevant to the Project and alternatives are described below for informational purposes only.

City of Fremont General Plan

The City of Fremont General Plan states that Fremont's character is shaped in part by its vistas and aesthetics. Therefore, the General Plan includes goal, policies, and implementation actions that provide a foundation to protect scenic resources, buffer unsightly uses, plant and maintain trees, designate key roads as "scenic routes," integrate art and sculpture into buildings and landscapes, and beautify the city. The City of Fremont General Plan (City of Fremont 2011) includes the following goal, policies, and implementation actions related to aesthetics and visual resources:

> **Goal 4-5: City Beautiful.** Protection and enhancement of Fremont's aesthetic and visual character.
>
> > ***Policy 4-5.1: Buffering and Screening.*** Provide visual buffers or screening between adjacent uses which are potentially incompatible, such as industrial and residential uses. Buffers may consist of streets, setbacks, open space, landscaping, building design, reductions in height and bulk, and other site planning methods which minimize the

impacts of a particular use on its neighbors. On a smaller scale, activities on individual development sites which could detract from the visual quality or enjoyment of a property—such as mechanical equipment and trash collection areas—should be appropriately screened and buffered.

Policy 4-5.3: Undergrounding Utility Lines. Reduce the visual impacts of utility lines and poles along corridors by continuing to underground overhead lines within existing development, and by requiring underground utilities in new development.

Implementation 4-5.3.A: Utility Lines in New Development. Place utility distribution lines, electrical boxes, and transformers underground in new development and substantial redevelopment of existing properties consistent with the City's Utility Underground Ordinance.

Implementation 4-5.3.B: Impacts of Utilities. Review planned utility undergrounding, sidewalk repair, and other infrastructure projects to avoid unnecessary removal of important design features, trees, or historic features.

Policy 4-5.5: Scenic Routes. Maintain a network of designated scenic routes through Fremont. The visual features which contribute to scenic designations should be protected through land use, transportation, and capital improvement decisions, as well as landscaping, operations, and maintenance activities along these corridors.

A particular road or corridor may be considered scenic by virtue of its design or amenities, the terrain and natural features it traverses, or the views and visual importance it commands. In Fremont's case, the designation expresses intent to maintain or improve visual quality but does not necessarily limit abutting uses. For example, the designation of an arterial as a locally scenic roadway could affect the City's decision to use landscaping versus sound walls, or could result in a particular gateway being assigned a higher priority for improvement.

Implementation 7-2.1.A: Development Near Riparian Areas. Require proposed projects near riparian areas to protect the aesthetic, recreational, and biological benefits consistent with flood control and recharge objectives.

City of Fremont Zoning Ordinance

Ordinances from the City of Fremont's zoning code (City of Fremont 2024) related to aesthetics, specifically concerning exterior lighting in Chapter 18.50.050, Part d and Chapter 18.55.040, include the following:

18.50.050 – Development standards and requirements applicable to all industrial districts

(d) *Exterior Lighting*. Other than public or private street lights, exterior lighting shall be diffused and/or concealed in order to prevent illumination of adjoining properties or the creation of objectionable visual impacts on other properties or streets.

(e) *Fencing*. All fencing shall conform to the standards set forth in Chapter 18.171.

(f) *Solid Waste and Recycling Storage*. Internal and external storage of municipal solid waste, recyclables, and yard waste shall conform to the standards set forth in Section 18.190.440.

(g) *Utility and Equipment Screening*.

(1) Mechanical, meter and other equipment screening shall be required in accordance with Section 18.190.320.

(2) Electrical and utility transformers shall be placed underground or shall be screened by an architectural element and/or landscaping.

18.55.040 – Performance standards

(a) ***Standards Applicable to All Developments***. No dwelling, or other structure, shall be constructed until plans for such development have received a design review permit approval pursuant to Chapter 18.235 and the approval authority has made findings that such development will be consistent with the following performance standards:

(6) Exterior lighting, except street lights, shall be diffused or concealed in order to prevent illumination of adjoining properties or the creation of objectionable visual impacts on other properties.

City of Milpitas General Plan

The City of Milpitas General Plan (City of Milpitas 2021) includes the following goal and policies related to aesthetics and visual resources:

Goal CD-1: Strengthen Milpitas' identity and sense of place by reinforcing the community's distinctive, high-quality community form, natural landscape, and character.

***Policy CD 1-5*:** Maintain and enhance pedestrian and bicycle access and views to and from all local creek corridors.

***Policy CD 1-6*:** Emphasize landscaping as a fundamental design component, retaining mature landscaping when appropriate, to reinforce a sense of the natural environment and to maintain an established appearance.

***Policy CD 1-10*:** Minimize the visual impacts of public and private communication, service, and utility facilities by requiring the provider to incorporate sensitive site design techniques, including, but not limited to, the placement of facilities in less conspicuous locations, the undergrounding of facilities wherever possible, and the screening of facilities.

***Policy PROS 3-9*:** Encourage clustered development that preserves a sense of openness, particularly in areas adjacent to open spaces and scenic resources.

The City of Milpitas General Plan does not specifically identify scenic resources but highlights the important scenic value of local hillsides, parks, open spaces, creeks, ponds, and natural drainages.

City of Milpitas Zoning Ordinance

Ordinances from the City of Milpitas's zoning code (City of Milpitas 2024) related to aesthetics, specifically concerning exterior lighting in Chapter 18.55.040, Part 3, include the following:

XI-10-45.15 – Outdoor Lighting

45.15-3: Outdoor Lighting-General. Outdoor lighting should use the minimum wattage lights which will safely illuminate the area. Outdoor light sources shall be shielded so as

not to be directly visible from off-site. This section does not pertain to motion-induced/activated or motion-sensor security-type lights.

City of San José General Plan

The City of San José General Plan (City of San José 2024) includes the following policies related to aesthetics and visual resources:

> ***Policy LU-17.5*:** Apply the following guidelines to the design and construction of public and private right-of-way improvements in order to preserve and enhance the scenic and aesthetic qualities of hillside and rural areas:
>
> (1) Design streets in consideration of the natural topography and the landscape. Consider use of divided streets and grade separations.
>
> (2) Encourage use of crushed gravel walks and vegetation lined swales, and only construct concrete sidewalks, curbs, and gutters when required by the topography or other regulations.
>
> (3) Limit street lighting to intersections, and use low-intensity lighting appropriate for these areas.
>
> (4) Use finishes or colors that blend man-made materials within the public right-of-way with the natural surroundings.
>
> ***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 owned utility lines, Encourage undergrounding of all privately owned utility lines in new developments. Work with electricity and telecommunication providers to underground existing overhead lines.

The City of San José General Plan states that scenic resources within the city include the Santa Clara Valley, the hills and mountains that frame the valley floor, the baylands, and the urban skyline with its high-rise developments. Additionally, the General Plan (City of San José 2016) identifies three types of scenic routes that contribute to the City's overall image: Rural Scenic Corridors, which are routes that afford especially aesthetic views to scenic resources; Urban Corridors, which are all state and interstate highways within the City; and Gateways, which mark the entry points into the City or unique neighborhoods. No Rural Scenic Corridors are within the Project area.

City of San José Zoning Ordinance

Ordinances from the City of San José zoning code (City of San José 2025) related to aesthetics, specifically concerning height restrictions in Chapter 20.85, Part 3, and lighting in Chapter 20.55.103, include the following:

20.85.030 – Specific use height restrictions

Subject to the provisions of Section 20.85.010C., the following uses shall be subject to the following specific height restrictions when such uses are located in an area subject to this chapter as referenced in Sections 20.30.200, 20.40.200 and 20.50.200. In instances where multiple specific height restrictions would apply to a use described in this Section 20.85.030, other than uses located within an airport influence area, the more permissive applicable regulation shall govern. For uses located within an airport influence area, the most restrictive applicable regulations shall govern.

A. Communication towers and other structures. For communication towers, antennae and monopoles, net poles, and other similar non-building structural uses, including structures on top of buildings, such as energy-saving devices, bell towers, wireless communication antennae, and associated structures, specific height limits may be established in the context of development project review provided, however, that the maximum allowable height is one hundred fifty feet on sites with nonresidential or non-urban land use designations, and up to one hundred sixty feet on sites with an existing PG&E substation or high tension line corridor exceeding two hundred KV, or the maximum allowable building height for the subject property established elsewhere within Title 20, whichever is greater, if all the following criteria are met:

    1. The site, structure, and related use are located or constructed to minimize public visibility;

    2. The project provides visual amenities, such as landscaping, to address and offset the visual impacts associated with the project use and related structures; and

    3. The decision-maker reasonably determines that there is substantial evidence that technical necessity requires greater height, and, in the case of cellular facilities, the increased height will result in a reduction in the number of existing or future freestanding monopoles.

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.1.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.

City of Santa Clara General Plan

The City of Santa Clara General Plan (City of Santa Clara 2014) includes the following policy related to aesthetics, scenic, and visual resources:

> ***Policy 5.3.1-P27*:** Encourage screening of above-ground utility equipment to minimize visual impacts.

The Santa Clara General Plan does not specifically identify scenic resources.

City of Santa Clara Zoning Ordinance

Ordinances from the City of San José zoning code (City of Santa Clara 2024) related to aesthetics, specifically concerning light restrictions in Chapter 13.4, Part A, include the following:

13.4 Specific to Lighting

A. *General to All Lighting*

1. Site lighting shall be shielded by permanent attachments to the light fixture or frosted so that light sources are not visible from a public way and to prevent off-site glare and upward light pollution.

3.1.6 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the project by LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for the portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.1.6.1 LSPGC Applicant-Proposed Measures

LSPGC has identified the following Applicant-proposed measure (APM) to minimize impacts related to aesthetics for the Project. The impact analysis assumes that the following APMs would be implemented by LSPGC as part of their portion of work for the Project.

- **APM BIO-10: 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. All lighting near sensitive species habitat shall be directed away from these areas 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. Night work is not anticipated during O&M except during emergencies.

3.1.6.2 PG& Best Management Practices and Field Protocols

PG&E has proposed no best management practices or field protocols pertaining to aesthetics within PG&E's portion of the Project.

3.1.6.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to aesthetics within SVP's portion of the Project.

3.1.7 Significance Criteria

According to Appendix G of the CEQA *Guidelines*, except as provided in Public Resources Code Section 21099, 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.

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

3.1.8 Direct and Indirect Effects

3.1.8.1 Approach to Analysis

This analysis evaluates impacts on aesthetics and visual resources within public views associated with the Project's implementation. Data for this section were generated by reviewing the websites, planning and policy documents, and maps of counties and cities within the study area; viewing photographs and visual simulations of the project site; and 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-680 and SR 84) within or near the Project 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 Francisco–Oakland and San José Urbanized Areas. Therefore, consistent with the CEQA Guidelines Appendix G Checklist and Criterion c presented in Section 3.1.7, *Significance Criteria*, 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 3.1.5, *Regulatory Setting*, and are applied under Impact 3.1-3.

3.1.8.2 Direct and Indirect Effects of the Project

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

The Project would not have a substantial adverse effect on a scenic vista. (*No Impact*)

As noted in Table 3.1-1 and seen in Figure 3.1-1, there are designated or eligible scenic resources, but no designated scenic vistas, within 5 miles of the Project area. The impact on designated or eligible scenic resources in the Project area is analyzed under Impact 3.1-1. Therefore, there would be 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.

The Project would not substantially damage scenic resources within a state scenic highway. (*No Impact*)

As noted in Section 3.1.2.4, *Scenic Resources*, and shown on Figure 3.1-1, portions of I-680 (south of Mission Boulevard to the Alameda and Santa Clara County line) are eligible state scenic highways. This eligible portion of I-680 is over 1.2 miles away from the nearest Project component. The northern portion of I-680 (north of Mission Boulevard) and SR 84 are officially designated state scenic highways. The officially designated portion of I-680 is over 6 miles away, and SR 84 is over 8 miles away from the overhead Newark to NRS 230 kV AC transmission line alignment. The Project area would not be visible from these designated or eligible state scenic highways due to distance, intervening topography and landscape, and the movement and speed of travel. The combination of the reduced visual size of the overhead transmission line at long distances, potential obstructions in the landscape, and factors like speed while traveling makes it less likely for the project construction and components to be visible at these distances at highway speeds. Therefore, there would be 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.

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

Section 3.1.2, *Environmental Setting*, and Figures 3.1-4A through 3.1-4Q, provide an overview of the existing visual landscape and character within the study area, including photographs.

As noted in Table 3.1-1 and shown on Figure 3.1-1, there are designated or eligible scenic resources within 5 miles of the Project area. The scenic resources within 5 miles of the Project area that have a view of the Project include: high elevation points of the Diablo Mountain Range, Don Edwards NWR, portions of the Bay Trail network, Guadalupe River Trail, Alviso Park, Santa Clara Youth Soccer Park, two city of Fremont gateways, and the City of San José-designated urban corridors I-880 and SR 237.

Construction

Although construction equipment may temporarily introduce visually unappealing elements to the visual 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 12-mile transmission line alignment and 12 staging areas. Although these impacts would be most noticeable to nearby residents, motorists, and recreationists, the impacts would be temporary and short-term. Additionally, APM BIO-1 and APM TRA-3 state that once construction is complete in a given area, natural vegetation areas and roads, trails, and bicycle facilities temporarily disturbed or damaged by the Project's construction activities shall be restored to approximate preconstruction conditions. The implementation of these APMs would 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. As a result, the Project's construction would not conflict with applicable zoning and other regulations governing scenic quality in the area.

After the Project construction is completed, any remaining staging areas and equipment not removed during the pipeline construction would be removed. Additionally, APM BIO-1 and APM TRA-3, which require the restoration of temporarily disturbed natural vegetation areas, roads, trails, and bicycle facilities to approximate preconstruction conditions, would be implemented. Therefore, the impacts on aesthetics related to Project construction would be **less than significant**.

Operations and Maintenance

As shown in Table 2-1 in Chapter 2, the Newark to NRS 230 kV AC transmission line alignment would be approximately 12 miles in total length. Once constructed, 10 miles of the transmission line would be underground and not visible to viewers. Therefore, the remaining 2 miles of the Newark to NRS 230 kV AC transmission line alignment, which would be overhead and visible, would potentially conflict with applicable zoning and other regulations governing scenic quality in the study area. These overhead portions of the transmission line would be located at the PG&E

Newark 230 kV Substation in Fremont and traverse the San José–Santa Clara Regional Wastewater Facility (RWF) drying ponds area, extending from approximately the I-880/Dixon Road interchange to the east in San José and Milpitas, and Los Esteros Road at the RWF treatment facility to the west within San José.

The Diablo Mountain Range is located between 3–5 miles to the east of the visible components of the Project, placing it within the background zone. Although the general landscape of the Project study area is visible from this scenic resource, individual Project structures would not be visible because of the distance.

A portion of the Bay Trail network (Coyote Creek Trail), the City of Fremont's gateway (I-880 and Milpitas border), and the City of San José-designated urban corridors I-880 would be located within the foreground zone. The Don Edwards NWR, Guadalupe River Trail, Alviso Park, Santa Clara Youth Soccer Park, and SR 237 would be located within the middle ground zone of the viewshed along the overhead portions of the transmission line alignment. However, the Project components within the viewshed of the Guadalupe River Trail, Alviso Park, and Santa Clara Youth Soccer Park would be underground, and therefore, not visible to potential viewers. The Project would be visible from the remaining scenic resources, and viewer groups would include recreationists, motorists, and employees of nearby businesses.

The portion of the overhead transmission line at the PG&E Newark 230 kV Substation would be 0.1 mile in length and would consist of three structures ranging from 120–140 feet in height with a brushed or dull metal finish. These components would be within the city of Fremont and visible from a portion of the Bay Trail network (Boyce from Stevenson to Auto Mall segment) within the foreground zone. Four of City of Fremont's gateways (i.e., I-880 & Mowry Ave, Stevenson Blvd, Gateway Blvd, and Mission Blvd south), Bay Area Rapid Transit Line (Union City border to Milpitas border), and the San José-designated urban corridor I-680 would be located within the middle ground zone of the viewshed along the overhead portions of the transmission line alignment. Viewer groups would include recreationists, motorists, and employees of nearby businesses.

The longer portion of the overhead transmission line, approximately 1.9 miles in length, would span the RWF drying ponds and be within the City of San José boundaries, although a very small portion of the alignment would be within the City of Milpitas boundaries. This overhead segment would be supported by 11 structures from 120–135 feet in height with a brushed or dull metal finish, and span between the structures ranging from 250–1,300 linear feet. To illustrate the visual change that would result from the Project's implementation in this area, two visual simulations were prepared based on photographs taken at the identified KOPs, including segments of the Project visible from public views.

As shown in Figure 3.1-5, the view of the Project area from the North McCarthy Boulevard Bridge segment of the Bay Trail currently includes McCarthy Boulevard, a median, fencing, light posts, and numerous overhead utility structures, including street light standards and distribution of transmission line structures. The middle ground and background views also include industrial structures and natural features, including Don Edwards NWR and the Santa Cruz Mountain Range. The addition of the overhead Newark to NRS 230 kV AC transmission line alignment

would add new utility structures to the visual landscape. However, these structures would be similar in appearance to the existing structures and would not substantially block views, create a substantial visual contrast, or change the visual character and use of the area.

As shown in Figure 3.1-6, the view of the Project area from the Coyote Creek Trail segment of the Bay Trail currently includes vegetation and overhead utility structures in the foreground, with industrial structures at the RWF and Santa Cruz Mountain Range in the middle ground and background, respectively. The addition of the overhead Newark to NRS 230 kV AC transmission line alignment would add new utility structures to the visual landscape. However, as illustrated in the visual simulation, these new structures would be visually consistent with the existing utility structures and would not create a substantial visual contrast for recreationists and pedestrians using the trail. I-880, a designated urban corridor, is further east of the overhead transmission line alignment than the Coyote Creek Trail segment shown in the simulation; motorists' views from I-880 would be similar to those from KOP 2.

The Project would introduce new utility structures into views from scenic resources, particularly along the Coyote Creek Trail segment of the Bay Trail in the cities of San José and Milpitas. As shown in KOP 1 and KOP 2, these changes would create minimal visual contrast and would be consistent with the existing visual landscape, which already includes utility structures. Views of the Project from roadways, including designated urban corridors, would be brief and fleeting.

As for operation and maintenance activities, the Project would be monitored remotely daily and would only require monthly on-site inspections, involving trucks and equipment similar to those already used in the area. These operation and maintenance activities would not alter the existing visual character or degrade the visual quality of scenic resources in the study area.

The undergrounded portions of the transmission line, which span 10 miles of the Project's total 12 miles, would not be visible to the identified viewer groups in the cities of Fremont, San José, and Santa Cara. Once constructed, these underground portions of the Project would not permanently change the study area's existing visual character and quality. This would be consistent with these cities' policies and ordinances governing aesthetics and visual resources in those jurisdictions. Therefore, the Project would not impact these resources.

The visual changes from the overhead and visible components of the Project, as seen by viewer groups, would not substantially change the existing visual character or quality of the area or its surroundings. These components would be located in areas where similar utility structures currently exist and share design characteristics (e.g., height, placement, dull metal finish). This visual consistency in design characteristics of the overhead Project components would not create a strong visual contrast, as demonstrated in the visual simulations at KOPs 1 and 2. Therefore, the Project would not conflict with local zoning regulations or general plan policies related to project design and aesthetic consistency, such as Milpitas General Plan Policy CD 1-10 (placement of facilities), San José General Plan Policy IN-1.9 (compatibility with adjacent uses), and San José zoning ordinance 20.85.030 (structure height). Although the Project would be noticeable from public views, the visual changes would be visually consistent with the existing structures in the study area.

Consistent with municipal regulations and policies aimed at reducing the visual impact of utilities, 10 miles of the transmission line's 12-mile alignment would be underground and not visible to the identified viewer groups and from public view points. As for the remaining approximately 2 miles of the transmission line alignment, the overhead components would be visually consistent with existing utilities in the study area and not create a strong visual contrast at public viewpoints and for identified viewer groups. 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 not 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

Construction and modifications at the PG&E Newark 230 kV Substation and SVP NRS 230 kV Substation would occur within each of the existing facilities, where security and safety lighting already exist. Construction activities at the PG&E Newark 230 kV Substation and SVP NRS 230 kV Substation would not introduce new sources of glare or lighting that are substantially different from the existing environment.

As noted in Chapter 2, Section 2.8.2, *Staging Areas*, lighting would be installed in staging areas for security purposes. All lighting would be selectively placed, shielded, and directed downward to minimize impact to nearby sensitive receptors to the extent practicable. APM BIO-10 (see Table 2-12 Chapter 2) states that the use of outdoor lighting during construction shall be minimized whenever practicable. Night work would be avoided as practicable; however, given the large amount of construction planned within existing roads, local municipalities may require nighttime construction in certain areas of the Project. Nighttime construction is most likely to occur in commercial and industrial areas, rather than residential or other areas potentially sensitive to light.

To ensure that fugitive lighting (i.e., light trespass) is controlled at all times, such as when nighttime work is necessary or when lighting is needed for safety reasons, Mitigation Measure 3.1-2 would be implemented. Implementation of this measure 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. With implementation of APM BIO-10 and Mitigation Measure 3.1-2, the impacts under this criterion would be mitigated to a **less-than-significant** level.

Operations and Maintenance

Light and glare sources can be introduced through various project aspects, including the installation of safety and security lighting or the addition of reflective materials. The PG&E Newark 230 kV

Substation and SVP NRS 230 kV Substation are existing facilities where security and safety lighting already exist. The modifications at the PG&E Newark 230 kV Substation and SVP NRS 230 kV Substation would not introduce new sources of glare or light that are substantially different from the existing environment. Section 2.3.1, *Existing Utility System*, states that the existing components at both PG&E Newark 230 kV Substation and SVP NRS 230 kV Substation have non-reflective finishes and are gray in color. The Project components to be installed within the substations would be visually consistent with the existing substations. As noted in Section 2.8.5, *Overhead Transmission Line Construction*, the overhead transmission structures would be composed of non-reflective, dull galvanized steel. APM BIO-10 (see Table 2-12 in Chapter 2) states that the use of outdoor lighting during operation and maintenance would be minimized and night work is not anticipated except during emergencies. To further ensure that fugitive lighting is controlled at all times, such as when nighttime work is necessary or when lighting is needed for safety reasons, LSPGC would implement Mitigation Measure 3.1-2, which 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 by operations and maintenance activities. With implementation of APM BIO-10 and Mitigation Measure 3.1-2, the impacts under this criterion would be **less than significant**.

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

The use of outdoor lighting shall be minimized during construction, operations, 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 APM BIO-10 and Mitigation Measure 3.1-2 would ensure that impacts associated with light and glare would be less than significant.

3.1.9 Cumulative Effects Analysis

The geographic scope for the cumulative impacts associated with aesthetic and visual resources is the same as that described in Section 3.1.2.1, *Study Area*, 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 the 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 developments. 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.

3.1.9.1 Criterion a)

As concluded under Criterion a) in Section 3.1.8.2, *Direct and Indirect Effects of the Project*, the Project would have no impact on scenic vistas because no designated scenic vistas were identified within the aesthetics study area. Therefore, there would be no incremental impact that would be cumulatively considerable, and no cumulative impacts on designated scenic vistas would occur associated with the Project. (*No Impact*)

3.1.9.2 Criterion b)

As concluded under Criterion b) in Section 3.1.8.2, the Project would not substantially damage scenic resources within a state scenic highway since the combination of the reduced visual size of the overhead transmission line at long distances, potential obstructions in the landscape, and factors like speed while traveling makes it less likely for the project construction and components to be visible at these distances at highway speeds. Therefore, there would be no incremental impact that would be cumulatively considerable, and no cumulative impacts on state scenic highway would occur associated with the Project. (*No Impact*)

3.1.9.3 Criterion c)

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

As discussed in Impact 3.1-1, 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 the proposed tubular steel poles and overhead transmission line, there is a possibility that these proposed permanent structures could result in visual changes that may impact scenic quality in the area.

The cumulative projects listed in Table 3.0-1 include new and proposed residential developments, utility infrastructure, commercial spaces, and mixed-use developments, all of which would result in some level of new visual change to existing conditions. However, cumulative projects, like the Project, would be required to undergo consistency reviews with applicable local jurisdictions' zoning, design review, and other regulations governing scenic quality in the area. The Project, in combination with the cumulative projects, are anticipated to be consistent with applicable plans and regulation, notably those that govern scenic quality.

Given that Project construction would be temporary and 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 not be cumulatively considerable. This cumulative impact would be **less than significant**.

3.1.9.4 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 could 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. Further, Project construction, by nature, is temporary, thus would not permanently create a source of substantial light or glare. Project components are designed to be visually consistent with existing substations, therefore, would not introduce new sources or glare or light that would be substantially different from the existing environment.

As discussed above, the Project would implement APM BIO-10 and Mitigation Measure 3.1-2, which would direct minimizing the use of outdoor lighting during construction activities. Additionally, like the Project, the cumulative projects are anticipated to undergo consistency reviews with applicable local jurisdictions' zoning and other regulations, particularly those that address new sources of light or glare, which would address potential cumulative impacts that would result in adverse effects to daytime or nighttime views in the area. For these reasons, the Project, in combination with the cumulative projects, would not create a new source of substantial light or glare and would not be cumulatively considerable. This cumulative impact would be **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.1-2.
>
> **Significance after Mitigation:** With the implementation of APM BIO-10 and Mitigation Measure 3.1-2, the Project, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

3.1.10 References

Caltrans (California Department of Transportation). 2018. California State Scenic Highway System Map. Available: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed December 18, 2024.

Caltrans (California Department of Transportation). 2024. California State Scenic Highway Map. Available: https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed December 18, 2024.

Caltrans (California Department of Transportation). 2025. Setting Speed Limits. Available: https://dot.ca.gov/programs/safety-programs/setting-speed-limits. Accessed February 25, 2025.

City of Fremont. 2011. *City of Fremont General Plan.* Adopted December 2011. Available: https://www.fremont.gov/government/departments/community-development/planning-building-permit-services/plans-maps-guidelines/general-plan. Accessed December 19, 2024.

City of Fremont. 2024. Fremont Municipal Code, Chapter 18.55, O-S Open Space District. Available: https://www.codepublishing.com/CA/Fremont/html/Fremont18/Fremont1855.html. Accessed January 23, 2025.

City of Milpitas. 2021. *City of Milpitas General Plan 2040.* Adopted March 9, 2021. Available: https://www.milpitas.gov/370/Milpitas-2040-General-Plan. Accessed October 23, 2024.

City of Milpitas. 2024. Milpitas, CA Municode Codification. Available: https://library.municode.com/ca/milpitas/codes/code_of_ordinances?nodeId=TITXIZOPLAN_CH10ZO_S45HHICODI. Accessed January 23, 2025.

City of San José. 2016. *Envision San José 2040 General Plan Scenic Corridors Diagram*. Available at: https://www.sanjoseca.gov/home/showpublisheddocument/22565/636688980487230000. Accessed December 19, 2024.

City of San José. 2024. *Envision San José 2040 General Plan*. Adopted November 1, 2011; As Amended October 24, 2024. Available at: https://www.sanjoseca.gov/home/showpublisheddocument/22359/637928744399330000. Accessed December 2024.

City of San José. 2025. San José, CA Municode Codification. Available: https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT20ZO_CH20.85SPHERE_PT3SPUSHERE_20.85.030SPUSHERE. Accessed January 23, 2025.

City of Santa Clara. 2014. *City of Santa Clara 2010–2035 General Plan*. Adopted on November 16, 2010; Updated on December 9, 2014. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed October 28, 2024.

City of Santa Clara. 2024. Santa Clara Zoning Code, Title 18. July 2024. Available: https://www.codepublishing.com/CA/SantaClara/html/pdfs/SantaClara18.pdf. Accessed January 23, 2025.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

LSPGC (LS Power Grid California). 2025. Application of LS Power Grid California, LLC (U-247-E) for a Certificate of Public Convenience and Necessity Authorizing Construction of the Power the South Bay Project. Amended February 28, 2025.

3.2 Agriculture and Forestry Resources

This section evaluates the impacts of the Project on agriculture and forestry 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.

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 B**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to agriculture and forestry resources.

3.2.1 Environmental Setting

3.2.1.1 Regional Setting

The Project is located in the cities of Fremont, Milpitas, San José, and Santa Clara, within Alameda and Santa Clara counties. The counties of Alameda and Santa Clara do not currently contain a high quantity of farmland. A substantial portion of each county consists of urban and built-up land, and non-agricultural or natural vegetation. Unlike some neighboring counties, Alameda and Santa Clara counties have very little farmland. However, Santa Clara County historically had substantially more agricultural land than it does today (DOC 2022). This trend is evident as, between 2014–2016, Santa Clara ranked the sixth county in the state for the highest net loss of irrigated land, converting approximately 1,106 acres (DOC 2018). However, the rate of conversion has drastically increased since then, and neither county has been converting irrigated land at the same rate as the rest of the state. This is likely because the region has very little remaining irrigated farmland to convert.

In 2023, Santa Clara County's agricultural production had a gross value of approximately $371.5 million, marking a 3.5 percent increase from the prior year. The leading agricultural products in Santa Clara County in 2023 included nursery crops, mushrooms, lettuce, bell peppers, tomatoes, Asian vegetables, wine grapes, corn, broccoli, spinach, and cabbage crops (Santa Clara County 2023). In contrast, Alameda County's agricultural production in 2022 had a gross value of $54.3 million, which was a 1.67 percent decrease compared to 2012. The leading agricultural products in Alameda County in 2022 were fruit and nut crops, livestock, field crops, nursery products, and vegetable crops (Alameda County 2022).

3.2.1.2 Local Setting

The Project site is in the South San Francisco Bay Area crossing through the cities of Fremont, Milpitas, San José, and Santa Clara, in Alameda and Santa Clara counties. This region of the South Bay is characterized predominantly by urban and built-up land. The majority of agriculture in Santa Clara County occurs in the central and southern portions of the county, whereas the Project would be in the northwest portion of the county. Alameda County's agriculture occurs primarily in the eastern portion of the county; the Project is proposed to be in the southwestern part of the county. Both counties have very little agricultural land near the cities that are along the

South San Francisco Bay, where the Project is proposed. Furthermore, the Project site would not be located on or within lands zoned or designated as forest land by the California Department of Forestry and Fire Protection. A *forest* is defined by California Public Resources Code (PRC) Section 12220(g) as an area with a tree density exceeding 10 percent. There are no forest lands meeting this definition within the study area where the Project is proposed.

3.2.2 Regulatory Setting

3.2.2.1 Federal

Farmland Protection Policy Act

The National Agricultural Land Study of 1980–1981 highlighted increasing concerns regarding the conversion of farmland to non-agricultural land. The study found that at a national level, there could be concern regarding the ability of agricultural lands to provide for a growing demand for food. Therefore, the federal government initiated policies and programs to minimize the conversions of Prime Farmland to non-agricultural uses by federal activities (NALS 1981). Congress enacted the Agriculture and Food Act of 1981 (Public Law 97–98), which contained the Farmland Protection Policy Act to help preserve prime farmland throughout the country. The law and its implementing rules and regulations are intended to minimize the impact of federal programs on the unnecessary and irreversible conversion of farmland to non-agricultural uses. This law does not authorize the federal government to regulate the use of private or nonfederal land, nor does it affect the property rights of landowners.

The U.S. Natural Resources Conservation Service, which is the U.S. Department of Agriculture's primary private land conservation agency, provides information to help ensure that agricultural land is not converted unnecessarily. The agency's goal is to ensure that agricultural producers can protect natural resources and provide food for a growing population (NRCS 2024).

3.2.2.2 State

California Farmland Mapping and Monitoring Program

The California Department of Conservation sponsors the California Farmland Mapping and Monitoring Program (FMMP) and is responsible for establishing agricultural easements in accordance with PRC Sections 10250–10255. The FMMP provides a classification system based on technical soil ratings and current land use (DOC 2022). The FMMP is an informational service only and does not have regulatory jurisdiction over local land use decisions. The minimum land use mapping unit is 10 acres unless otherwise specified; smaller units of land are incorporated into the surrounding map classifications.

Maps of Important Farmland classify land into one of eight categories, defined as follows (DOC 2022):

- ***Prime Farmland***: Land that has the best combination of features to produce agricultural crops.
- ***Farmland of Statewide Importance***: Land other than Prime Farmland that has a good combination of physical and chemical features to produce agricultural crops.

- ***Unique Farmland***: Land of lesser quality soils used to produce the state's leading agricultural cash crops.
- ***Farmland of Local Importance***: Land that is of importance to the local agricultural economy.
- ***Grazing Land***: Land with existing vegetation that is suitable for grazing.
- ***Urban and Built-up Lands***: Land occupied by structures with a density of at least one dwelling unit per 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public utility structures, and other developed purposes.
- ***Land Committed to Non-agricultural Use***: Vacant areas and existing lands that have a permanent commitment to development but have an existing land use of agricultural or grazing lands.
- ***Other Lands***: Land that does not meet the criteria of the remaining categories.

The designations for Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are defined together under the terms "Agricultural Land" and "Farmland" (PRC Section 21060.1). Land designations in the vicinity of the study area primarily include "Urban and Built-Up Land" or "Other Land" as defined by the FMMP. However, some lands designated as Farmland of Local Importance are located near the Newark to (Northern Receiving Station) NRS 230-kilovolt (kV) AC transmission line, but this Project would not involve activity on those lands. There is no Farmland of Statewide Importance, Prime Farmland, or Unique Farmland along the Project alignment (DOC 2022).

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (California Government Code Section 51200 et seq.), commonly known as the Williamson Act, preserves open spaces and agricultural land in exchange for property tax breaks. This law discourages urban sprawl and prevents landowners from developing their property for commercial or residential uses. The Williamson Act is a state program implemented at the county level. Through this program, an agricultural landowner contractually agrees to retain land in agriculture, farmland, or open space for 10 years and, in return, is allowed to pay reduced property taxes. The term of the contract automatically renews each year unless a petition is submitted for nonrenewal or cancellation.

California Government Code

Chapter 6.7 of the Government Code (Sections 51100–51155) regulates timberlands in the state. A *Timberland production zone* is defined in Section 51104(g) as an area that has been zoned pursuant to Government Code Section 51112 or 51113 and is dedicated to and used for growing and harvesting timber, or for timber production and compatible uses. In this context, "compatible uses" includes any use that "does not significantly detract from the use of the property for, or inhibit, growing and harvesting timber" (Government Code Section 51104[h]). Watershed management, grazing, and the erection, construction, alteration, or maintenance of electric transmission facilities are examples of compatible uses. The general plans of cities and counties may use the term *timberland preserve zone*, which Government Code Section 51104(g) defines as equivalent to "timberland production zone."

3.2.2.3 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 agriculture and forestry resources that would otherwise be relevant to the Project and alternatives are described below.

No portion of the Project would cross into agricultural land in either Alameda or Santa Clara counties or in the cities of Fremont, Milpitas, or Santa Clara. Therefore, policies for agriculture in these counties or cities would not be applicable.

San José

The portion of the Newark to NRS 230 kV AC transmission line in San José is proposed to run along land zoned as agriculture. Additionally, there are proposed staging areas on land that is zoned for agriculture.

The open space and agricultural zoning districts chapter of the San José zoning ordinance outlines the land use and development regulations for these districts. According to the chapter, "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 and implementing the goals and policies of the general plan" (City of San José 2024a). The following goals from the City of San José General Plan pertaining to agriculture and forestry resources are applicable to the Project:

> **Goal LU-12: Urban Agriculture**. Expand the cultivation and sale of locally grown agriculture as an environmentally sustainable means of food production and as a source of healthy food for San José residents (City of San José 2024b).
>
> **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 (City of San José 2024b).

The Project's intended uses are utility facilities and temporary staging areas. This use is denoted in the San José Municipal Code as "Conditional" and "May be allowed in such designated districts, as an independent use, but only upon issuance of and in compliance with a special use permit" (City of San José 2024a).

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 LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.2.3.1 LSPGC Applicant-Proposed Measures

LSPGC has proposed no Applicant-proposed measures (APMs) pertaining to agriculture and forestry resources within LSPGC's portion of the Project.

3.2.3.2 PG&E Best Management Practices and Field Protocols

PG&E has proposed no best management practices or field protocols pertaining to agriculture and forestry resources within PG&E's portion of the Project.

3.2.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to agriculture and forestry resources within SVP's portion of the Project.

3.2.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in PRC Section 21099, the Project would result in a significant impact on agriculture and forestry 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 PRC Section 12220[g]), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]).

d) Result in the loss of forest land or conversion of forest land to non-forest use.

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

This analysis relies on agricultural maps produced by the Department of Conservation and other planning and resource agencies to determine whether the Project would directly or indirectly affect land used for agricultural or forestry purposes. This section evaluates impacts based on whether the Project would convert such lands to non-agricultural or non-forestry uses, conflict with existing zoning for agricultural and forestry uses, or involve other changes in the environment that would directly or indirectly affect these land uses.

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.

The Project would not 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. (*No Impact*)

The Project sites and alignments would not be located on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as defined by the Department of Conservation. The nearest Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to the Project site or alignment is approximately 1.0 mile southeast of Staging Area 7. The Project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural purposes.

Criterion b) Whether the Project would conflict with existing zoning for agricultural use, or a Williamson Act contract.

The Project would conflict with existing zoning for agriculture use, or a Williamson Act contract. (*No Impact*)

The Project would not involve any parcels under Williamson Act contracts. The nearest Williamson Act-contracted lands are located approximately 0.5 mile west of the proposed Newark to NRS 230 kV AC transmission line in Alviso. The Project alignment would cross through lands zoned in the city of San José as Agriculture (City of San José 2024c). A map of the zoning parcels for the Project alignment is provided in Section 3.11, *Land Use and Planning* (see Figure 3.11-1 c, *City of San José Zoning*). As discussed further in Section 3.11, *Land Use and Planning,* Section 20.20.100 of the City of San José Zoning Ordinance permits the construction of utilities on lands zoned as Agriculture, which would allow for the construction of necessary Project components on land in the city of San José with a conditional use permit; however, General Order 131-D, Section XIV.B exempts the Project from land use designations and zoning permitting. Furthermore, the

Project would not involve any land zoned for agriculture in the cities of Milpitas, Fremont, or Santa Clara. Therefore, the Project would be consistent with existing zoning and would not conflict with Williamson Act contracts.

Criterion c) Whether the Project would 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 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]). (*No Impact*)

No portion of the Project alignment would cross or be constructed, operated, and maintained on lands zoned or otherwise designated as timberland or forest land. Trees along the proposed alignment are predominantly ornamental street trees and would not be considered timber or forest as identified by the California Department of Forestry and Fire Protection; therefore, there is no land that meets the definition of forest land under PRC Section 12220(g). Construction of the Project would not conflict with land zoned as forest or timberland, nor would it result in the rezoning of forest land or timberland.

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 result in the loss of forest land or conversion of forest land to non-forest use. (*No Impact*)

As discussed, the Project would not be located upon or within lands zoned or designated as forest land. Mapping prepared by CAL FIRE identifies no forests in the Project area. None of the Project components are proposed in an area with a tree density exceeding 10 percent, which is the definition of a forest pursuant to PRC Section 12220(g). Because the Project is not proposed on forest lands, the Project would not lead to the loss or conversion of forest land.

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 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. (*No Impact*)

The Project would not involve any alterations to the current environment that could lead to the conversion of farmland into non-agricultural use or forest land into non-forest use. Much of the

Project alignment traverses land zoned as agriculture in the city of San José, but the Project would not require nor instigate a conversion of agricultural land to non-agricultural use. Furthermore, there would be staging areas located on land zoned as agriculture or on Farmland of Local Importance (Staging Area 7), but use of the staging areas would be temporary and the land would be returned to its former state after construction. The Project would not involve the conversion of agricultural land to non-agricultural use, conversion of forest land to non-forest use, and the staging areas would be returned to pre-Project conditions.

3.2.6 Cumulative Effects Analysis

As discussed in Section 3.2.5, *Direct and Indirect Effects*, the Project would not: (1) 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; (2) conflict with existing zoning for agriculture use, or a Williamson Act contract; (3) 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]); (4) result in the loss of forest land or conversion of forest land to non-forest use; and (5) 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. There would be no impact on agriculture and forestry resources attributable to the Project, and therefore, the Project would not contribute to any potential cumulative impacts associated with agriculture and forestry resources, and there would be no cumulative impact to agriculture and forestry resources attributable to the Project. (*No Impact*)

3.2.7 References

Alameda County. 2022. *2022 Crop Reports Alameda County*. Available: https://www.acgov.org/cda/awm/resources/stats.htm. Accessed November 13, 2024.

City of San José. 2024a. *San José Municipal Code.* Available: https://librarystage.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=SAN_JOSEMUCO. Accessed November 13, 2024.

City of San José. 2024b. *Envision San José 2040 General Plan. Adopted November 1, 2011; as amended on October 24, 2024.* Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan/gp-annual-review-and-amendments. Accessed November 13, 2024.

City of San José. 2024c. "Zoning Code – Municipal Code Title 20." Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/ordinances-proposed-updates/zoning-code-title-20. Accessed November 13, 2024.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

DOC (California Department of Conservation). 2018. *2016–2018 California Farmland Conversion Report*. Available: https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2016-2018/FCR/FCR_1618_Report.pdf. Accessed May 14, 2024.

DOC (California Department of Conservation). 2022. California Important Farmland Finder. Available: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed May 15, 2024

NALS (National Agricultural Lands Study). 1981. *National Agricultural Lands Study*. *Final Report 1981*. Available: https://farmlandinfo.org/wp-content/uploads/sites/2/2019/09/Final_Report_1.pdf. Accessed November 13, 2024.

NRCS (Natural Resources Conservation Service). 2024. Natural Resources Conservation Service. Available: https://www.nrcs.usda.gov/. Accessed November 13, 2024.

Santa Clara County. 2023. *County of Santa Clara 2023 Crop Report.* Available: https://files.santaclaracounty.gov/exjcpb1396/2024-10/crop-report-2023.pdf?VersionId=MDWr7AMGkMrtpvkOrY3t5LBVOdllf4gn. Accessed November 13, 2024.

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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 impacts, the *study area* is defined as the footprint of all Project components, including all areas of temporary 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 are based in part on air quality emissions and calculations estimated for the Project on behalf of LS Power Grid California, LLC (LSPGC) presented in **Appendix C**, *Air Quality, Greenhouse Gas, and Energy Calculations and Modeling*. The calculations were reviewed by Environmental Science Associates and were found to be adequate for use in this analysis as supplemented by Environmental Science Associates to revise the Newark Substation modification construction emissions to reflect PG&E's commitment to use Tier 4 interim compliant equipment and to revise the NRS Substation modification construction emissions to reflect no commitment by SVP to implement equipment controls (see Appendix C). 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 B**, *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 lies within the jurisdictional boundaries of the cities of Fremont, Milpitas, San José, and Santa Clara. The Project area is entirely within the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB encompasses all of Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin, and Napa counties and the southern portions of Solano and Sonoma counties. Within the SFBAAB, the Project is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD).

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 and for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

The following sections describe criteria pollutants that are considered a concern in this EIR analysis because the Project could increase their concentrations in the SFBAAB.

Nitrogen Dioxide

NO_2 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 (i.e., NO) and NO_2. Nitric oxide is often converted to NO_2 when it reacts with ozone or undergoes photochemical reactions in the atmosphere.

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 and NO_X. Volatile organic compounds are also referred to by the California Air Resources Board (CARB) as *reactive organic gases*. Reactive organic gases and NO_X are known as precursor compounds for ozone. Significant ozone production generally requires that ozone precursors 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 volatile organic compounds 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.

Carbon Monoxide

CO is a 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.

Particulate Matter

PM_{10} and $PM_{2.5}$ represent fractions of particulate matter that can be inhaled into air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are local while others, such as vehicular traffic, have a more regional effect. Particulates can damage materials and reduce visibility. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly or can contain adsorbed

gases (e.g., chlorides or ammonium) that may be injurious to health. Each year, an estimated 7,300–11,000 premature cardiopulmonary deaths in California are associated with exposures to particulate matter (CARB 2010).

Sulfur Dioxide

SO_2 is a colorless acidic gas with a pungent odor produced by the combustion of sulfur-containing fuels, such as oil, coal, and diesel. It has the potential to damage materials and cause health effects at high concentrations. SO_2 can irritate lung tissue and increase the risk of acute and chronic respiratory disease.

3.3.1.2 Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) and/or long-term (chronic or cancer-causing) adverse human health effects—injury or illness. TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources such as gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes nearly 200 compounds, including diesel particulate matter (DPM) emissions from diesel-fueled engines (CARB 2024a).

3.3.1.3 Existing Air Quality

BAAQMD monitors pollutant levels by using a network of monitoring stations throughout the SFBAAB. The closest ambient air quality monitoring station to the Project area is the San José–Jackson Street air quality monitoring station, approximately 5 miles southeast of the SVP NRS Substation. **Table 3.3-1** summarizes the ambient air quality data collected at the San José–Jackson Street air quality monitoring station from 2021 through 2023 for ozone, PM_{10}, $PM_{2.5}$, and NO_2 concentrations.

As shown in Table 3.3-1, based on data for the last 3 years, the 1-hour ozone CAAQS was exceeded in 2021. There were also exceedances of the 8-hour ozone CAAQS between 2021 and 2022. The $PM_{2.5}$ 24-hour standard was exceeded between 2021 and 2023.

TABLE 3.3-1
SUMMARY OF AIR QUALITY MONITORING DATA (2021–2023)

Pollutant	Applicable Standard	2021	2022	2023
Ozone				
Maximum 1-Hour Concentration (ppm)	0.09 ppm	**0.098**	0.090	0.087
Days 1-Hour CAAQS Exceeded		3	0	0
Maximum 8-Hour Concentration (ppm)	0.07 ppm	**0.084**	**0.074**	0.068
Days 8-Hour CAAQS/NAAQS Exceeded		4	1	0
Respirable Particulate Matter (PM_{10})				
Maximum 24-Hour Concentration—State/National (µg/m^3)		45.1/42.8	44.5/41.1	NA
Measured Days > 24-Hour CAAQS	50 µg/m^3	0	0	0
Measured Days > 24-Hour NAAQS	150 µg/m^3	0	0	0
Annual-Average CAAQS (µg/m^3)	20 µg/m^3	**20.1**	**21.3**	NA

TABLE 3.3-1
SUMMARY OF AIR QUALITY MONITORING DATA (2021–2023)

Pollutant	Applicable Standard	2021	2022	2023
Fine Particulate Matter ($PM_{2.5}$)				
Maximum 24-Hour Concentration (µg/m^3)	35 µg/m^3	**38.1**	**36.2**	**49.0**
Measured Days > 24-Hour NAAQS		1	2	1
Annual-Average CAAQS (µg/m^3)	12 µg/m^3	8.9/8.8	10.1/10.1	8.2/8.1
Nitrogen Dioxide				
Maximum 1-Hour Concentration—State	0.18 ppm	**0.050**	**0.050**	**0.050**
Days 1-Hour CAAQS Exceeded		0	0	0
Maximum 1-Hour Concentration—National	0.100 ppm	**0.045**	**0.043**	**0.042**
Days 1-Hour NAAQS Exceeded		0	0	0
Annual-Average NAAQS	0.053 ppm	0.009	0.009	0.009

NOTES:
µg/m^3 = micrograms per cubic meter; CAAQS = California ambient air quality standard; NA = not available; NAAQS = national ambient air quality standard; NO_2 = nitrogen dioxide; 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; ppm = parts per million

Bold values are in excess of applicable standards. 2021, 2022, and 2023 data are from the San José–Jackson Street monitoring station.

SOURCE: CARB 2024b.

3.3.1.4 Sensitive Receptors

In this air quality analysis, *sensitive receptors* are generally defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, residences, and day care centers. The reasons for greater than average sensitivity include preexisting health problems, proximity to emissions sources, and duration of exposure to air pollutants. Schools, day care centers, hospitals, and convalescent homes are considered relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality–related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually spend extended periods of time at home, which results in greater exposure to ambient air quality.

There are no sensitive receptors within 1,000 feet of the existing PG&E Newark 230-kilovolt (kV) Substation, and the nearest sensitive receptors are residences approximately 0.3 mile to the northwest. The nearest sensitive receptors to the existing SVP Northern Receiving Station (NRS) 230 kV Substation are residences approximately 82 feet to the south and approximately 227 feet to the east. Scattered residences are also present along the alignment of the proposed transmission lines, with the closest being approximately 20 feet from the proposed underground Newark to NRS 230 kV transmission line near the NRS Substation. The nearest sensitive receptors to the staging areas are residences approximately 660 feet north of Staging Area 1. The sensitive receptors within 1,000 feet of the Project site and transmission line alignments are described below.

Table 3.3-2 summarizes the locations of sensitive receptors near the various Project components. As shown, the nearest sensitive receptors to the Project site/alignments are single-family residences.

The closest sensitive receptors are approximately 20 feet from the underground Newark to NRS 230 kV transmission line near the existing NRS Substation. The closest sensitive receptors to the NRS Substation are approximately 82 feet to the south.

TABLE 3.3-2
NEAREST SENSITIVE RECEPTORS TO PROJECT COMPONENTS

Project Component	Nearest Sensitive Receptors	Receptor Type	Approximate Distance to Nearest Sensitive Receptor
Northern Receiving Station Substation	Single- and Multi-family Dwellings	Residential	82 feet
	Kathryn Hughes Elementary School	School	580 feet
Transmission Lines	Single-Family Dwelling	Residential	20 feet
Staging Areas	Single-Family Dwelling	Residential	660 feet

SOURCE: Data compiled by Environmental Science Associates in 2024 (see Appendix C).

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 that each regional planning or air pollution control agency 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, or persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollution levels that are somewhat above ambient air quality standards before adverse health effects are observed. **Table 3.3-3** identifies the current NAAQS along with the corresponding State of California standards (the CAAQS).

By law, USEPA must set the NAAQS at levels necessary to protect public health with an adequate margin for safety. See Section 3.3.1.1, *Criteria Air Pollutants*, for a brief description of the health effects of exposure to criteria air pollutants.

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. An "unclassified" designation indicates that air quality and other relevant information is insufficient to determine whether the area is attainment or nonattainment. As shown in Table 3.3-3, the Project area is designated as a nonattainment area for the federal 8-hour ozone standard and the federal 24-hour $PM_{2.5}$ standard and is in attainment for all other federal ambient air quality standards. The state-level attainment status of the Project area is discussed further below.

TABLE 3.3-3
FEDERAL AND STATE 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	NA	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 ppm	A	9 ppm	A
Nitrogen Dioxide (NO_2)	1 hour	0.18 ppm	A	0.100 ppm	U
	Annual	0.030 ppm	NA	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	NA	NA	0.03 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	NA	NA
Fine Particulate Matter ($PM_{2.5}$)	24 hours	NA	NA	35 µg/m^3	N
	Annual	12 µg/m^3	N	12 µg/m^3	U/A
Sulfates	24 hours	25 µg/m^3	A	NA	NA
Lead	30 days	1.5 µg/m^3	A	NA	NA
	Cal. Quarter	NA	NA	1.5 µg/m^3	A
	Rolling 3-month average	NA	NA	0.15	U
Hydrogen Sulfide	1 hour	0.03 ppm	U	NA	NA
Visibility-Reducing Particles	8 hours	See Note g	U	NA	NA

NOTES:

A = Attainment; N = Nonattainment; U = Unclassified; NA = 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 U.S. Environmental Protection Agency (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. State standard = annual geometric mean; national standard = annual arithmetic 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.

SOURCE: BAAQMD 2017a

The federal CAA Amendments require each state to prepare an air quality control plan referred to as the *State Implementation Plan*. The federal CAA Amendments added a requirement for states containing areas that violate the national standards to revise their State Implementation Plans to incorporate additional control measures to reduce air pollution. The State Implementation Plan 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 State Implementation Plans 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.

NAAQS and CAAQS have been set at levels considered safe to protect the public, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection 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 2024c). 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 California CAA (California Health and Safety Code Section 39600 et seq.), like its federal counterpart, calls for the designation of areas as "attainment," "nonattainment," or "unclassified" with respect to the CAAQS. The Project area is currently designated as nonattainment for the following CAAQS: 1-hour and 8-hour ozone, 24-hour PM_{10}, and annual-average PM_{10} and $PM_{2.5}$. The Project area is designated as attainment or unclassified with respect to the other state standards.

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 could be employed by CARB and the air districts to reduce PM_{10} and $PM_{2.5}$ (collectively referred to as particulate matter [PM]). The legislation established a process for achieving near-term emissions reductions in PM throughout California ahead of federally required deadlines for $PM_{2.5}$ and provided new direction on PM emissions reductions in those areas not subject to federal requirements for PM. 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 emissions 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.

Toxic Air Contaminants

The California Health and Safety Code defines TACs as air pollutants that may cause or contribute to an increase in mortality or in serious illness, or that may pose a present or potential hazard to human health. The state Air Toxics Program was established in 1983 under Assembly Bill 1807 (Tanner). The program involves a two-step process: risk identification and risk management. A total of 243 substances have been designated TACs under California law, including the 189 (federal) hazardous air pollutants.

Off-Road Diesel Emissions

The CARB In-Use Off-Road Diesel-Fueled Fleets Regulation applies to all self-propelled off-road diesel vehicles of 25 horsepower or greater that are used in California, and to most two-engine vehicles (except on-road two-engine sweepers). This includes rental or leased fleet vehicles. CARB's goal is to gradually reduce the emissions of the statewide construction vehicle fleet through turnover, repowering, or retrofitting. New engine emissions requirements were grouped into tiers based on the year in which the engine was built (CARB 2024d). In 2014, new engines were required to meet Tier 4 Final standards, which are the most stringent emissions standards for off-road vehicle engines to date. The goal of the In-Use Off-Road Diesel-Fueled Fleets Regulation is to reduce emissions of particulate matter (PM_{10} and $PM_{2.5}$) and NO_X from off-road heavy-duty diesel vehicles in California (CARB 2024e). This regulation also limits idling to 5 minutes, requires a written idling policy for larger vehicle fleets, and requires fleet operators to provide information on their engines to CARB and label vehicles with a CARB-issued vehicle identification number.

Air 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 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. The primary goal of this measure is to reduce public health impacts from diesel emissions, but compliance with the regulation also results in greenhouse gas (GHG) emissions reductions and energy savings in the form of reduced fuel consumption from unnecessary idling.

Valley Fever

On October 11, 2019, Assembly Bill 203 was enacted to add Section 6709 to the Labor Code, relating to occupational safety and health. This law requires construction employers engaging in specified work activities or vehicle operation in counties where Valley Fever is defined as highly endemic to provide effective awareness training on Valley Fever to all employees annually, and before employees begin work that is reasonably anticipated to cause substantial dust disturbance.

This law requires that the training cover specific topics and authorizes inclusion of the training in the employer's injury and illness prevention program training or as a standalone training program. The training must include the following topics:

1. What Valley Fever is and how it is contracted.
2. High-risk areas and the types of work and environmental conditions during which the risk of contracting Valley Fever is highest.
3. Personal risk factors that may create a higher risk for some individuals.
4. Methods for preventing personal and environmental exposure.
5. The importance of early detection, diagnosis, and treatment to help prevent the disease from progressing.
6. Recognizing common signs and symptoms of Valley Fever.
7. The importance of reporting symptoms to the employer and seeking medical attention from a physician and surgeon for appropriate diagnosis and treatment.
8. Common treatment and prognosis for Valley Fever.

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. It should be noted, however, that the CPUC's authority does not preempt special districts, such as the Bay Area Air Quality Management District.

Bay Area Air Quality Management District

BAAQMD is the regional agency with jurisdiction over the nine-county region located in the SFBAAB. The Association of Bay Area Governments, Metropolitan Transportation Commission, county transportation agencies, cities and counties, and various nongovernmental organizations also participate in the efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs. BAAQMD is responsible for attaining and/or maintaining air quality in the region within federal and state air quality standards. Specifically, BAAQMD has the responsibility to monitor ambient air pollutant levels throughout the region and to develop and implement strategies to attain the applicable federal and state standards.

Rules and Regulations

BAAQMD does not have the authority to regulate motor vehicle emissions. Specific rules and regulations adopted by BAAQMD limit the emissions that can be generated by various stationary sources and identify specific pollution reduction measures that must be implemented in association with various activities. These rules regulate not only emissions of the six criteria air pollutants, but also sources of TAC emissions. Stationary sources are regulated through BAAQMD's permitting

process and standards of operation. Through this permitting process, including an annual permit review, BAAQMD monitors the generation of stationary-source emissions and uses this information when developing its air quality plans. Any stationary emissions sources constructed as part of the Project would be subject to the BAAQMD Rules and Regulations. Both federal and state ozone plans rely heavily upon stationary-source control measures set forth in BAAQMD's Rules and Regulations.

Per its Policy and Procedure Manual, BAAQMD requires implementation of Best Available Control Technology for Toxics and would deny an Authority to Construct or a Permit to Operate for any new or modified source of TACs that results in a cancer risk greater than 10 in 1 million or a chronic or acute hazard index of 1.0. The permitting process under BAAQMD Regulation 2, Rule 5, requires a health risk screening analysis, the results of which are posted on the BAAQMD website. These permitting requirements are developed by BAAQMD to ensure that the health risks of stationary sources are below applicable standards.

BAAQMD has also identified a series of best management practices (BMPs) for the control of fugitive dust generated during construction activities. These measures, which focus on reducing dust generated by excavation, material movement, and movement of off-road equipment on unpaved surfaces, are considered sufficient by BAAQMD to reduce construction dust–related impacts to a less-than-significant level (BAAQMD 2023a).

BAAQMD Air Quality Plan

For state air quality planning purposes, the SFBAAB is classified as a serious nonattainment area for the 1-hour ozone standard. The "serious" classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that BAAQMD update the Clean Air Plan every 3 years to reflect progress in meeting the air quality standards and incorporate new information regarding the feasibility of control measures and new emissions inventory data (Sections 40924 and 40925 of the California Health and Safety Code). The Bay Area's record of progress in implementing previous measures must also be reviewed. The plans for the air basin are prepared with the cooperation of the Metropolitan Transportation Commission and Association of Bay Area Governments.

In April 2017, BAAQMD adopted the *2017 Clean Air Plan*, whose primary goals are to protect public health and to protect the climate (BAAQMD 2017b). The plan includes a wide range of proposed control measures to reduce combustion-related activities, decrease fossil fuel combustion, improve energy efficiency, and decrease emissions of potent GHGs. The *2017 Clean Air Plan* updates the *Bay Area 2010 Clean Air Plan* and complies with state air quality planning requirements as codified in the California Health and Safety Code (although the 2017 plan was delayed beyond the code's 3-year update requirement). The SFBAAB is designated nonattainment for both the 1-hour and the 8-hour state ozone standards. In addition, emissions of ozone precursors in the SFBAAB contribute to air quality problems in neighboring air basins. Under these circumstances, state law requires that the Bay Area's Clean Air Plan include all feasible measures to reduce emissions of ozone precursors and to reduce the transport of ozone precursors to neighboring air basins.

The *2017 Clean Air Plan* contains 85 measures to address reduction of several pollutants: ozone precursors, particulate matter, TACs, and GHGs. Other measures focus on a single type of pollutant: potent GHGs such as methane and black carbon that consists of harmful fine particles that affect public health. These control strategies are grouped into the following categories:

- Stationary Source Measures
- Transportation Control Measures
- Energy Control Measures
- Building Control Measures
- Agricultural Control Measures
- Natural and Working Lands Control Measures
- Waste Management Control Measures
- Water Control Measures
- Super GHG Control Measures

BAAQMD CEQA Guidelines and Thresholds of Significance

In December 1999, BAAQMD adopted its *CEQA Guidelines—Assessing the Air Quality Impacts of Projects and Plans* as a guidance document to provide governmental lead agencies, consultants, and project proponents with uniform procedures for assessing air quality impacts and preparing the air quality sections of environmental documents for projects subject to CEQA. BAAQMD's *CEQA Guidelines* is an advisory document and local jurisdictions are not required to use the methodology it outlines. 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 would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts.

BAAQMD updated the 1999 CEQA *Air Quality Guidelines* in 2010. In May 2011, BAAQMD adopted an updated version of its thresholds of significance for use in determining the significance of projects' environmental effects under CEQA and published its *CEQA Air Quality Guidelines* for consideration by lead agencies. The 2011 *CEQA Guidelines* thresholds lowered the previous (1999) thresholds of significance for annual emissions of reactive organic gases, NO_X, and PM_{10}, and set a standard for $PM_{2.5}$ and fugitive dust. The 2011 CEQA Guidelines also include methodologies for evaluating risks and hazards for the siting of stationary sources and of sensitive receptors.

The BAAQMD resolution adopting the significance thresholds in 2010 and 2011 was set aside by the Alameda County Superior Court on March 5, 2012. On August 13, 2013, the California Court of Appeal issued a full reversal of the Superior Court's judgment, and on December 17, 2015, the California Supreme Court reversed the appellate court's judgment in part and remanded the case for further consideration consistent with the Supreme Court opinion. The California Supreme Court ruled unanimously that CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project" (*California Building Industry Association v. Bay Area Air Quality Management District* [December 17, 2015, Case No. S213478]). The Supreme Court confirmed that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future residents or users." The court also held that when a project has "potentially significant exacerbating effects on existing environmental hazards," those impacts are properly within the scope of CEQA because they can

be viewed as impacts of the project on "existing conditions" rather than impacts of the environment on the project.

BAAQMD most recently updated its CEQA Air Quality Guidelines in April 2022; these guidelines continue to provide direction on recommended analysis methodologies and thresholds for the evaluation of impacts. While the 2022 CEQA Air Quality Guidelines updated the thresholds of significance for climate impacts from GHG emissions, the criteria pollutant thresholds of significance remain unchanged from those adopted in 2011. The analysis presented below accounts for changes to methodology set forth in BAAQMD's 2022 Guidelines.

City of Fremont

The following goal, policies, and implementation measures from the City of Fremont General Plan pertaining to air quality are applicable to the Project (City of Fremont 2011):

Goal 7-7: Air Quality. Air quality improved over current conditions that meets or exceeds State and Regional standards.

Policy 7-7.1: Cooperation to Improve Regional Air Quality. Support and coordinate air quality planning efforts with other local, regional, and State agencies to improve regional air quality.

Implementation 7-7.1.A: Monitor and Control Air Pollutants. Support Bay Area Air Quality Management District (BAAQMD) efforts to monitor and control air pollutants from stationary and non-stationary sources.

Implementation 7-7.1.B: Permits for Projects that may Impact Air Quality. Require new stationary sources with potential air quality impacts to obtain necessary permits from the BAAQMD.

Implementation 7-7.1.D: Include Air Quality in Environmental Impact Process. Review proposed projects for their potential to affect air quality conditions during the environmental impact process.

Implementation 7-7.1.G: Air Emission Standards. Promote enforcement of air emission standards by BAAQMD.

Policy 7-7.2: Reduce Air Pollution Levels. Reduce City of Fremont air contaminant levels and particulate emissions below BAAQMD attainment levels, in particular, ozone and particulate matter levels.

Implementation 7-7.2.A: Construction Practices. Require construction practices that reduce dust and other particulate emissions and require watering of exposed areas at construction sites.

Policy 7-7.3: Land Use Planning to Minimize Health Impacts from Toxic Air Contaminants. Coordinate land use planning with air quality data and local transportation planning to reduce the potential for long-term exposure to toxic air contaminants (TAC) from permanent sources that affect the community.

Implementation 7-7.3.A: Limit New TAC Sources. Evaluate new sources of TAC emissions pursuant to BAAQMD guidelines and thresholds for an increased health risk

of no more than 10 additional incidents of cancer per million exposures or contribute to a cumulative risk in excess of 100 additional incidents of cancer per million exposures.

Implementation 7-7.3.C: Incorporate TAC Controls with New Development. New development projects with sensitive receptors within 1000 feet of a freeway or major TAC source shall assess the TAC health risk for the site and incorporate, to the maximum extent feasible, risk reduction measures to reduce exposure to TAC. Risk reduction measures may include, but not limited to, project phasing, site orientation, distance separations, landscape buffering, building air filtration systems, modified building design or building type, or off site improvements at a TAC source.

Policy 7-7.4: Air Quality Impact of Industry. Reduce the air quality impacts created by truck traffic, hazardous materials, and industry.

Implementation 7-7.4.B: Enforcement of Air Quality Regulations. Encourage stationary air pollutant sources to reduce emissions, and encourage enforcement by the relevant regulatory agencies when attainment levels are not met.

City of Milpitas

The City of Milpitas General Plan contains the following goal, policies, and actions pertaining to air quality that are applicable to the Project (City of Milpitas 2021).

Goal CON-7: Implement a proactive approach to maintain and improve air quality within Milpitas and the region.

Policy CON 7-1: Ensure that land use and transportation plans support air quality goals through a logical development pattern that focuses growth in and around existing urbanized areas, locates new housing near places of employment, encourages alternative modes of transportation, supports efficient parking strategies, reduces vehicle miles traveled, and requires projects to mitigate significant air quality impacts.

Policy CON 7-2: Minimize exposure of the public to toxic or harmful air emissions and odors through requiring an adequate buffer or setback distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, including, but not limited to, industrial, manufacturing, and processing facilities, high-volume roadways, and industrial rail lines. New sensitive receptors, such as residences (including residential care and assisted living facilities for the elderly), childcare centers, schools, playgrounds, churches, and medical facilities shall be located away from existing point sources of air pollution such that excessive levels of exposure do not result in unacceptable health risks. Compliance shall be verified through the preparation of a Health Risk Assessment when deemed necessary by the Planning Director.

Policy CON 7-4: Require projects to adhere to the requirements of the BAAQMD.

Policy CON 7-5: Use the City's development review process and the California Environmental Quality Act (CEQA) to evaluate and mitigate the local and cumulative effects of new development on air quality.

Policy CON 7-6: Coordinate with the CARB and the BAAQMD to properly measure air quality emission sources and enforce the standards of the Clean Air Act.

Policy CON 7-7: Comply with regional, state, and federal standards and programs for control of all airborne pollutants and noxious odors, regardless of source.

Policy CON 7-8: Consider the health risks associated with TACs when reviewing development applications.

Policy CON 7-9: Coordinate with Santa Clara County and nearby cities to implement regional greenhouse gas (GHG) reduction plans and to consolidate efforts to reduce GHGs throughout the county as appropriate.

Policy CON 7-11: Encourage improvements and design features that reduce vehicle delay such as bus turnouts, and synchronized traffic signals for new development to reduce excessive vehicle emissions caused by idling.

Policy CON 7-12: Encourage and prioritize infrastructure investments and improvements that promote safe walking, bicycling, and increased transit ridership.

Policy CON 7-13: Implement energy policies and actions that have co-benefits of reduced air pollution and greenhouse gases by increasing energy efficiency, conservation, and the use of renewable resources.

Action CON-7d: Continue to seek the cooperation of the BAAQMD to monitor emissions from identified point sources that impact the community. In addition, for sources not within the regulatory jurisdiction of the City, seek cooperation from the applicable regulatory authority to encourage the reduction of emissions and dust from the pollutant source.

Action CON-7e: Require dust control measures, including those included in the Santa Clara Valley Non-point Source Pollution Control Program, and BAAQMD's Best Management Practices for fugitive dust control during construction.

Action CON-7f: Use the BAAQMD "Air Quality Guidelines", as amended, or replaced, in identifying thresholds, evaluating the potential project and cumulative impacts, and determining appropriate mitigation measures.

Review development, infrastructure, and planning projects for consistency with BAAQMD requirements during the CEQA review process. Require project applicants to prepare air quality analyses to address BAAQMD, and General Plan requirements, which includes analysis and identification of:

- Air pollutant emissions associated with the project during construction, project operation, and cumulative conditions;
- Potential exposure of sensitive receptors to toxic air contaminants;
- Significant air quality impacts associated with the project for construction, project operation, and cumulative conditions; and
- Mitigation measures to reduce significant impacts to less than significant or the maximum extent feasible where impacts cannot be mitigated to less than significant.

City of San José

The City of San José General Plan contains the following goal and policies pertaining to air quality that are applicable to the Project (City of San José 2024):

Goal MS-10: Minimize air pollutant emissions from new and existing development.

Policy MS-10.1: Assess projected air emissions from new development in conformance with the 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-10.3: Promote the expansion and improvement of public transportation services and facilities, where appropriate, to both encourage energy conservation and reduce air pollution.

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-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.

Policy MS-10.10: Actively enforce the City's ozone-depleting compound ordinance and supporting policy to ban the use of chlorofluorocarbon compounds (CFCs) in packaging and in building construction and remodeling. The City may consider adopting other policies or ordinances to reinforce this effort to help reduce damage to the global atmospheric ozone layer.

Policy MS-10.12: Increase the City's alternative fuel vehicle fleet with the co-benefit of reducing local air emissions. Implement the City's Environmentally Preferable Procurement Policy (Council Policy 4-6) and Pollution Prevention Policy (Council Policy 4-5) in a manner that reduces air emissions from municipal operations. Support policies that reduce vehicle use by City employees.

Policy MS-10.14: Review and evaluate the effectiveness of site design measures, transit incentives, and new transportation technologies and encourage those that most successfully reduce air pollutant emissions.

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-11.7: Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.

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 CARB'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.

Policy MS-13.5: Prevent silt loading on roadways that generates particulate matter air pollution by prohibiting unpaved or unprotected access to public roadways from construction sites.

Policy MS-13.6: Revise the grading ordinance and condition grading permits to require that graded areas be stabilized from the completion of grading to commencement of construction.

City of Santa Clara

The City of Santa Clara General Plan contains the following goals and policies pertaining to air quality that are applicable to the Project (City of Santa Clara 2010):

Goal 5.10.2-G1: Improved air quality in Santa Clara and the region.

Goal 5.10.2-G2: Reduced greenhouse gas emissions that meet the State and regional goals and requirements to combat climate change.

Policy 5.10.2-P1: Support alternative transportation modes and efficient parking mechanisms to improve air quality.

Policy 5.10.2-P2: Encourage development patterns that reduce vehicle miles traveled and air pollution.

Policy 5.10.2-P3: Encourage implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants.

Policy 5.10.2-P4: Encourage measures to reduce greenhouse gas emissions to reach 30 percent below 1990 levels by 2020.

Policy 5.10.2-P5: Promote regional air pollution prevention plans for local industry and businesses.

Policy 5.10.2-P6: Require "Best Management Practices" for construction dust abatement.

3.3.3 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. These utilities would be responsible for implementing its measures only for that part of the Project which it would own or for which it would be responsible.

- LSPGC would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for the portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.3.3.1 LSPGC Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measures (APMs) to reduce the potential impacts of the Project on air quality. The impact analysis assumes that the following APMs would be implemented by LSPGC as part of their portion of work for the Project.

- **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**. LSPGC 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. 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.

3.3.3.2 PG&E Best Management Practices and Field Protocols

PG&E has committed to implementing the following best management practices (BMPs) to reduce potential impacts of the Project on air quality. The impact analysis assumes that the following BMPs would be implemented by PG&E as part of their portion of work for the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation).

- **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: Fugitive Dust – General**. Field crews must limit fugitive dust from PG&E project work at all times. Types 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-3: 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.

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-4: 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.

3.3.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to air quality within SVP's portion of the Project.

3.3.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, 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.

As described above in Section 3.3.2, *Regulatory Setting*, the SFBAAB experiences low concentrations of most pollutants when compared to federal and state standards and is designated as either attainment or unclassified with respect to most ambient air quality standards for criteria air pollutants, with the exception 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.

By definition, regional air pollution is largely a cumulative impact in that no single project is sufficient in size to, by itself, result in nonattainment of air quality standards. Instead, a project's individual emissions are considered to 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 2023a).

Table 3.3-4 presents BAAQMD-recommended significance thresholds for project-level analysis, followed by a discussion of each threshold. These thresholds are derived from requirements under BAAQMD regulations and the federal New Source Review program that apply to new stationary sources. These are considered levels at which new sources 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 SFBAAB.

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
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
Fugitive Dust	BAAQMD BMPs	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 1 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 1 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	

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

SOURCE: BAAQMD 2023a

Land use development projects generate emissions of reactive organic gases, 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 land use 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 to 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. Studies have shown that the application of BMPs at construction sites substantially controls fugitive dust (WRAP 2006), and individual measures have been shown to reduce fugitive dust by anywhere from 30 percent to 90 percent (BAAQMD 2023b). BAAQMD has identified a number of 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 2023a). This analysis assumes that LSPGC and PG&E would implement all BAAQMD basic BMPs as part of the Project and SVP would implement none of the BAAQMD BMPs, which is the basis for determining the significance of the air quality impact resulting from construction-phase fugitive dust emissions.

3.3.5 Direct and Indirect Effects

3.3.5.1 Approach to Analysis

On November 12, 2024, after LSPGC filed its initial application with CPUC, the California Independent System Operator (CAISO) Board of Governors approved a modified version of the Project (see Section 2.1, *Introduction*). The air pollutant emissions modeling for the revised Project was performed based on a 24-month construction scenario. However, the duration of construction was also extended by an additional 2 months, resulting in a 26-month construction period (see Section 2.9.4, *Construction Schedule*). This was not accounted for in the revised modeling. Based on Environmental Science Associates' review of these Project changes, there are no substantive Project component changes—or changes to Project construction activities—beyond those previously analyzed in the 24-month construction scenario. This assessment of Project changes represents a conservative approach to this analysis and does not result in a substantial change when considered with the 24-month modeling outcomes. In addition, on May 9, 2025, LSPGC provided updated emissions modeling for the NRS Substation modifications component of the Project to reflect a reduced construction period of 18 weeks for that component occurring over the longer term of construction for the Project as a whole. All inputs, estimates, and calculations are detailed in Appendix C, and are summarized below.

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, particulate matter emissions would be generated in the form of fugitive dust from ground-disturbing activities and vehicle travel on unpaved roads. Upon the completion of construction, periodic Project-related operation and maintenance (O&M) activities would generate criteria pollutant emissions. 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 Project's construction and O&M phases to applicable emissions thresholds established by BAAQMD (Table 3.3-4). Project emissions were

estimated using emission factors and methodology consistent with California Emissions Estimator Model Version 2022.1 (see Appendix C).

Assumptions about construction phasing and schedule, equipment, and vehicular activity that were used in the estimation 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. In addition, the estimates assumed the implementation of LSPGC APM AQ-1 (use of Tier 4 equipment for construction equipment) and LSPGC APM AQ-2 (dust control measures) for LSPGC's transmission line portion of the Project and implementation of PG&E BMP AQ-2 (fugitive dust – general) and PG&E BMP AQ-4 (Tier 4 construction equipment) for the Newark Substation modifications portion of the Project.

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 at the NRS Substation was identified as the only Project component that could pose potential health risks to existing sensitive receptors in its vicinity. As shown in Table 3.3-2, the nearest sensitive receptors—single-family residences along Gianera Street and Villa Place—are approximately 82 feet south of anticipated staging activities near the NRS Substation. Residences on Waxwing Drive are approximately 660 feet northwest of the anticipated construction activities that would occur at Staging Area 1.

A health risk assessment (HRA) was conducted to evaluate the potential health risks associated with temporary TAC emissions from construction activities at the NRS Substation. The NRS Substation improvements would be constructed within the jurisdiction of BAAQMD. 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 pose locally substantial health impacts to a greater degree than other types of air pollutants. 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 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 would typically be a conservative approach because DPM is a subset of exhaust PM_{10}, and the fraction of DPM emissions is expected to be lower; however, the PM_{10} emissions used in the HRA were modeled assuming Tier 4 final equipment emissions controls, which are not proposed for construction of the NRS Substation improvements (see Impact 3.3-3).

The HRA evaluated the estimated incremental increase in lifetime cancer risk from exposure to DPM emissions and the annual-average concentrations of $PM_{2.5}$ emitted during fuel combustion by construction-related hauling and vendor trucks, idling, and on-road fugitive sources (including tire wear, brake wear, and road dust). The HRA includes DPM and $PM_{2.5}$ emissions from vendor and hauling trucks but not from construction worker vehicle trips, which would be primarily gasoline-fueled and are therefore not a substantial source of DPM and $PM_{2.5}$ exhaust emissions.

Construction activity data for the Project provided by the Applicant in conjunction with default California Emissions Estimator Model inputs were used to prepare a construction HRA, using the American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee regulatory air dispersion model (AERMOD) and HRA guidelines from BAAQMD and OEHHA (USEPA 2024). Estimated emission rates (see description under Impact 3.3-2) were input 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 considers 1,000 feet around sources as the zone of influence for assessing health risk impacts (BAAQMD 2023a). Receptors 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; BAAQMD 2023c).

For assessing impacts on existing off-site receptors from construction TAC emissions, construction exposure is assumed to begin affecting a fetus at the start of the third trimester. Sensitive receptors analyzed include residents, daycare centers, and students. 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 that extend from the third trimester up to age 16. In addition, the exposure concentration is for only a typical workday (8 hours), which would significantly reduce health risks compared to residential uses. Based on review of the construction sites, off-site workers not affiliated with the Project are not expected 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 (including residential, school, and daycare receptors) or at the maximally exposed individual worker, the Project would have a significant impact. This analysis is presented in Impact 3.3-3.

The Project's O&M activities, as well as construction activities such as transmission line installation and improvements at other substations, would be much less emissions intensive or would not last for more than 2 months[1] at any one location, resulting in lower health risks. Therefore, the health risk analysis of Project O&M and construction of the other components was conducted qualitatively.

[1] Guidance from the Office of Environmental Health Hazard Assessment indicates that a health risk assessment is not required for construction activities lasting less than 2 months.

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 for Exhaust Emissions; Significant and Unavoidable for Dust Emissions*)

Construction

As the agency responsible for managing local air quality in the Project area, BAAQMD administers California and federal air pollution control programs and works to ensure attainment and maintenance of the ambient air quality standards. The air district has established an air quality plan to address nonattainment areas within its jurisdiction (see Section 3.3.2). The air quality plan has been prepared taking into account the latest planning assumptions regarding population, vehicle activity, and industrial activity. It addresses all existing and forecast ozone precursor–producing activities within BAAQMD jurisdictions to achieve attainment and maintenance of the ambient air quality standards.

The 2017 Clean Air Plan is the applicable air quality plan for the SFBAAB within which the Project area is located. The BAAQMD CEQA Guidelines recommend that a project's consistency with the current air quality plan be evaluated using the following three criteria:

1. The project supports the goals of the air quality plan.
2. The project includes applicable control measures from the air quality plan.
3. The project does not disrupt or hinder implementation of any control measures from the air quality plan.

If it can be concluded with substantial evidence that a project would be consistent with these three criteria, then BAAQMD considers it to be consistent with air quality plans prepared for the Bay Area.

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. The Project would generate emissions primarily during construction activities, and the emissions would mostly cease upon the completion of construction. Construction emissions represent a small fraction of the regional emission inventories included in the applicable air quality plans. Project construction would be conducted in compliance with all applicable BAAQMD rules and regulations, ensuring that activities would be consistent with the air district's efforts to achieve attainment and maintenance of the standards. However, as described under Impact 3.3-2, the Project's criteria air pollutant exhaust emissions during construction could exceed the BAAQMD significance thresholds. Such emissions would result in a cumulatively considerable net increase of nonattainment criteria pollutants and could conflict or obstruct implementation of the 2017 Clean Air Plan, which would result in a significant impact.

Mitigation Measure 3.3-2a: Construction Fleet Minimum Requirements and Tracking – Tier 4 Final Emissions Controls, is recommended to ensure that exhaust emissions would not exceed the significance thresholds, and construction of the Project would not result in a cumulatively considerable net increase of any nonattainment criteria pollutant under an applicable federal or state ambient air quality standard. Therefore, with implementation of Mitigation Measure 3.3-2a, the Project's exhaust emissions would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be reduced to **less than significant**.

Mitigation Measure 3.3-2b: Use Best Management Practices for Construction-Related Fugitive Dust Emissions is recommended to ensure that fugitive dust emissions remain below a level of significance by incorporating enhanced fugitive dust measures. In addition, the Project would be constructed in compliance with applicable BAAQMD rules and regulations. However, the SVP NRS 230 kV Substation modification portion of the Project to be implemented by SVP is not under the jurisdiction of the CPUC and the CPUC cannot impose or enforce mitigation requirements on SVP for this Project. Therefore, the dust emissions impact associated with construction of the SVP NRS 230 kV Substation modifications component of the Project would conflict with or obstruct implementation of the applicable air quality plan and result in a **significant and unavoidable impact**.

Operations and Maintenance

Upon the completion of construction, the Project would generate minimal emissions during O&M activities. The Project's O&M activities would be similar to those currently performed by LSPGC, PG&E, and SVP for their existing facilities, such as inspections, repairs, and maintenance. Maintenance of the access roads would include vegetation trimming, road surface renewal, ditch cleaning, and water management practices, all on an as-needed basis. These activities would require the use of vehicles and equipment, which would generate emissions. However, this increase in O&M emissions associated with the Project would be nominal and well below the applicable BAAQMD significance thresholds. These activities would not result in notable population or employment growth and therefore would represent a minor incremental increase in regional emissions. These emissions would not affect BAAQMD's efforts to achieve attainment and maintenance of the standards. Therefore, the O&M impact of the Project would be **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.3-2a and Mitigation Measure 3.3-2b (see text under Impact 3.3-2).
>
> **Significance after Mitigation:** Implementation of Mitigation Measures 3.3-2a and 3.3-2b would ensure that the impact associated with a conflict or obstruction of implementation of the applicable air quality plan would be reduced to less than significant. However, the impact relative to dust emissions would remain significant and unavoidable as the CPUC has no mitigation enforcement jurisdiction over the work that would occur within the SVP NRS 230 kV Substation.

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 any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard. (*Less than Significant with Mitigation for Exhaust Emissions; Significant and Unavoidable for Dust Emissions*)

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. An adequate cumulative impact analysis considers a project over time and in conjunction with other past, present, and reasonably foreseeable future projects whose impacts might compound those of the project being assessed.

By its very nature, air pollution is largely a cumulative impact. No single project would likely be sufficient in size, by itself, to result in nonattainment of the regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development within the SFBAAB. The nonattainment status of the SFBAAB with respect to regional pollutants is a result of past and present development. Future attainment of the federal and state ambient air quality standards is a function of successful implementation of BAAQMD attainment plans. Consequently, BAAQMD's thresholds of significance for criteria pollutants are relevant to determine whether a project's individual emissions would have a cumulatively significant impact on air quality.

Construction

The Project's construction activities would require the use of off-road construction equipment, on-road vehicles, and helicopters, which would generate criteria air pollutants that could contribute to violations of the ambient air quality standards for ozone and PM_{10}.

Table 3.3-5 summarizes the anticipated exhaust emissions that would occur in all three construction areas combined and compares them to the applicable significance thresholds. The emissions estimates were modeled to incorporate Tier 4 final emissions controls for equipment associated with construction of the transmission line, which substantially reduces emissions of NOx. However, as described in LSPGC APM AQ-1, LSPGC has only committed to the use of Tier 4 interim or Tier 4 final emissions controls, so the use of Tier 4 interim emissions controls would be an option for the transmission line portion of the Project. Per PG&E BMP AQ-4, the use of Tier 4 interim emissions controls is assumed for the PG&E Newark 230 kV Substation modifications portion of the Project emissions estimates and no equipment emissions controls are assumed for the SVP NRS 230 kV Substation modifications portion of the Project emissions estimates.

The estimates of all construction-related criteria air pollutant emissions shown in Table 3.3-5 are below the respective significance thresholds. However, as described above, the transmission line emissions assume use of Tier 4 final equipment, which results in considerably greater NOx emissions reductions compared to the use of Tier 4 interim equipment as proposed. Since LSPGC has not committed to implementing Tier 4 final emissions controls, the emissions presented in

Table 3.3-5 are underestimated for the Project as proposed and do not substantiate that Project emissions would be below the significance thresholds or that they would not be cumulatively considerable. Therefore, it is assumed that Project emissions would result in a cumulatively considerable net increase of nonattainment criteria pollutants, which would have a significant impact.

TABLE 3.3-5
MITIGATED COMBINED CONSTRUCTION EXHAUST EMISSIONS SUMMARY (POUNDS PER DAY)

	ROG	NOx	PM_{10}	$PM_{2.5}$
PG&E Newark 230 kV Substation Construction (assumes implementation of PG&E BMP AQ-4; Tier 4 Interim equipment controls)	0.70	8.86	0.19	0.19
SVP NRS 230 kV Substation Construction (assumes no equipment controls)	1.16	7.65	0.34	0.27
Transmission Line Construction (assumes implementation of Mitigation Measure 3.3-2a; Tier 4 final equipment controls)	2.74	34.71	0.87	0.79
Combined Total Emissions	4.60	51.22	1.40	1.25
Significance Threshold	54	54	82	54
Significant?	No	No	No	No

NOTES:
NO_X = oxides of nitrogen; NRS = Northern Receiving Station; 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

SOURCE: Table compiled by Environmental Science Associates in 2025 (Appendix C).

Mitigation Measure 3.3-2a is recommended to replace LSPGC APM AQ-1 in order to ensure that the use of Tier 4 final emissions controls would be required for construction of the proposed transmission line.[2] The construction exhaust emissions shown in Table 3.3-5 represent emissions with implementation of Mitigation Measure 3.3-2a. 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.

The BAAQMD recommends a qualitative approach for addressing criteria pollutant emissions of fugitive dust from construction activities and 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 2023c). The BAAQMD categorizes its BMPs into two types: basic and enhanced.

Pursuant to PG&E BMP AQ-2, PG&E has committed to implementing dust control measures consistent with BAAQMD's basic BMPs, which is appropriate given the limited scope of PG&E's portion of the Project. Therefore, the dust emissions impact associated with the PG&E Newark 230 kV Substation modification would be **less than significant**. However, while LSPGC

[2] Tier 4 "interim" emission controls would not reduce transmission line construction ROG and NO_X emissions to the extent modeled and shown in Table 3.3-5.

proposes the basic BMPs through LSPGC APM AQ-2, the enhanced BMPs are not proposed. Given the relatively large scope of ground disturbance that would occur associated with construction of the transmission line portion of the Project, implementation of only the basic BMPs could result in a significant impact. Mitigation Measure 3.3-2b is recommended to replace LSPGC APM AQ-2 in order to ensure that fugitive dust emissions associated with construction of the transmission line would be controlled with basic and enhanced measures. With the implementation of Mitigation Measure 3.3-2b, fugitive dust-related criteria pollutant impacts during construction of the proposed transmission line would be reduced to **less than significant**.

SVP has not committed to implementing any dust control measures associated with its NRS 230 kV Substation modification component of the Project; therefore, it would result in a significant dust emissions impact. Implementation of Mitigation Measure 3.3-2b is recommended to reduce this impact to a less-than-significant level; however, this portion of the Project to be implemented by SVP is not under the jurisdiction of the CPUC and the CPUC cannot impose or enforce mitigation requirements on SVP for this Project. Therefore, the dust emissions impact associated with construction of the SVP NRS 230 kV Substation modifications component of the Project would be **significant and unavoidable**.

Operations and Maintenance

The Project's O&M activities would be similar to those currently performed by LSPGC, PG&E, and SVP for their existing facilities. The Project would involve a nominal increase in O&M activities. Therefore, Project O&M 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 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*. 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, which were established to represent health protective levels that include an adequate margin of safety. However, with implementation of Mitigation Measure 3.3-2a, Project emissions would not exceed the significance thresholds. Therefore, Project construction and O&M activities are not anticipated to result in an adverse health effect with respect to exhaust emissions of criteria air pollutants.

With respect to adverse health effects associated with fugitive dust particulate matter emissions, refer to the $PM_{2.5}$ concentrations analysis discussion in Impact 3.3-3, which considers the exposure of residences to $PM_{2.5}$ dust and exhaust emissions in the vicinity of the construction of the SVP NRS 230 kV Substation modifications component of the Project.

Mitigation: Implement Mitigation Measure 3.3-2a and Mitigation Measure 3.3-2b.

Mitigation Measure 3.3-2a: Construction Fleet Minimum Requirements and Tracking – 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. 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 the equipment's 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 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 on a monthly basis for the duration of construction to track the Project's compliance. The updated tracking tool shall be submitted to the CPUC no later than the tenth day of each month.

Mitigation Measure 3.3-2b: Use Best Management Practices for Construction-Related Fugitive Dust Emissions. LSPGC shall implement all the following best management practices, which would reduce fugitive PM_{10} and $PM_{2.5}$:

- 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 further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the CPUC regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District'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, unless specified otherwise by the restoration plan, 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 soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

Significance after Mitigation: Implementation of Mitigation Measures 3.3-2a and 3.3-2b would ensure that the impact associated with a net increase of exhaust emissions (i.e., a criteria air pollutant for which the region is in nonattainment status) would be less than significant. Even with implementation of these mitigation measures, the impact associated with dust emissions would remain significant and unavoidable as the CPUC has no mitigation enforcement jurisdiction over the work that would occur within the SVP NRS 230 kV Substation.

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. (*Significant and Unavoidable*)

Construction

The Project's potential to expose sensitive receptors to substantial pollutant concentrations of TACs is associated mainly with construction activities, which would involve the generation of DPM from diesel combustion in construction equipment and heavy-duty trucks and soil disturbance that would generate fugitive dust. Based on the locations of sensitive receptors relative to the different Project components and the intensity and duration of construction activities for these components, construction at the Project's SVP NRS 230 kV Substation was identified as the only Project component that could pose health risks to existing sensitive

receptors in its vicinity. The nearest sensitive receptors—single- and multi-family residences—are approximately 82 feet south of the Project's construction area.

Maximum mitigated health risks from Project construction activities at the SVP NRS 230 kV Substation modifications are presented in **Table 3.3-6**. The maximally exposed individual receptor, approximately 82 feet south of the SVP NRS 230 kV Substation, is the modeled receptor that would experience the highest incremental excess cancer risk over the total exposure duration, estimated to be 13 months. The model outputs and health risk analysis supporting this determination are presented as part of Appendix C.

TABLE 3.3-6
MITIGATED MAXIMUM HEALTH RISKS ASSOCIATED WITH CONSTRUCTION ACTIVITIES AT THE SVP NRS SUBSTATION

	Excess Cancer Risk (# per million)	$PM_{2.5}$ Concentration ($\mu g/m^3$)	Chronic Hazard Index (unitless)
Maximally Exposed Individual Receptor	5.17	0.02	0.004
BAAQMD Significance Threshold	10	0.3	1
Threshold Exceeded?	No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; BAAQMD = Bay Area Air Quality Management District; NRS = Northern Receiving Station; $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns; SVP = Silicon Valley Power

SOURCE: Data compiled by Environmental Science Associates in 2025 (see Appendix C).

As shown in Table 3.3-6, the mitigated cancer risk, $PM_{2.5}$ concentration risk, and chronic hazard index at the maximally exposed individual receptor would be below BAAQMD health risk thresholds. However, the emissions estimates used as the basis for the health risk assessment were modeled to incorporate Tier 4 final emissions controls and SVP has not committed to implementation of such controls. Therefore, the health risks presented in Table 3.3-6 are underestimated for the Project as proposed and do not substantiate that Project emissions would result in health risks that are below the significance thresholds. Consequently, health risks associated with the SVP NRS 230 kV Substation modification component of the Project are assumed to be significant. Implementation of Mitigation Measures 3.3-2a and 3.3-2b are recommended; however, the CPUC does not have jurisdiction to impose mitigation requirements on SVP; therefore, the health risk impact associated with construction of the SVP NRS 230 kV Substation modification would be **significant and unavoidable**.

Other Project Construction Components

Construction activities related to other Project components, including work for existing PG&E Newark 230 kV Substation modifications and new transmission lines, are expected to generate fewer emissions of TACs at any single sensitive receptor location and would be located farther from sensitive receptors than the SVP NRS 230 kV Substation. Construction activities associated with the new transmission lines would be linear, progressing along the alignment, and would not expose any one receptor to emissions for more than a few weeks. Therefore, health risk impacts associated with construction at the other Project components would be **less than significant**.

Operations and Maintenance

Emissions resulting from operations would be associated mainly with gasoline-powered passenger cars with much lower associated health risks than those from DPM. Therefore, health risks from gasoline-powered employee trips are not quantified. The Project would continue regular O&M activities at the PG&E Newark 230 kV and SVP NRS 230kV substations, respectively. Given the minimal emissions that would be associated with O&M activities at each location, the Project's O&M-related health risk impacts would be **less than significant**.

Mitigation: Implement Mitigation Measures 3.3-2a and 3.3-2b (see Impact 3.3-2, above).

Significance after Mitigation: Implementation of Mitigation Measures 3.3-2a and 3.3-2b would ensure that the impact associated with health risk due to DPM and fugitive dust emissions would be less than significant. The impact would remain significant and unavoidable for the SVP NRS 230 kV Substation modifications component of the Project as the CPUC has no mitigation enforcement jurisdiction over the work that would occur within the substation.

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 not 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. 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, and this impact would be **less than significant**.

Operations and Maintenance

As described previously, the Project's O&M activities would be similar to those currently performed by LSPGC PG&E, and SVP for their existing facilities. The Project would result in a nominal increase in O&M activities, such as increased maintenance, repairs, and inspection trips. Potential emission sources associated with O&M activities would be limited, with the most likely source being diesel engine emissions and accompanying odors. These emissions would be short-term, limited to the location of the O&M activity, and intermittent; would disperse quickly; and would cease upon the completion of the O&M activity at a given location.

Emissions would be temporary and would disperse rapidly with distance from the source. Therefore, O&M-generated emissions and odors would not result in the frequent or long-term exposure of a substantial number of people to objectionable odorous emissions, and 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 SFBAAB, which is governed by the BAAQMD. The SFBAAB is currently classified as nonattainment for the federal 8-hour ozone standard and the federal 24-hour PM2.5 standard and is nonattainment for state 1-hour and 8-hour ozone, 24-hour PM10, and annual-average PM10 and PM2.5 standards. Therefore, there is an existing adverse cumulative impact in the SFBAAB relative to these pollutants. 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. The temporal scope considered for potential cumulative impacts to air quality are the same general construction and operational timeframes of the Project.

3.3.6.1 Criterion a)

Impact C.3.3-1: The Project impact of conflicting with or obstructing implementation of the applicable air quality plans would be cumulatively considerable. (*Less than Significant with Mitigation for Exhaust Emissions; Significant and Unavoidable for Dust Emissions)*

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 generate emissions of 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 conflicting with or obstructing

implementation of the applicable air quality plans could also be considerable and significant. With implementation of Mitigation Measure 3.3-2a, 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 Mitigation Measure 3.3-2b, 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; however, the SVP NRS 230 kV Substation modification portion of the Project to be implemented by SVP is not under the jurisdiction of the CPUC and the CPUC cannot impose or enforce mitigation requirements on SVP for this Project. Therefore, the Project's contribution to the cumulative impact of conflicting with or obstructing implementation of the applicable air quality plans, in combination with the impacts of cumulative projects, would be mitigated to a **less-than-significant** level related to exhaust emissions and would be significant and unavoidable related to fugitive dust emissions.

> **Mitigation:** Implement Mitigation Measure 3.3-2a and Mitigation Measure 3.3-2b (see Impact 3.3-2, above).
>
> **Significance after Mitigation:** Implementation of Mitigation Measures 3.3-2a and 3.3-2b would ensure that the cumulative impact associated with a conflict or obstruction of implementation of the applicable air quality plan would be reduced to less than significant. However, the cumulative impact relative to dust emissions would remain significant and unavoidable as the CPUC has no mitigation enforcement jurisdiction over the work that would occur within the SVP NRS 230 kV Substation.

3.3.6.2 Criterion b)

Impact C.3.3-2: The Project impact of generating a net increase of 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 for Exhaust Emissions; Significant and Unavoidable for Dust Emissions*)

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 impact of generating a net increase of 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.

> **Mitigation:** Implement Mitigation Measures 3.3-2a and 3.3-2b (see Impact 3.3-2, above).
>
> **Significance after Mitigation:** Implementation of Mitigation Measures 3.3-2a and 3.3-2b would ensure that the cumulative impact associated with a conflict or obstruction of implementation of the applicable air quality plan would be reduced to less than significant. However, the cumulative impact relative to dust emissions would remain significant and unavoidable as the CPUC has no mitigation enforcement jurisdiction over the work that would occur within the SVP NRS 230 kV Substation.

3.3.6.3 Criterion c)

Impact C.3.3-3: The Project impact of exposing sensitive receptors to pollutant concentrations would be cumulatively considerable. (*Significant and Unavoidable*)

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. 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. The temporal scope considered for potential cumulative impacts to air quality are the same general construction and operational timeframes of the Project. 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.

In Section 3.3.5.1, *Health Risk Assessment*, the SVP NRS 230 kV Substation is the only Project component that could pose potential health risks to existing sensitive receptors in its vicinity. As shown in Table 3.0-1, there are three cumulative projects in the immediate vicinity of the SVP NRS 230 kV Substation that may be constructed simultaneously with the Project: the 2303 Gianera Street – Planned Development project, the Esperanca Substation Project, and the Northern Receiving Station-Kifer Receiving Station 115 kV Transmission Line Project (see Figure 3.0-1C). These projects, could involve construction at the same time as the SVP NRS 230 kV Substation modifications. For a conservative analysis, it is assumed that the health risks associated with the Project and the three cumulative projects would impact the same maximally exposed individual receptor.

A review of the Project area indicates there are also existing sources of TACs within approximately 1,000 feet of the Project site, including: one local roadway (Lafayette Street), one local railway (Union Pacific Railroad), and three stationary sources (the City of Santa Clara Gianera Generating Station, which utilizes fossil fuels to generate electric power; the City of Santa Clara Gianera Storm Water Pump Station, which has a generator on-site; and RS Alameda LLC, which has a generator on-site).

The mitigated maximum combined cumulative health risks associated with the Project and existing identified cumulative sources are presented in **Table 3.3-7**. As shown, mitigated cumulative health risk impacts from the identified sources to the Project maximally exposed individual receptor indicate that the Project would not exceed the BAAQMD cumulative thresholds for cancer risk or the hazard index, but would exceed the annual $PM_{2.5}$ concentration threshold as a result of the city of Santa Clara permitted stationary source. Further, the emissions estimates used as the basis for the health risk assessment for the Project were modeled to incorporate Tier 4 final emissions controls and SVP has not committed to implementation of such controls. Therefore, the cumulative health risks presented in Table 3.3-7 are underestimated for the Project as proposed and do not substantiate that Project emissions would contribute to cumulative health risks that are below the significance

thresholds. Consequently, the SVP NRS 230 kV Substation modification's contribution to the cumulative health risk impact is assumed to be considerable and significant. Implementation of Mitigation Measures 3.3-2a and 3.3-2b are recommended; however, the CPUC does not have jurisdiction to impose mitigation requirements on SVP; therefore, the cumulative health risk impact associated with construction of the SVP NRS 230 kV Substation modification would be **significant and unavoidable**.

TABLE 3.3-7
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)
Project	5.17	0.02	<0.01
Residential Development at 2303 Gianera Street[a]	4.82	0.28	0.01
On-Road: Local Roadway – Lafayette Street[b]	16.00	<0.01	<0.01
Permitted Stationary: RS Alameda LLC ("Red Sea")[b]	4.58	0.01	<0.01
Permitted Stationary: City of Santa Clara Gianera Storm Water Pump Station[b]	4.15	0.01	<0.01
Permitted Stationary: City of Santa Clara[b]	7.76	6.84	0.06
Railway: Union Pacific Rail[b]	15.00	<0.01	<0.01
Cumulative Total	**57.48**	**7.16**	**0.07**
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; $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns

a. An initial study of 2303 Gianera was distributed on October 2024, and presented a health risk analysis of the project's construction activities.
b. Values are from BAAQMD's Mobile and Stationary Source Screening Map tool.

SOURCES: Data compiled by Environmental Science Associates in 2025 (Appendix C); City of Santa Clara 2024; BAAQMD 2025.

Other Project Construction Components

Construction activities related to other Project components, including work for existing PG&E Newark 230 kV Substation modifications and new transmission line, are expected to generate emissions of TACs at any single sensitive receptor location that would not be cumulatively considerable due to distance from the source and/or short expose periods. Therefore, the cumulative health risk impacts associated with construction at the other Project components would be **less than significant**.

Operations and Maintenance

Project emissions resulting from operations would be associated mainly with gasoline-powered passenger cars with much lower associated health risks than those from DPM. Therefore, health risks from gasoline-powered employee trips are not quantified. The Project would continue regular O&M activities at the PG&E Newark 230 kV and SVP NRS 230kV substations, respectively. Given the minimal emissions that would be associated with O&M activities at each

location, the Project's O&M-related health risk would not be considerable and the cumulative impact would be **less than significant**.

Mitigation: Implement Mitigation Measures 3.3-2a and 3.3-2b (see Impact 3.3-2, above).

Significance after Mitigation: Implementation of Mitigation Measures 3.3-2a and 3.3-2b would ensure that the Project impact associated with health risk due to DPM and fugitive dust emissions would not be cumulatively considerable, and the cumulative impact would be less than significant. The cumulative impact would remain significant and unavoidable for the SVP NRS 230 kV Substation modifications component of the Project as the CPUC has no mitigation enforcement jurisdiction over the work that would occur within the substation.

3.3.6.4 Criterion d)

Impact C.3.3-4: The Project impact of 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 as sources of odor. Odor impacts of the Project would be 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

BAAQMD (Bay Area Air Quality Management District). 2017a. Air Quality Standards and Attainment Status. Available: https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status. Last updated January 5, 2017. Accessed January 13, 2025.

BAAQMD (Bay Area Air Quality Management District). 2017b. *Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area—2017 Final Clean Air Plan.* Adopted April 19, 2017. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed November 2024.

BAAQMD (Bay Area Air Quality Management District). 2023a. *2022 California Environmental Quality Act Air Quality Guidelines.* April 2023. Chapter 3, "Thresholds of Significance." Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds_final_v2-pdf.pdf?rev=a976830cce0c4a6bb624b020f72d25b3&sc_lang=en. Accessed November 2024.

BAAQMD (Bay Area Air Quality Management District). 2023b. *California Environmental Quality Act Air Quality Guidelines Appendix A: Thresholds of Significance Justification.* April 20, 2023. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-a-thresholds-of-significance-justification_final-pdf.pdf?rev=d35960ec035546629124ae2a25fb1df9&sc_lang=en. Accessed November 2024.

BAAQMD (Bay Area Air Quality Management District). 2023c. *California Environmental Quality Act Air Quality Guidelines Appendix E: Recommended Methods For Screening and Modeling Local Risks and Hazards.* April 2023. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed January 2025.

BAAQMD (Bay Area Air Quality Management District). 2025. *Health Risk Screening and Modeling*. Available: https://www.baaqmd.gov/en/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools/health-risk-screening-and-modeling. Accessed March 2025.

https://www.baaqmd.gov/en/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools/health-risk-screening-and-modeling

CARB (California Air Resources Board). 2010. *Estimate of Premature Deaths Associated with Fine Particle Pollution (PM2.5) in California Using a U.S. Environmental Protection Agency Methodology.* August 31, 2010. Available: https://archive.epa.gov/region9/mediacenter/web/pdf/pm-report_2010.pdf. Accessed November 2024.

CARB (California Air Resources Board). 2024a. CARB Identified Toxic Air Contaminants. Available: https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants. Accessed November 2024.

CARB (California Air Resources Board). 2024b. Top 4 Summary Site – San José–Jackson Street Station. Available: https://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed November 2024.

CARB (California Air Resources Board). 2024c. California Ambient Air Quality Standards. Available: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed November 2024.

CARB (California Air Resources Board). 2024d. Non-road Diesel Engine Certification Tier Chart. Available: https://ww2.arb.ca.gov/resources/documents/non-road-diesel-engine-certification-tier-chart. Accessed July 2024.

CARB (California Air Resources Board). 2024e. In-Use Off-Road Diesel-Fueled Fleets Regulation. Available: https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation/about. Accessed July 2024.

City of Fremont. 2011. *City of Fremont General Plan*. Adopted December 2011. Chapter 7, "Conservation." Available: https://www.fremont.gov/home/showpublisheddocument/791/637750630830170000. Accessed November 2024.

City of Milpitas. 2021. *City of Milpitas General Plan 2040*. Adopted March 9, 2021. Available: https://www.milpitas.gov/DocumentCenter/View/1147/Milpitas-2040-General-Plan-PDF?bidId=. Accessed November 2024.

City of San José. 2024. *Envision San José 2040 General Plan*. Adopted November 1, 2011; as amended on October 24, 2024. Available: https://www.sanjoseca.gov/home/showpublisheddocument/22359/637928744399330000. Accessed November 2024.

City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. November 16, 2010. Chapter 5, "Goals and Policies." Available: https://www.santaclaraca.gov/home/showpublisheddocument/13934/635729106120730000. Accessed November 2024.

City of Santa Clara. 2024. 2303 Gianera – Planned Development (CEQA). Available at: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/539/364. Accessed March 2025.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

LSPGC (LS Power Grid California, LLC). 2025. *Proponent's Environmental Assessment for LS Power Grid California, LLC's Power the South Bay Project.* May 2024. Amended February 2025. Available: https://ia.cpuc.ca.gov/environment/info/esa/psb/pdfs/Filed_PEA.pdf. Accessed November 4, 2024.

OEHHA (Office of Environmental Health Hazard Assessment). 1998. *For the "Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant," Part B: Health Risk Assessment for Diesel Exhaust*. Air Toxicology and Epidemiology Section. California Environmental Protection Agency. May 1998. Available: https://www.arb.ca.gov/toxics/dieseltac/part_b.pdf. Accessed January 2025.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments.* Air, Community, and Environmental Research Branch. California Environmental Protection Agency. February 2015. Available: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed January 2025.

USEPA (U.S. Environmental Protection Agency). 2024. *AERMOD Implementation Guide*. EPA-454/B-24-009. November 2024. Available: https://gaftp.epa.gov/Air/aqmg/SCRAM/models/preferred/aermod/aermod_implementation_guide.pdf. Accessed January 2025.

WRAP (Western Regional Air Partnership). 2006. *WRAP Fugitive Dust Handbook.* Prepared for Western Governors' Association, Denver, CO. Prepared by Countess Environmental, Westlake Village, CA. September 7, 2006. Available: https://www.env.nm.gov/wp-content/uploads/sites/2/2017/02/WRAP_FDHandbook_Rev_06.pdf. Accessed November 2024.

3.4 Biological Resources

This section evaluates the potential for construction and operation and maintenance (O&M) of the Project to result in impacts on biological resources in the study area. For purposes of the evaluation of potential biological resources impacts, the *study area* 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.

The CPUC received scoping comments from the California Department of Fish and Wildlife (CDFW) and Santa Clara Valley Water District (Valley Water) pertaining to biological resources. CDFW noted that several special-status species have been documented in the Project area according to the California Natural Diversity Database (CNDDB), Biogeographic Information and Observation System records, or published research documents. For example, according to Biogeographic Information and Observation System records, the Project area contains positive detections of several special-status species and has the potential to support numerous special-status species and their habitats.

Valley Water suggested in its comment letter that the EIR should evaluate the Project's potential impacts on the salt marsh harvest mouse (*Reithrodontomys raviventris*), Ridgway's rail (*Rallus obsoletus obsoletus)*, and any other special-status species that may be present in the Project area. Valley Water also stated that the EIR should evaluate potential impacts on tidal marsh, wetlands, and riparian habitat. Copies of all scoping letters are provided in **Appendix B**, *Scoping Report*.

3.4.1 Environmental Setting

This section describes the regional setting, vegetation communities, habitat potential for special-status plant and wildlife species, sensitive natural communities, and wildlife corridors in the Project area. The information presented here is based in part on the biological resources section of the Proponent's Environmental Assessment and accompanying Biological Resources Technical Report (LSPGC 2025), which documents existing conditions, the potential for special-status species occurrence, and the findings of biological surveys within the study area *(*i.e., the Project footprint and a 1,000-foot buffer). On behalf of the CPUC, Environmental Science Associates performed a reconnaissance-level biological survey of the Project site on February 28, 2024, to verify site conditions.

3.4.1.1 Regional Setting

The Project area is located in the cities of Fremont, Milpitas, San José, and Santa Clara, within Alameda and Santa Clara counties. The Project is in the Central Coast subregion in central–western California and is in the southern San Francisco Bay and northern Coyote Creek watersheds. Topography in the Project area is relatively flat, ranging from sea level to 40 feet above mean sea level. Water flows generally from the east and south to the west and north.

Vegetation Communities

The Project would include approximately 12 miles of an overhead and underground alternating current (AC) transmission line to connect the existing PG&E Newark 230 kilovolt (kV) Substation to the SVP Northern Receiving Station (NRS) 230 kV Substation. Native and non-native vegetation communities within the study area include areas that have been disturbed by the construction and maintenance of existing electrical infrastructure. These communities are situated within a network of roads, commercial 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's Manual of California Vegetation Online (CNPS 2024), California Sensitive Natural Communities maps (CDFW 2024b), and National Wetlands Inventory maps (USFWS 2024a). 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 CNDDB.

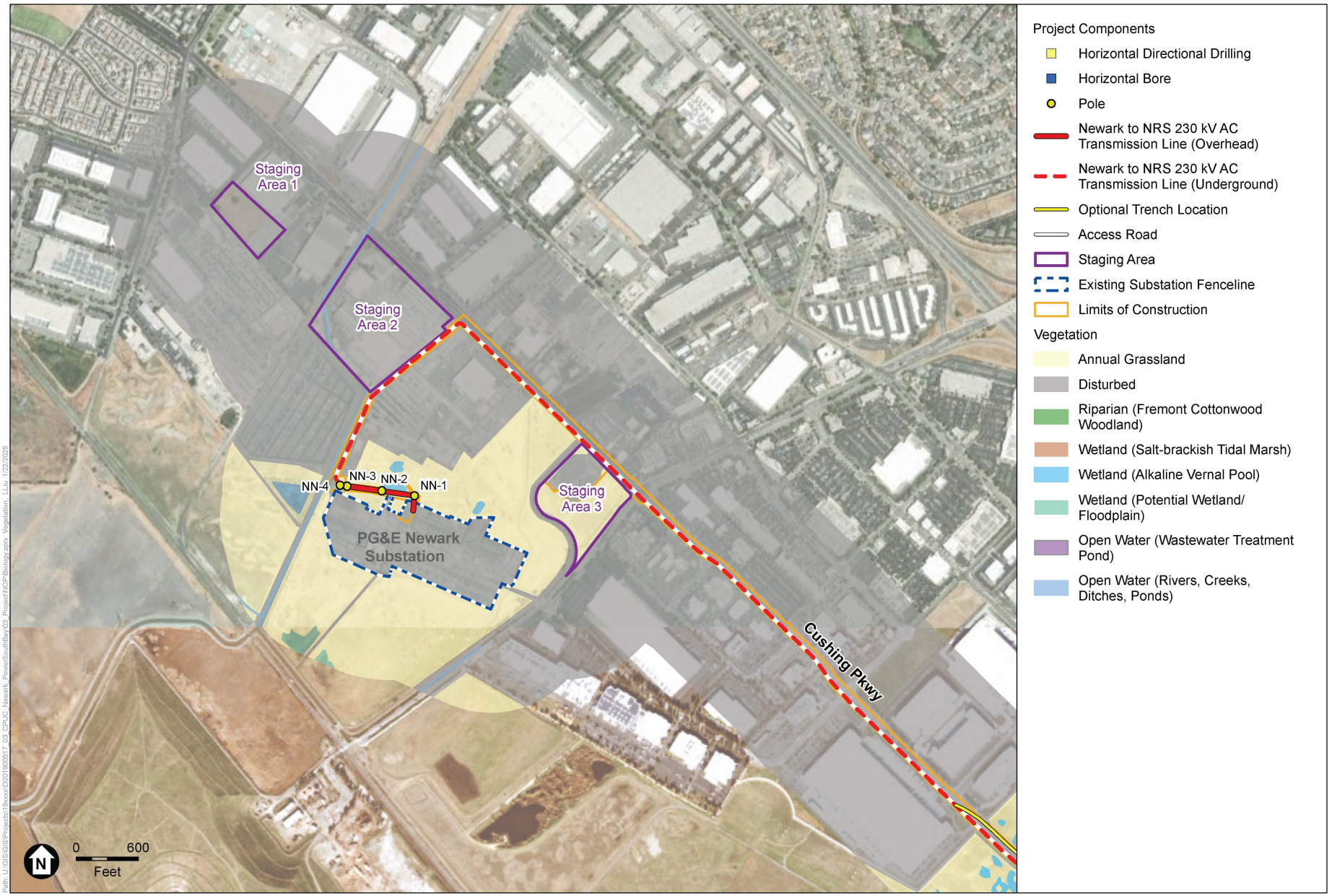
The Project site and vicinity are dominated by disturbed areas. Although there are some areas of native vegetated habitat, most Project components would be located within disturbed habitats (**Figures 3.4-1A** through **3.4-1G**, *Vegetation Communities in the Vicinity of the Project Area*).

Table 3.4-1, *Vegetation Communities and Land Cover Types at the Construction Limits of the Project's Transmission Lines, Substations, and Staging Areas*, summarizes the approximate acreage of each community and land cover type mapped within 1,000 feet of the Project transmission lines, PG&E Newark 230 kV Substation, SVP NRS 230 kV Substation, and staging areas. Brief descriptions of each land cover type are provided below.

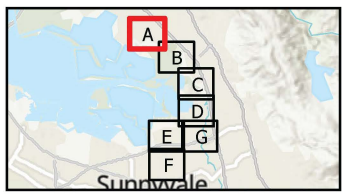
TABLE 3.4-1
VEGETATION COMMUNITIES AND LAND COVER TYPES AT THE CONSTRUCTION LIMITS OF THE PROJECT'S TRANSMISSION LINES, SUBSTATIONS, AND STAGING AREAS

Vegetation Community of Land Cover Type Name	Approximate Acreage	Approximate Percent of Total Acreage
Open Water (includes wastewater treatment pond, rivers, creeks, ditches, and tributaries)	340.68	8%
Annual Grassland	577.00	15%
Wetland (includes alkaline vernal pool, salt-brackish tidal marsh, and potential wetland/floodplain)	372.08	10%
Riparian (includes Fremont cottonwood woodland)	36.16	1%
Disturbed	2,573.04	66%
Total	**3,898.96**	**100%**

SOURCE: Data compiled by Environmental Science Associates in 2025.



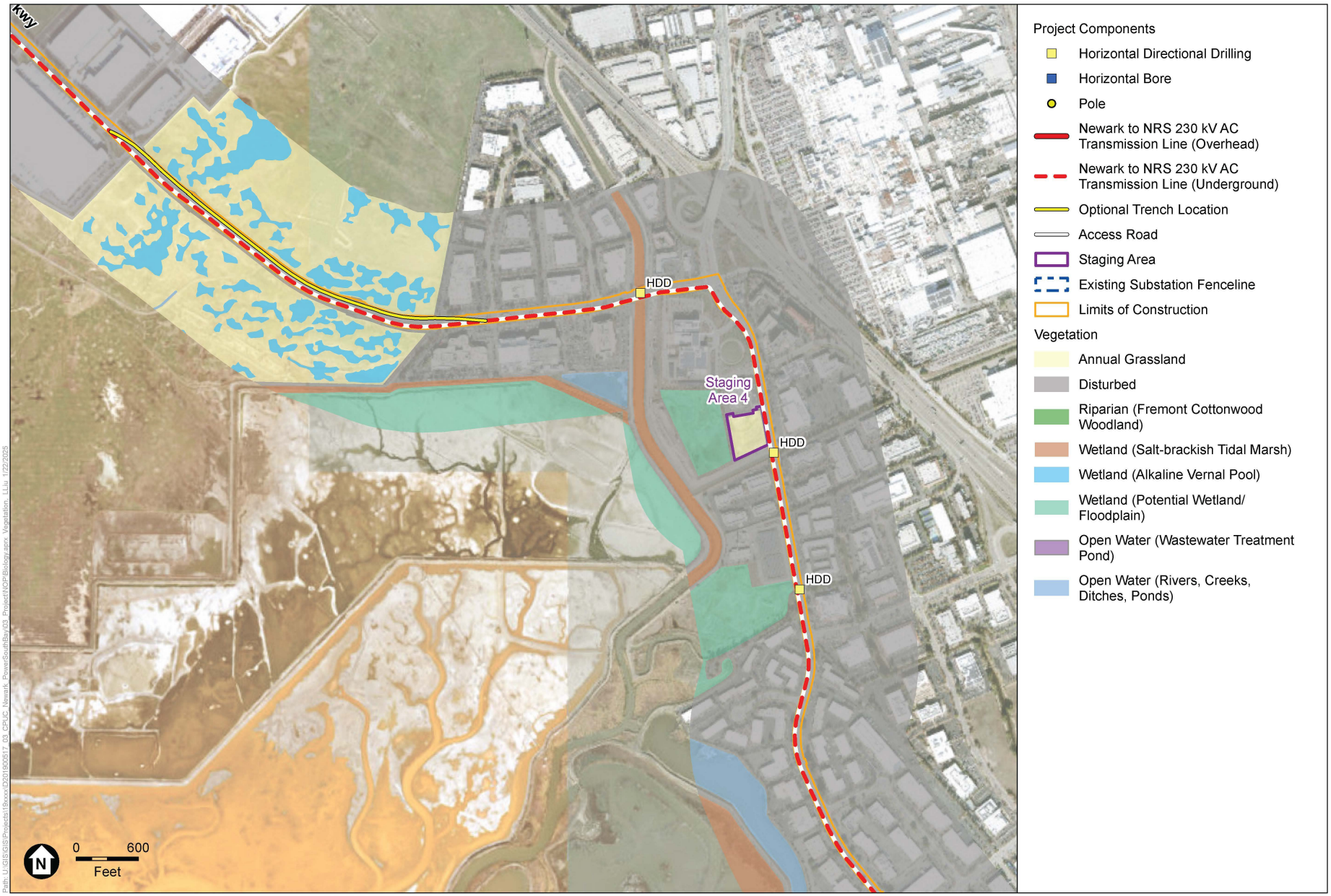
SOURCE: LSPGC 2024; ESA 2024; CDFW 2024; USFWS 2024



Power the South Bay Project

Figure 3.4-1A
Vegetation Communities in the Vicinity of the Project Area

ESA



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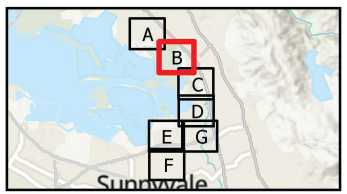

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Figure 3.4-1B
Vegetation Communities in the Vicinity of the Project Area

ESA

SOURCE: LSPGC 2024; ESA 2024; CDFW 2024; USFWS 2024

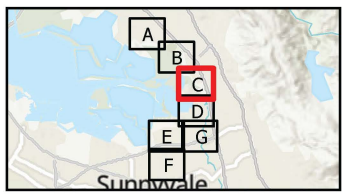

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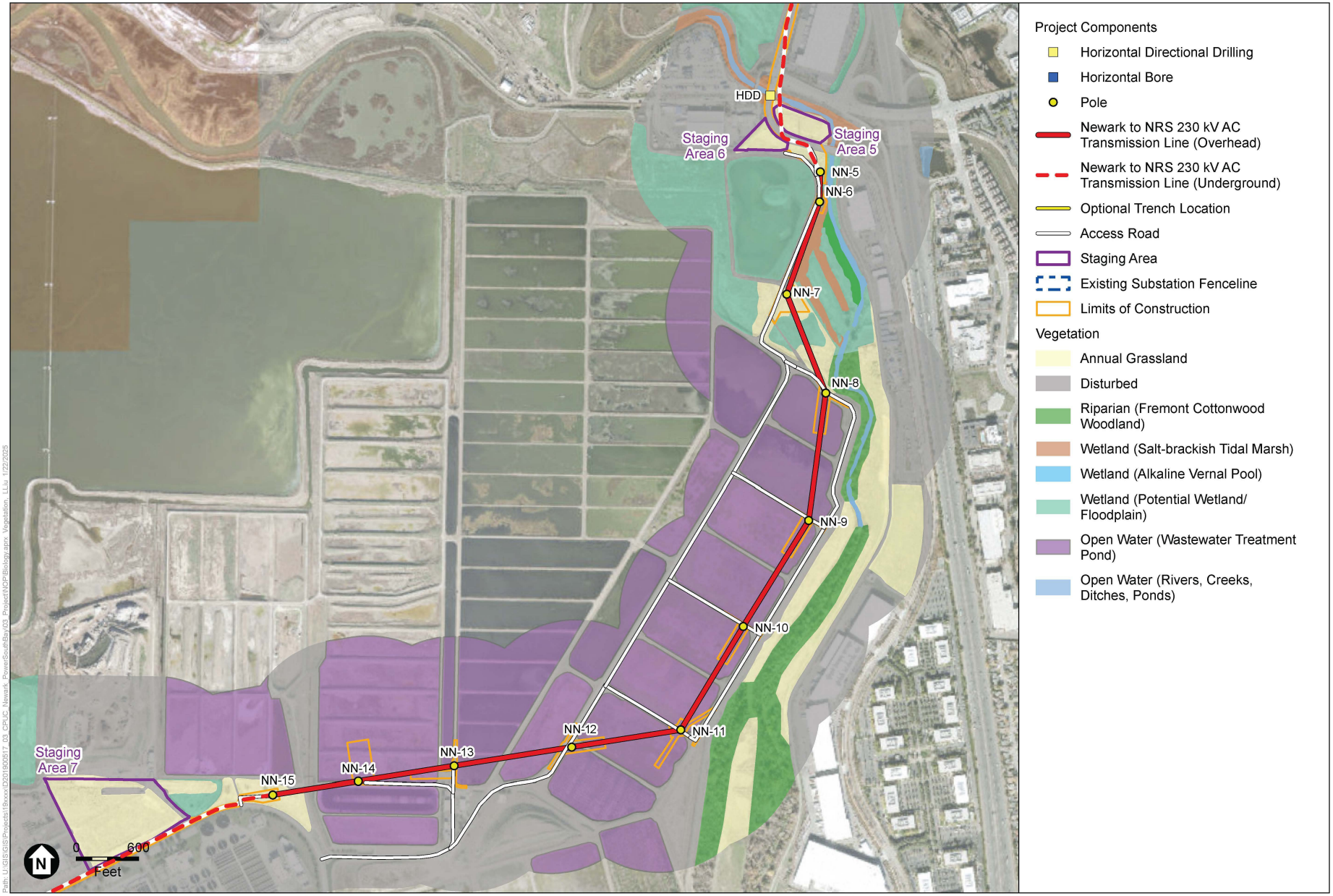
Figure 3.4-1C
Vegetation Communities in the Vicinity of the Project Area

ESA



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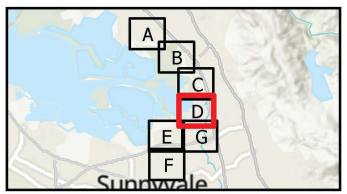

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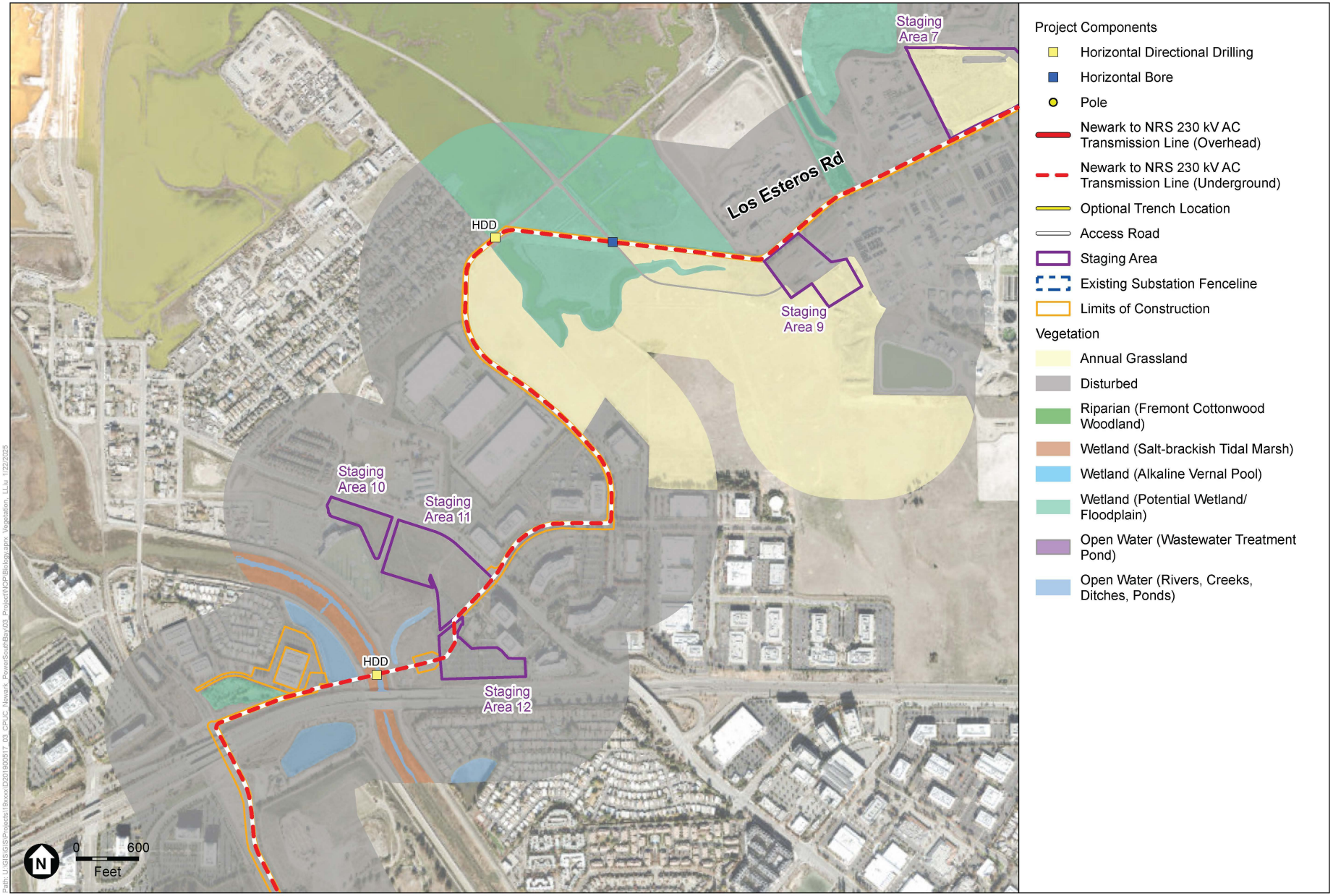
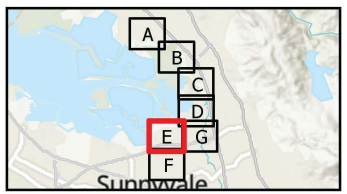
Figure 3.4-1D
Vegetation Communities in the Vicinity of the Project Area

ESA

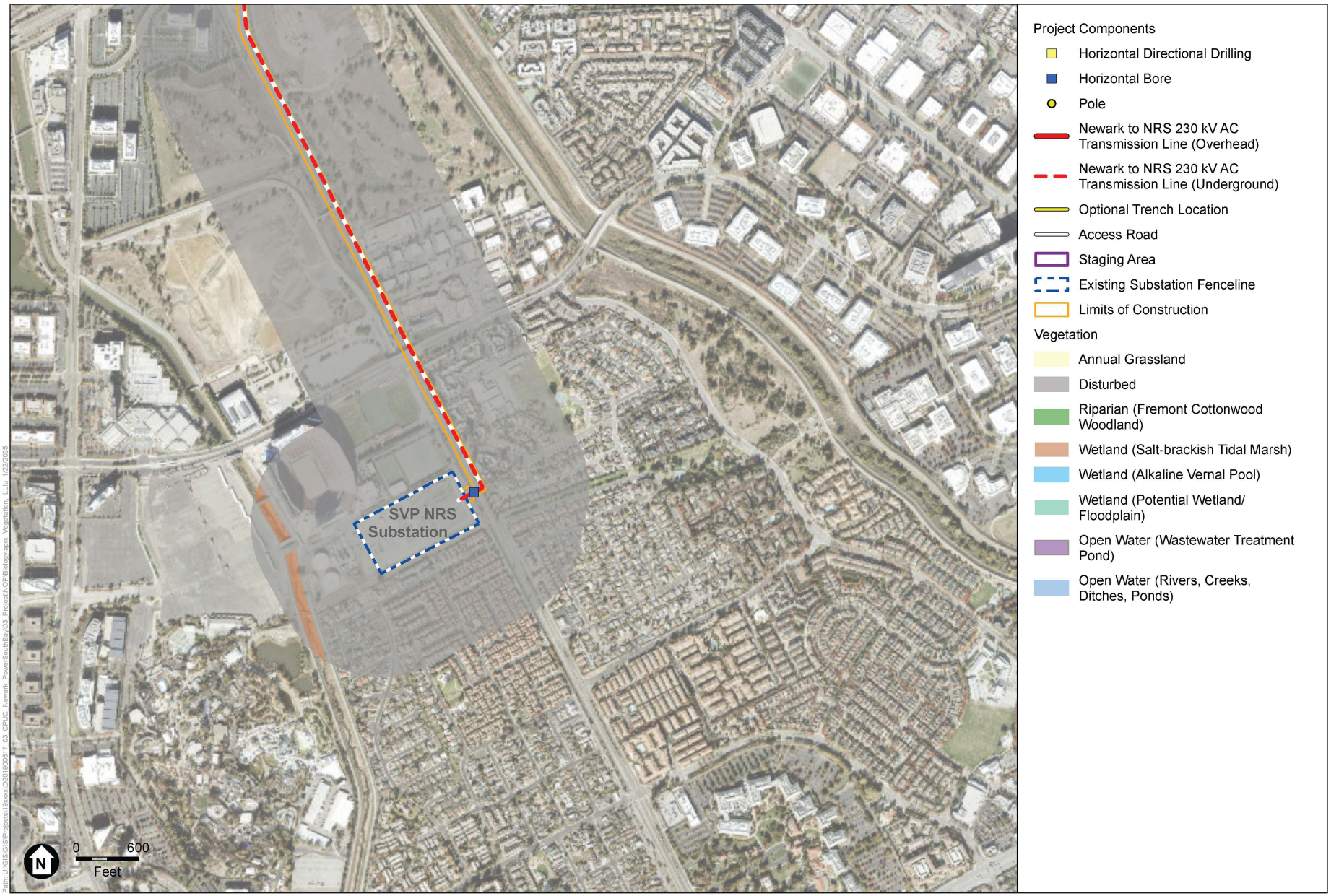


SOURCE: LSPGC 2024; ESA 2024; CDFW 2024; USFWS 2024

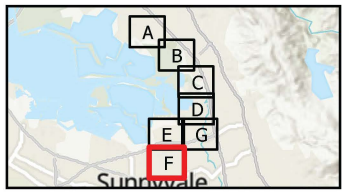


Power the South Bay Project

Figure 3.4-1E
Vegetation Communities in the Vicinity of the Project Area

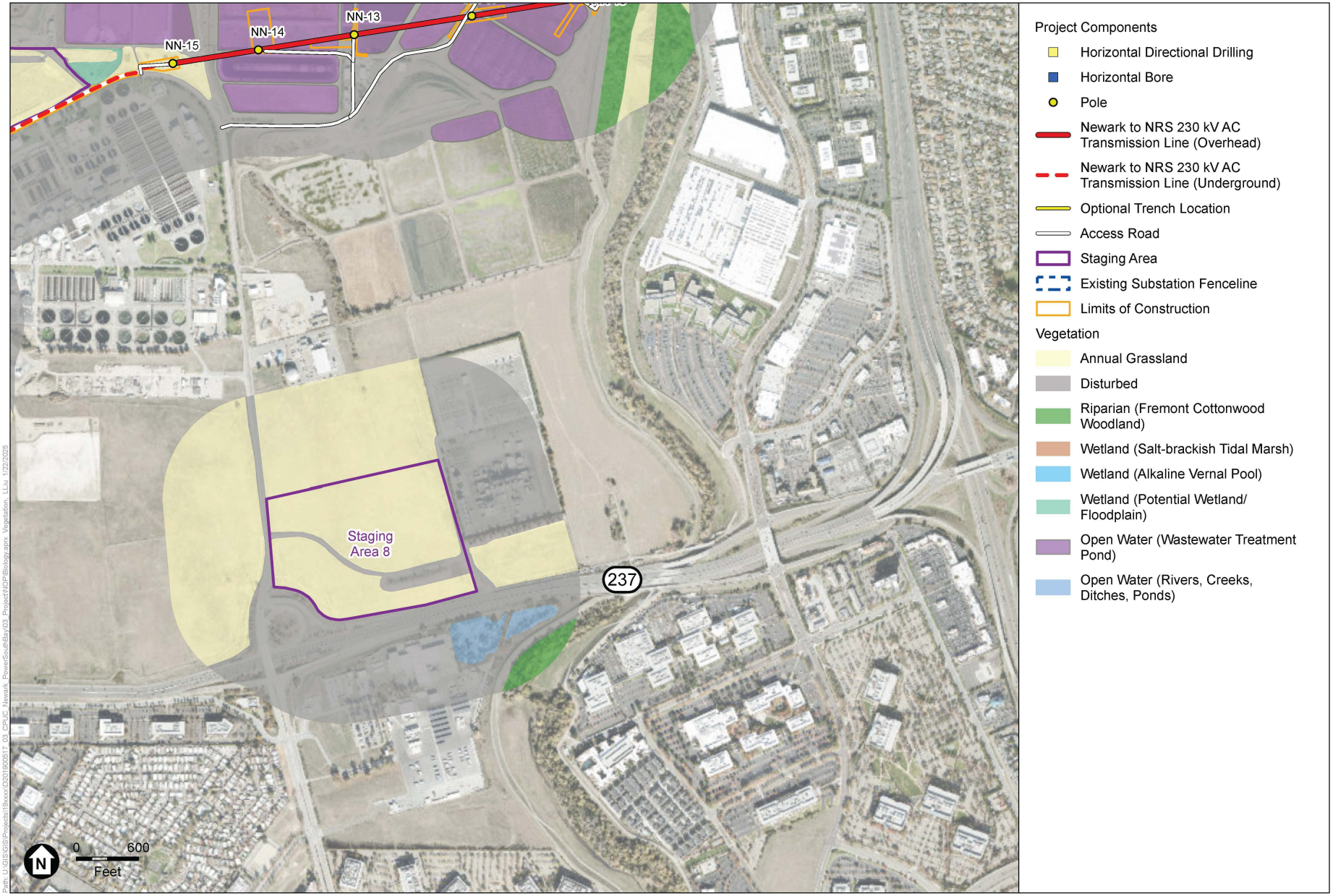


SOURCE: LSPGC 2024; ESA 2024; CDFW 2024; USFWS 2024

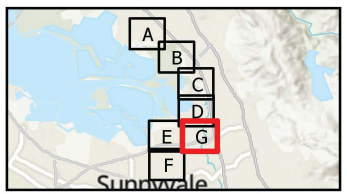


Power the South Bay Project

Figure 3.4-1F
Vegetation Communities in the Vicinity of the Project Area



SOURCE: LSPGC 2024; ESA 2024; CDFW 2024; USFWS 2024



Power the South Bay Project

Figure 3.4-1G
Vegetation Communities in the Vicinity of the Project Area

ESA

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 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 2024b; Sawyer et al. 2009). Three sensitive natural communities occur on the Project site: Fremont cottonwood woodland, alkaline vernal pool, and northern coastal salt marsh. The distribution of these communities in the Project area is discussed below under *Wetland Communities*.

Upland Communities

Disturbed

Approximately 66 percent of the biological resources study area, which includes the Project footprint plus a 1,000-foot buffer, consists of disturbed or urban land cover type. Project components that occur within disturbed or urban areas include the PG&E Newark 230 kV Substation modification area; Staging Areas 1, 2, 10, 11, and 12; portions of Staging Areas 3, 7, 8, and 9; portions of the Newark to NRS 230 kV AC transmission line alignment; and the SVP NRS 230 kV Substation modification area (Figure 3.4-1). This land cover type has been heavily 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. Non-native and invasive weeds such as stinkwort (*Dittrichia graveolens*), horseweed (*Erigeron canadensis*), wild oats (*Avena fatua*), Kentucky bluegrass (*Poa pratensis*), cheeseweed mallow (*Malva parviflora*), rose clover (*Trifolium hirtum*), yellow star-thistle (*Centaurea solstitialis*), and smilo grass (*Stipa miliacea*) may also be present in disturbed areas (LSPGC 2025).

Annual Grassland

Annual grassland habitat is present in the study area around the PG&E Newark 230 kV Substation, along portions of the Newark to NRS 230 kV AC transmission line alignment, and in Staging Areas 3, 4, 5, 6, 7, 8, and 9 (Figure 3.4-1). Approximately 12 percent of the study area is annual grassland habitat. These areas are dominated by non-native grasses and forbs such as wild oats, ripgut brome (*Bromus diandrus*), soft brome (*B. hordeaceus*), rose clover, Italian thistle (*Carduus pycnocephalus*), black mustard (*Brassica nigra*), stinkwort, yellow star-thistle, and cheeseweed mallow. Some native species such as purple needle grass (*Stipa pulchra*) and common fiddleneck (*Amsinckia menziesii*) may also be present (LSPGC 2025). Some of these areas may be disturbed, periodically mowed, or grazed.

Riparian Communities

Fremont Cottonwood Woodland: *Populus fremontii* Forest and Woodland Alliance (S3.2)

This habitat includes hardwood trees and associated shrubs and comprises approximately 4 percent of the study area, located primarily east of the Newark to NRS 230 kV AC overhead transmission line alignment near Staging Areas 5 and 6, in association with Coyote Creek and its tributaries

(Figure 3.4-1). Fremont cottonwood (*Populus fremontii*) is the dominant tree species with narrowleaf willow (*Salix exigua*), red willow (*S. laevigata*), coast live oak (*Quercus agrifolia*), northern California black walnut (*Juglans hindsii*), western sycamore (*Platanus racemosa*), and California buckeye (*Aesculus californica*) as subcomponents (LSPGC 2025). Associated shrub species include poison oak (*Toxicodendron diversilobum*), coyote brush (*Baccharis pilularis*), elderberry (*Sambucus nigra*), Himalayan blackberry (*Rubus armeniacus*), and mulefat (*Baccharis salicifolia*). The ground cover within these areas consists of forbs such as filaree (*Erodium* sp.), dove weed (*Croton setigerus*), perennial pepperweed (*Lepidium latifolium*), and annual native and non-native grasses such as wild oat (*Avena fatua*), rat's-tail fescue (*Vulpia myuros*), lop grass (*Bromus hordeaceus*), wall barley (*Hordeum murinum*), and cheatgrass (*B. tectorum*).

Wetland Communities

Wetlands include seasonally wet vernal pools; brackish or saline tidal marshes, which develop on the shores of tidally influenced waters; and floodplains bordering the former salt ponds, which are primarily mud or unvegetated, but have the hydrological potential to develop tidal marsh vegetation over time.

Alkaline Vernal Pool: *Lasthenia fremontii* Fremont's Goldfields–Salt Grass Alliance (S2)

Vernal pools are seasonal wetlands that form in depressional areas with an impermeable underground layer that collects rainwater. The rainwater gradually evaporates after winter and spring rains, and the pools completely dry in the summer and fall. Vernal pool habitat near the existing PG&E Newark 230 kV Substation composes less than 1 percent of the Project area. Project components near this area include the Newark to NRS 230 kV AC overhead transmission line at the PG&E Newark 230 kV Substation and the underground transmission line along Cushing Parkway through Don Edwards San Francisco Bay National Wildlife Refuge (Don Edwards NWR), located 1 to 1.5 miles southeast of the existing PG&E Newark 230 kV Substation (Figure 3.4-1). Vernal pools in the area support many endemic and rare plant species, such as vernal pool navarretia (*Navarretia prostrata*) and Contra Costa goldfields (*Lasthenia conjugens*). They also support vernal pool tadpole shrimp (*Lepidurus packardi*) and California tiger salamander (*Ambystoma californiense*).

Salt-Brackish Tidal Marsh: *Schoenoplectus* (*acutus*, *californicus*) Hardstem and California Bulrush Alliance (S3S4) and *Sarcocornia pacifica* (*Salicornia depressa*) Pickleweed Mats Alliance (S3)

Tidal marsh composes approximately 7 percent of the Project area and occurs in the vicinity of creeks and sloughs associated with San Francisco Bay. Project components located near these marshlands include Staging Areas 4, 5, 6, 7, and 9, and both underground and overhead portions of the Newark to NRS 230 kV AC transmission line (Figure 3.4-1). The wetlands, also referred to as *coastal salt marsh*, are tidally influenced and are typically inundated with salt or brackish water during high tides. Characteristic vegetation in the tidal wetland habitats includes California bulrush (*Schoenoplectus californicus*), common tule (*S. acutus* var. *occidentalis*), alkali bulrush (*Bolboschoenus maritimus* ssp. *paludosus*), pickleweed (*Salicornia pacifica*), marsh gumplant (*Grindelia stricta* var. *angustifolia*), saltgrass (*Distichlis spicata*), and cattails (*Typha* spp.).

Open Water

Open water habitats are associated with streams, lakes, and ponds and represent approximately 2 percent of the study area. The Newark to NRS 230 kV AC transmission line alignment crosses under open water adjacent to the west bank of the Guadalupe River, west of Staging Area 12 (Figure 3.4-1). The pond is fringed with emergent vegetation, including California bulrush or common tule.

Wastewater Treatment Ponds

The study area includes wastewater treatment ponds associated with the San José–Santa Clara Regional Wastewater Facility (RWF). The overhead transmission line from the PG&E Newark 230 kV Substation to the SVP NRS 230 kV Substation would pass over these treatment ponds, which were constructed in upland habitats and represent approximately 6 percent of the study area. Some of the ponds support vegetation, primarily non-native species, around their perimeters and provide wildlife habitat, primarily for waterfowl. Additionally, some ponds may support native vegetation, including pickleweed (LSPGC 2025). Vegetation within the RWF is regularly managed.

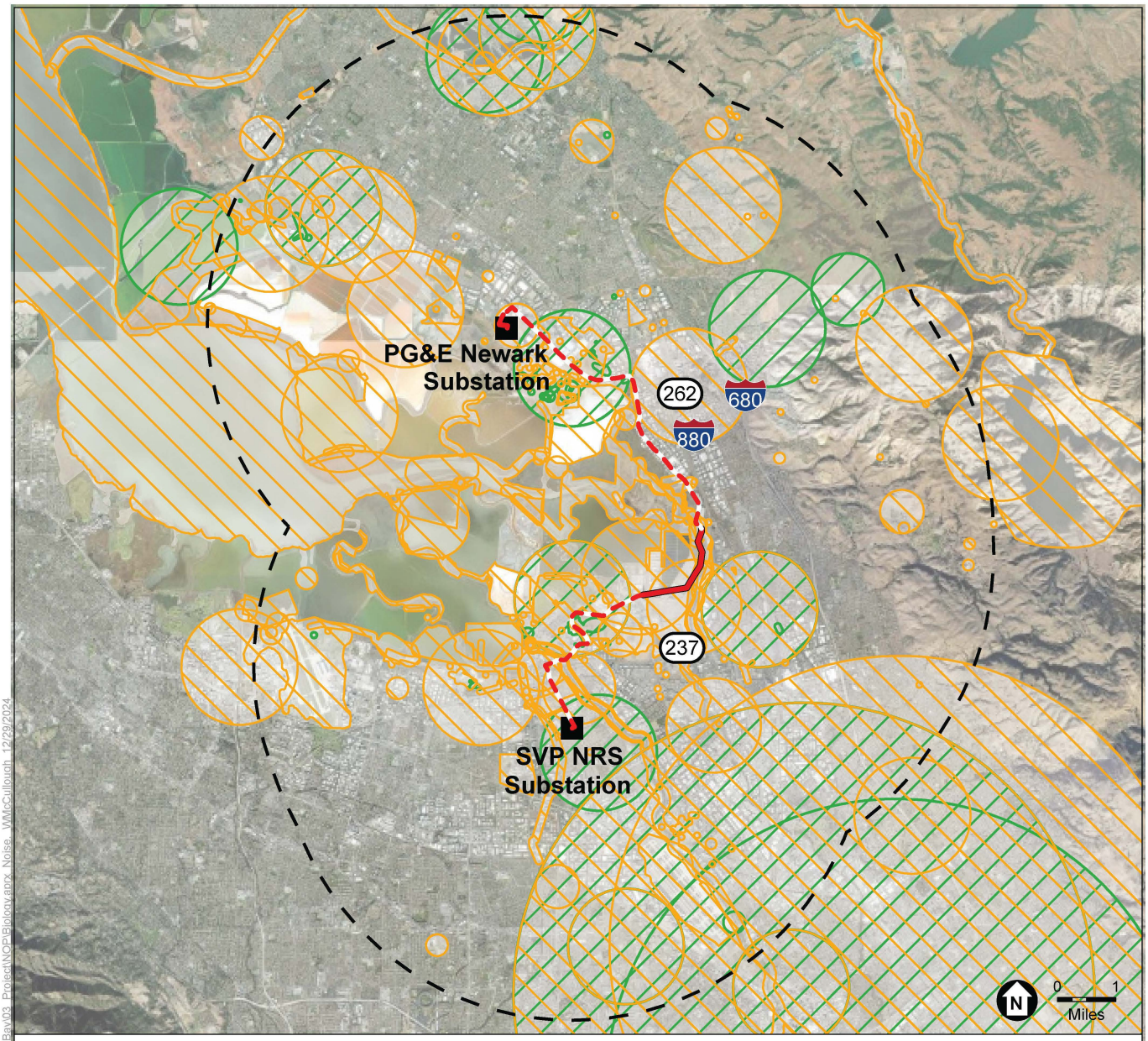
3.4.2 Special-Status Species

3.4.2.1 Special-Status Plants

All special-status plant species found within 5 miles of the Project area were evaluated for their potential to occur in the vicinity, based on the presence of suitable habitat, elevation, and soils. This evaluation used data from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation database (USFWS 2024b) and occurrence records from the California Native Plant Society (CNPS 2025) and the CNDDB (CDFW 2024a) (**Appendix D**, *Special-Status Species with Potential to Occur at the Project Area*) and **Figure 3.4-2**, *CNDDB Occurrences within 5 Miles of the Project Area*). **Table 3.4-2** presents plant species with a moderate potential to occur in the Project area and are discussed further below.

Alkali Milk Vetch

Alkali milk vetch (*Astragalus tener* var. *tener*) has a California Rare Plant Rank (CRPR) of 1B.2. This species is typically found in alkaline flats and low ground in playas, vernally moist grassland, and vernal pools. It is presumed to be extant in Alameda, Merced, Napa, Solano, and Yolo counties and extirpated from Santa Clara, Contra Costa, Monterey, San Benito, Sonoma, and Stanislaus counties (CNPS 2025). Suitable habitat is present adjacent to the PG&E Newark 230 kV Substation (see Figure 3.4-1A) and along the transmission line alignment along the Cushing Parkway viaduct. The nearest presumed extant CNDDB occurrence record (Occurrence #7) is located about 0.6-mile southwest at the Pacific Commons Preserve. Other occurrences are extirpated or possibly extirpated from 1905 or earlier (CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur along the Project's transmission line alignment in vernal pool habitat along the Cushing Parkway viaduct.



CNDDB Occurrences within 5 Miles

Wildlife Occurrences

Alameda song sparrow
Alameda whipsnake
American badger
Berkeley kangaroo rat
burrowing owl
California black rail
California least tern
California red-legged frog
California Ridgway's rail
California tiger salamander
Crotch's bumble bee
foothill yellow-legged frog
golden eagle
great blue heron
hoary bat
longfin smelt
mimic tryonia
monarch
Northern California legless lizard
northern harrier
northwestern pond turtle
obscure bumble bee
pallid bat
salt-marsh harvest mouse
salt-marsh wandering shrew
saltmarsh common yellowthroat
steelhead
Swainson's hawk
Townsend's big-eared bat
tricolored blackbird
vernal pool tadpole shrimp
western bumble bee
western ridged mussel
western snowy plover
western yellow-billed cuckoo
white-tailed kite
yellow rail

Plant Occurrences

alkali milk-vetch
brittlescale
California alkali grass
California seablite
Congdon's tarplant
Contra Costa goldfields
hairless popcornflower
Hall's bushmallow
Hoover's button-celery
lesser saltscale
long-styled sand-spurrey
most beautiful jewelflower
northern slender pondweed
Point Reyes salty bird's-beak
prostrate vernal pool navarretia
robust spineflower
saline clover
San Joaquin spearscale

Existing Substation
Newark to NRS 230 kV AC Transmission Line (Overhead)
Newark to NRS 230 kV AC Transmission Line (Underground)
5 Mile Project Buffer

CNDDB Occurrence

Plant
Wildlife

Path: U:\GIS\GIS\Projects\19xxxx\D20190517_03_CPUC_Newark_PowerSouthBay\03_Project\NOP\Biology.aprx Noise_WMcCullough 12/29/2024

SOURCE: ESA, 2024; CDFW, 2024

NOTE: The individual species and locations are considered sensitive information and, therefore, not presented within this figure.

Power the South Bay Project

Figure 3.4-2
CNDDB Occurrences within 5 Miles of Project

TABLE 3.4-2
SPECIAL-STATUS PLANTS WITH POTENTIAL TO OCCUR AT THE PROJECT AREA

Common Name *Scientific Name*	Status (Federal/ State/ CRPR)	Habitat Requirements	Identification/ Survey Period	Potential to Occur[1]
Plants				
alkali milk-vetch *Astragalus tener* var. *tener*	--/--/1B.2	Alkaline flats and low ground in playas, vernally moist grassland, and vernal pools.	Blooming period: March - June	Suitable habitat is present and CNDDB records within 5 miles of Project area.
brittlescale *Atriplex depressa*	--/--/1B.2	Species is found on alkali clay soils in chenopod scrub, playas, and vernal pools.	Blooming period: April – October	Suitable habitat is present and CNDDB records within 5 miles of Project area.
lesser saltscale *Atriplex minuscula*	--/--/1B.1	Species is found on alkali clay soils in chenopod scrub, playas, and grassland.	Blooming period: May – October	Suitable habitat is present and CNDDB records within 5 miles of Project area.
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	--/--/1B.1	Species is found in terraces, swales, floodplains, grasslands, and disturbed sites.	Blooming period: May – November	Suitable habitat is present but there are no CNDDB records within 5 miles of Project area.
Point Reyes salty bird's-beak *Chloropyron maritimum* ssp. *palustre*	--/--/1B.2	Species is found in coastal salt marsh.	Blooming period: June – October	Suitable habitat is present but there are no CNDDB records within 5 miles of Project area.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	--/--/1B.1	Species found in vernal pools, seasonal wetlands, occasionally alkaline.	Blooming period: June – August	Suitable habitat is present and CNDDB records within 5 miles of Project area.
San Joaquin spearscale *Extriplex joaquinana*	--/--/1B.2	Alkaline soils in seasonal alkali wetlands or alkali sink scrub in association with *Distichlis spicata* and *Frankenia*.	Blooming period: April - October	Suitable habitat is present but no CNDDB records within 5 miles of Project area.
Contra Costa goldfields *Lasthenia conjugens*	FE/-- /1B.1	Vernal pools, swales, wet meadows, alkaline playas, and low depressions in open grassy areas.	Blooming period: March - June	Suitable habitat is present and CNDDB records within 5 miles of Project area.
prostrate vernal pool navarretia *Navarretia prostrata*	--/--/1B.2	Mesic, alkaline soils in grasslands or in vernal pools.	Blooming period: April - July	Suitable habitat is present and CNDDB records within 5 miles of Project area.
long-styled sand-spurrey *Spergularia macrotheca* var. *longistyla*	--/--/1B.2	Marshes and swamps, meadows and seeps.	Blooming period: February - May	Suitable habitat is present and CNDDB records within 5 miles of Project area.
saline clover *Trifolium hydrophilum*	--/--/1B.2	Marshes and swamps, valley and foothill grassland, vernal pools.	Blooming period: April – June	Suitable habitat is present but there are no CNDDB records within 5 miles of Project area.
California alkali grass *Puccinellia simplex*	--/--/1B.2	Alkaline and vernally mesic soils on sinks, flats, and lake margins.	Blooming period: June – July	Suitable habitat is present and CNDDB records within 5 miles of Project area.

NOTES:

1. The special-status plants in this table have a moderate potential to occur in the Project area.

CRPR = California Rare Plant Rank

Status Codes

***Federal*:**
FE = federal endangered

***CNPS Rank Categories*:**
1B = Plants Rare, Threatened, or Endangered in California and elsewhere.

***CNPS Code Extensions*:**
.1 = Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
.2 = Fairly endangered in California (20-80% occurrences threatened)

SOURCES: CDFW 2024; CNPS 2024; USFWS 2024
USGS 7.5-minute quadrangles Milpitas, Newark, Niles, San Jose West, San Jose East, Cupertino, Mountain View, and Calaveras Reservoir.

Brittlescale

Brittlescale (*Atriplex depressa*) has a CRPR of 1B.2. This California endemic species is typically found in alkali clay soils in chenopod scrub, playas, and vernal pools. It is presumed to be extant in Alameda, Butte, Fresno, Kern, Kings, Madera, Merced, and Tulare counties (CNPS 2025). Suitable habitat is present adjacent to the PG&E Newark 230 kV Substation and along the transmission line along the Cushing Parkway viaduct. The nearest presumed extant CNDDB occurrence record (Occurrence #67, 2003) is in Don Edwards NWR about 0.3 mile southwest of the transmission line alignment along the Cushing Parkway viaduct. An additional observation in the same area was made in 2022 (Calflora 2025; CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur near the PG&E Newark 230 kV Substation and the transmission line alignment along the Cushing Parkway viaduct.

Lesser Saltscale

Lesser saltscale (*Atriplex minuscula*) has a CRPR of 1B.1. This California endemic species is typically found in alkali clay soils in chenopod scrub, playas, and vernal pools. It is presumed to be extant in Alameda, Contra Costa, Colusa, Fresno, Glenn, Kings, Merced, Solano, Tulare, and Yolo counties and extirpated from Stanislaus County (CNPS 2025). Suitable habitat is present in the PG&E Newark 230 kV Substation's vicinity and along the transmission line alignment along the Cushing Parkway viaduct. The nearest presumed extant CNDDB occurrence record (Occurrence #43, 2003) is in Don Edwards NWR about 0.3-mile southwest of the transmission line alignment along the Cushing Parkway viaduct. An additional observation in the same area was made in 2019 (iNaturalist 2025; CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur near the PG&E Newark 230 kV Substation and the transmission line alignment along the Cushing Parkway viaduct.

Congdon's Tarplant

Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*) has a CRPR of 1B.1. This California endemic species typically occurs in grasslands, particularly those with heavy clay, saline, or alkaline soils where standing water collects in seasonal wetlands. Potential habitat for Congdon's tarplant exists in annual grassland, ruderal, and wetlands within the Project area, including at the PG&E Newark 230 kV Substation, in staging areas, and along the transmission line alignment. Recent CNDDB presumed extant occurrences close to the transmission line alignment include Occurrence #41 (2016), located in ruderal, non-native, annually disked grasslands between Los Esteros Road and Disk Drive; Occurrence #16 (from 2019), located near the intersection of Cushing Parkway and Fremont Boulevard; and Occurrence #56 (2019), located about 0.5-mile southwest of the Cushing Parkway viaduct in Don Edwards NWR (CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur near the PG&E Newark 230 kV Substation and the transmission line alignment along the Cushing Parkway viaduct.

Point Reyes Salty Bird's-Beak

Point Reyes salty bird's-beak (*Chloropyron maritimum* ssp. *palustre*) has a CRPR of 1B.2. This species is typically found in coastal salt marsh habitat in California and Oregon. It is presumed to

be extant in Alameda, Humboldt, Marin, San Francisco, San Luis Obispo, and Sonoma counties and extirpated from San Mateo and Santa Clara counties (CNPS 2025). Suitable habitat for this species is present along the transmission line alignment where it crosses Coyote Creek, several tributaries to Coyote Creek between the Cushing Parkway viaduct and Staging Area 5, the Guadalupe River crossing, and potential wetlands, including diked wetlands with saline soil. A recent CNDDB occurrence record (Occurrence #83, 2015) is located in Don Edwards NWR about 4.5 miles northwest of Staging Area 1 (CDFW 2024a). Based on the regional occurrences of this species and available habitat within the Project area, there is moderate potential for this species to occur near the PG&E Newark 230 kV Substation and the transmission line alignment along the Cushing Parkway viaduct.

Hoover's Button-Celery

Hoover's button-celery (*Eryngium aristulatum* var. *hooveri*) has a CRPR of 1B.1. This California endemic species is found around vernal pools, seasonal wetlands, and occasionally alkaline habitats. It is presumed to be extant in Alameda, San Benito, San Luis Obispo, Santa Clara, and San Mateo counties (CNPS 2025). Suitable habitat is present within grasslands and potential wetlands at the PG&E Newark 230 kV Substation and along the transmission line alignment. The nearest presumed extant CNDDB occurrences are located about 0.3-mile at Pacific Commons Preserve (Occurrence #7, 1996) and about 0.7-mile southwest of Cushing Parkway (Occurrence #15, 2009). Other occurrences are either extirpated or possibly extirpated from 1905 or earlier (CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur near the PG&E Newark 230 kV Substation and the transmission line alignment along the Cushing Parkway viaduct.

San Joaquin Spearscale

San Joaquin spearscale (*Extriplex joaquiniana*) has a CRPR of 1B.2. This California endemic species is typically found in alkaline soils in chenopod scrub, meadows, seeps, playas, and grasslands. It is presumed to be extant in Alameda, Contra Costa, Colusa, Fresno, Glenn, Merced, Napa, Sacramento, San Benito, San Luis Obispo, Solano, and Yolo counties and extirpated from San Joaquin County (CNPS 2025). Suitable habitat is present in the PG&E Newark 230 kV Substation's vicinity and the transmission line alignment along the Cushing Parkway viaduct. The nearest presumed extant CNDDB occurrence record (Occurrence #54, 2011) is in Don Edwards NWR about 0.5-mile southwest of the transmission line alignment along the Cushing Parkway viaduct. Additional observations in the same area were made from 2018 through 2021 (iNaturalist 2025; CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur near the PG&E Newark 230 kV Substation and the transmission line alignment along the Cushing Parkway viaduct.

Contra Costa Goldfields

Contra Costa goldfields (*Lasthenia conjugens*) is federally listed as endangered and has a CRPR of 1B.1. This California endemic species is found around vernal pools, alkaline playas, and grasslands. It is presumed to be extant in Alameda, Contra Costa, Marin, Monterey, Napa, Solano, and Sonoma counties and extirpated in Mendocino, Santa Barbara, and Santa Clara counties (CNPS 2025). Suitable habitat is present within grasslands and potential wetlands at the

PG&E Newark 230 kV Substation and along the transmission line alignment. The nearest presumed extant CNDDB occurrences are located in Don Edwards NWR about 0.2-mile northeast of the transmission line alignment (Occurrence #29, 2009) and about 0.3 mile southwest of the transmission line alignment (Occurrence #30, 2011) along the Cushing Parkway viaduct (CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur near the PG&E Newark 230 kV Substation and the transmission line alignment along the Cushing Parkway viaduct.

Prostrate Vernal Pool Navarretia

Prostrate vernal pool navarretia (*Navarretia prostrata*) has a CRPR of 1B.2. This California endemic species is found around vernal pools, alkaline grasslands, meadows, seeps, and coastal scrub. It is presumed to be extant in Alameda, Fresno, Los Angeles, Merced, Monterey, Orange, Riverside, San Benito, San Bernardino, San Diego, and San Luis Obispo counties (CNPS 2025). Suitable habitat is present within grasslands and potential wetlands at the PG&E Newark 230 kV Substation and along the transmission line alignment. The nearest presumed extant CNDDB occurrences are located in Don Edwards NWR about 0.3-mile northeast of the transmission line alignment (Occurrence #27, 2014) and about 0.6-mile southwest of the transmission line alignment (Occurrence #26, 2003) along the Cushing Parkway viaduct (CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur near the PG&E Newark 230 kV Substation and the transmission line alignment along the Cushing Parkway viaduct.

Long-Styled Sand-Spurrey

Long-styled sand-spurrey (*Spergularia macrotheca* var. *longistyla*) has a CRPR of 1B.2. This California endemic species is found in alkaline soil in marshes, meadows, and seeps. It is presumed to be extant in Alameda, Contra Costa, Napa, and Solano counties (CNPS 2025). Suitable habitat is present within grasslands and potential wetlands in the PG&E Newark 230 kV Substation's vicinity and along the transmission line alignment. The nearest presumed extant CNDDB occurrences are located in Don Edwards NWR about 2.5 miles northwest of Staging Area 1 (Occurrence #13, 1897) and about 4 miles north of Staging Area 1 (Occurrence #1, 1934). More recent occurrences are located near the city of Livermore (CDFW 2024a), approximately 15–16 miles northeast. Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur along the Project's transmission line alignment in wetlands.

California Alkali Grass

California alkali grass (*Puccinellia simplex*) has a CRPR of 1B.2. This species is found in alkaline and vernally mesic soils on sinks, flats, and lake margins. Suitable habitat for this species is present within grasslands and potential wetlands at the PG&E Newark 230 kV Substation and along the transmission line alignment. The nearest presumed extant CNDDB occurrence is located in Don Edwards NWR about 0.6-mile southwest of the transmission line alignment (Occurrence #39, 2003) (CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur along the Project's transmission line alignment.

Saline Clover

Saline clover (*Trifolium hydrophilum*) has a CRPR of 1B.2. This species is found in mesic, alkaline soils within open areas in marshes, grassland, and vernal pools. Suitable habitat for this species is present within grasslands and potential wetlands at the PG&E Newark 230 kV Substation and along the transmission line alignment. The nearest presumed extant CNDDB occurrence is located in Don Edwards NWR about 0.7-mile southwest of the transmission line alignment (Occurrence #45, 2019) (CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur along the Project's transmission line alignment.

3.4.2.2 Special-Status Fish and Wildlife

Special-status wildlife species found within 5 miles of the Project area were evaluated for their potential to occur on-site based on the presence of suitable habitat (**Appendix D**). This assessment was based on a review of the USFWS Information for Planning and Consultation database (USFWS 2024b) and the CNDDB state wildlife database (CDFW 2024a). CNDDB occurrences are shown on Figure 3.4-2. **Table 3.4-3** presents fish and wildlife species with a moderate or high potential to occur, and these species are discussed in greater detail below.

TABLE 3.4-3
SPECIAL-STATUS FISH AND WILDLIFE WITH POTENTIAL TO OCCUR AT THE PROJECT AREA

Common Name *Scientific Name*	Status (Federal/ State/)	Habitat Requirements	Identification/ Survey Period	Potential to Occur
WILDLIFE				
Invertebrates				
vernal pool tadpole shrimp *Lepidurus packardi*	FE/--	Inhabits vernal pools, swales, and stock ponds in the Central Valley and San Francisco Bay-Delta containing clear to highly turbid water.	USFWS protocol-level wet-season sampling and dry season cyst identification	**Moderate.** Some suitable habitat is present, and there are recent CNDDB records within 5 miles of the Project area in the vicinity of the Newark Substation.
Large marble butterfly *Euchloe ausonides ausonides*	--/--	Occur in a variety of open habitats, including grasslands, meadows, and disturbed and weedy areas. Associated with common mustards found throughout the Sacramento Valley and San Francisco Bay areas.	Flight season is estimated to be February - April	**Moderate**. Weedy mustards such as wild radish, field mustard, and black mustard provide potential caterpillar habitat on much of the site.
Western bumble bee *Bombus occidentalis*	--/CT	Found in mixed woodlands, farmlands, meadows and grasslands. Nests underground in burrows or hollows; requires habitat with ample floral resources from spring through autumn.	April - September	**Moderate**. Some suitable habitat is present in the Project area, but the Project area is outside this species' current range and there are no recent CNDDB records within 5 miles of the Project area.
Crotch's bumble bee *Bombus crotchii*	--/CT	Species is found from coastal California east to the Sierra-Cascade crest and south into Mexico in relatively hot and dry grassland and scrub habitats.	April - August	**Moderate.** Some suitable habitat is present, and the Project area is within this species' current range. There are no recent CNDDB records within 5 miles of the Project area.

TABLE 3.4-3
SPECIAL-STATUS FISH AND WILDLIFE WITH POTENTIAL TO OCCUR AT THE PROJECT AREA

Common Name *Scientific Name*	Status (Federal/ State/)	Habitat Requirements	Identification/ Survey Period	Potential to Occur
Amphibians				
California tiger salamander - central California DPS *Ambystoma californiense* pop. 1	FT/CT	Species lives in vacant or mammal-occupied burrows throughout most of the year in grassland, savanna, or open woodland habitats.	October – May	**High.** Suitable habitat is present and there are CNDDB records within 5 miles of Project area.
California red-legged frog *Rana draytonii*	FT/CSC	Found in or within 300 feet of aquatic habitat. Breed in quiet, slow-moving streams, ponds, or marsh communities with emergent vegetation or dense riparian vegetation. May disperse up to two miles between suitable aquatic habitat.	Aquatic surveys of breeding sites optimally after April 15	**Moderate**. Suitable habitat is limited in Project area and there is one recent CNDDB record within 2 miles.
Reptiles				
Northwestern pond turtle *Actinemys marmorata*	PT/CSC	Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands below 6000 ft elevation.	Active outside of dormancy period November – February	**Moderate.** Suitable habitat is present in Project area and there are several recent CNDDB records within 5 miles.
Fish				
steelhead - central California coast DPS *Oncorhynchus mykiss irideus* pop. 8	FT/--	DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays.	Year-round	**High.** The Project area has some suitable habitat and Coyote Creek and Guadalupe River are critical habitat for this species.
longfin smelt *Spirinchus thaleichthys*	FC/CT	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column.	Year-round	**Moderate.** The Project area has some suitable habitat and this species could be found in the tidally-influenced reaches of the rivers, creeks, and sloughs in the Project area.
green sturgeon - southern DPS *Acipenser medirostris* pop. 1	FT/--	Species spawns in the Sacramento, Feather and Yuba Rivers and possibly in upper Stanislaus and San Joaquin Rivers. Non-spawning adults occupy marine/estuarine waters.	Year-round	**Moderate.** The Project area has some suitable habitat and this species could be found in the tidally-influenced reaches of the rivers, creeks, and sloughs in the Project area.
Birds				
California black rail *Laterallus jamaicensis coturniculus*	--/CE, FP	Inhabits saltwater, brackish, and freshwater marshes. Nests in high marsh portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grass in dense vegetation.	January – May	**Moderate**. The Project area has limited suitable habitat for this species. There are several CNDDB records within 1 mile from the last 10 years.
California Ridgway's rail *Rallus obsoletus obsoletus*	FE/CE, FP	Saltwater and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Prefers larger and more saline marshes.	January – April	**Moderate**. The Project area has limited suitable habitat for this species. There are several CNDDB records within 5 miles from the last 10 years.

TABLE 3.4-3
SPECIAL-STATUS FISH AND WILDLIFE WITH POTENTIAL TO OCCUR AT THE PROJECT AREA

Common Name *Scientific Name*	Status (Federal/ State/)	Habitat Requirements	Identification/ Survey Period	Potential to Occur
black skimmer *Runchos niger*	--/CSC	Species is found on sandy beaches, salt ponds, and shores of large lakes. Nest on open sand or salt marsh, gravel or shell bars with sparse vegetation near water.	April – October	**Moderate**. The Project area does not have nesting habitat for this species, but the species is known to nest at Pond A16 less than 1 mile from proposed Newark to NRS transmission line.
white-tailed kite *Elanus leucurus*	--/FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland.	Year-round	**Moderate.** There is suitable foraging and nesting habitat in the Project area, but only one CNDDB record from 2004.
golden eagle *Aquila chrysaetos*	--/FP	Species is found in rolling foothills, mountain areas, sage-juniper flats, and desert.	Year-round	**Moderate.** The Project area has limited suitable foraging habitat and there is one recent CNDDB nesting record within 1 mile.
Bald eagle *Haliaeetus leucocephalus*	--/CE, FP	Typically nest and forage near estuaries, large lakes, reservoirs, rivers, and coasts.	Year-round	**Moderate.** The Project area has limited suitable foraging habitat and there is one CNDDB nesting record within 1 mile.
Northern harrier *Circus hudsonius*	--/CSC	Inhabits marshes, prairies, and grasslands. Nests on ground in shrubby vegetation, usually at marsh edge.	Year-round	**Moderate.** May forage over area but suitable isolated, dense grassland or marsh nesting habitat is very limited.
Western burrowing owl *Athene cunicularia hypugaea*	-/SC	Species is found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Year-round	**High.** Numerous records near Project area, especially along Cushing Parkway southeast of Newark Substation.
Alameda song sparrow *Melospiza melodia pusillula*	--/CSC	Resident of salt marshes bordering south arm of San Francisco Bay.	Year-round	**High.** The Project area has some suitable habitat and there are several CNDDB records within 5 miles.
saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	--/CSC	Resident of the San Francisco Bay region, in freshwater and saltwater marshes.	February – August	**Moderate.** The Project area has some suitable habitat and there are several CNDDB records within 5 miles.
Mammals				
salt marsh harvest mouse *Reithrodontomys raviventris*	FE/CE, FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries.	Year-round	**Moderate.** The Project area has some suitable habitat and there are numerous CNDDB records within 5 miles.

STATUS CODES

Federal:
FE = federal endangered
FT = federal threatened
FC = candidate
PT = proposed threatened

California:
CE = California state endangered
CT = California state threatened
CR = California state rare
CSC = California species of special Concern
SC = California state candidate for listing

SOURCES: CDFW 2024; CNPS 2024; USFWS 2024
USGS 7.5-minute quadrangles Milpitas, Newark, Niles, San Jose West, San Jose East, Cupertino, Mountain View, and Calaveras Reservoir.

Vernal Pool Tadpole Shrimp

Vernal pool tadpole shrimp (*Lepidurus packardi*) is federally listed as endangered. This species is found in vernal pools, swales, and stock ponds in the Central Valley and the San Francisco Bay/ Sacramento–San Joaquin Delta containing clear to highly turbid water. Suitable habitat is present at the PG&E Newark 230 kV Substation and the transmission line alignment along the Cushing Parkway viaduct. The nearest presumed extant CNDDB occurrence records are located adjacent to the PG&E Newark 230 kV Substation (Occurrence #374) and about 0.6-mile southwest of the transmission line alignment (Occurrence #7) along the Cushing Parkway viaduct (CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur near the PG&E Newark 230 kV Substation and the transmission line alignment along the Cushing Parkway viaduct.

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 (FESA). This species was formerly common in the Central Valley, the San Francisco Bay/ Sacramento–San Joaquin Delta, and the 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 present at the PG&E Newark 230 kV Substation, in staging areas, and the transmission line alignment in grassland and disturbed habitat. Many of the annual grasslands and disturbed areas will have mustard plants. Numerous records exist within 5 miles of the Project 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 along the Project's transmission line alignment.

Western Bumble Bee

Western bumble bee (*Bombus occidentalis*) is a candidate species for listing under the California Endangered Species Act (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. The nearest presumed extant CNDDB occurrence records (CDFW 2024a) are:

- About 3 miles northwest of the PG&E Newark 230 kV Substation (Occurrence #227 from 1971).
- About 3 miles northeast of the transmission line alignment at the Cushing Parkway viaduct (Occurrence #229 from 1969).
- Within 5 miles of the SVP NRS 230 kV Substation (Occurrence #254from 1979).

Based on the regional occurrences of this species and available habitat within the study area, there is moderate potential for this species to occur along the Project's transmission line alignment.

Crotch's Bumble Bee

Crotch's bumble bee (*Bombus crotchii*) is a candidate species for listing under CESA. This species is found in relatively hot and dry grassland and scrub habitats, ranging from coastal California eastward to the crest of the Sierra Nevada and Cascade Range, and southward into Mexico. Suitable habitat is present at the PG&E Newark 230 kV Substation in staging areas, and grassland along the transmission line alignment (see Figure 3.4-1). The nearest presumed extant CNDDB occurrence record (Occurrence #23, 1903) is located about 5 miles south of the Project area (CDFW 2024a). Additionally, a 2023 occurrence is documented from Alviso Marina County Park, about 0.9 mile north of Staging Area 10 (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 along the Project's transmission line alignment.

Central California Coast Steelhead Distinct Population Segment

The Central California Coast steelhead (*Oncorhynchus mykiss irideus*) distinct population segment (DPS) is federally listed as threatened. This DPS includes fish found in coastal river basins from the Russian River south to Soquel and Aptos Creek, and in the drainages of San Francisco Bay and San Pablo Bay, including the Napa River. They are also known to migrate to South San Francisco Bay, where they spawn in the Guadalupe River, Coyote Creek, and San Francisquito Creek. Historically, most streams within the San Francisco Bay estuary containing suitable habitat supported steelhead populations. Current runs in San Francisco Bay tributaries are estimated at fewer than 10,000 fish (Leidy 2007).

Steelhead eggs (laid in gravel nests called *redds*), alevins (gravel-dwelling hatchlings), fry (juveniles newly emerged from stream gravels), and young juveniles all rear in freshwater until they become large enough to migrate to the ocean to finish rearing and maturing into adults. Status reviews of steelhead in California document much variation in life history (Shapovalov and Taft 1954). Although variation occurs, in coastal California, steelhead usually live in freshwater for 1–2 years, then spend an additional 2–3 years in the ocean before returning to their natal streams to spawn. Adult steelhead typically migrate to San Francisco Bay tributaries 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. During the adult migration season, the timing of upstream migration typically correlates with seasonal high flows and lower water temperatures.

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. Young steelhead feed on a variety of aquatic and terrestrial insects, and emerging fry are sometimes preyed upon by older juveniles. Some researchers indicate an upper lethal temperature for Pacific salmonids as low as 22.9 degrees Celsius (22.9°C); however, steelhead can survive for short periods at elevated temperatures (26°C–27°C), especially if abundant food and dissolved oxygen exist (Moyle 2002). Juvenile steelhead migrate episodically from natal streams during high flows in the fall, winter, and spring, with peak migration occurring in April and May (Fukushima and Lesh 1998).

Marginally suitable habitat for Central California Coast steelhead DPS is present in the Guadalupe River and Coyote Creek. Historically, the Guadalupe River watershed supported a steelhead run, but because of 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 has declined from its historic levels because of human activities that have degraded spawning and rearing habitats and disrupted and impeded steelhead migration (Leidy et al. 2005). Therefore, Central California Coast steelhead DPS has moderate potential to occur in the Guadalupe River and Coyote Creek along the Project's transmission line alignment.

Longfin Smelt

Longfin smelt (*Spirinchus thaleichthys*) is state listed as threatened and a federal candidate for listing. This small, slender-bodied anadromous, primarily pelagic fish generally lives for 2 years, although some individuals have been observed to live for 3 years. Adults prefer salinities of 15–30 parts per thousand before their spawning migration, while early life stages have a lower salinity tolerance (Moyle 2002). Longfin smelt may require freshwater to spawn because very young larvae have a low salinity tolerance. Longfin smelt have been recorded in low numbers in recent years in portions of South San Francisco Bay in the study area (IEP 2014).

Adult longfin smelt may extend their distribution to South San Francisco Bay in wet winters, including the marshes and sloughs of lower Coyote Creek. Suitable habitat is present for juveniles and subadults, along the transmission line alignment in coastal brackish, salt marsh, and freshwater marsh. This species is known to use portions of South San Francisco Bay tidal sloughs, including Upper and Lower Coyote Creek, Alviso Slough (at the mouth of the Guadalupe River), and Artesian Slough, when appropriate water quality conditions occur during the October–April spawning season. They also support post-larval recruits in April through May during years with high precipitation and freshwater outflow (Lewis et al. 2020). Therefore, longfin smelt has a moderate potential to occur within the study area.

Green Sturgeon

The southern DPS of North American green sturgeon (*Acipenser medirostris* population 1) is listed as threatened by the National Marine Fisheries Service (NMFS) under FESA (*Federal Register* Title 71, Page 17757, April 7, 2006). Green sturgeon are the most widely distributed member of the sturgeon family and the most marine-oriented of the sturgeon species, entering rivers only to spawn. Adult green sturgeon migrate into freshwater beginning in late February, with spawning occurring in late spring and early summer (March through July) and peak activity occurring in April and June. Green sturgeon predominantly spawn in the upper Sacramento River. After spawning, juveniles remain in fresh and estuarine waters for 1–4 years before they migrate out to the sea (Moyle et al. 1995). Green sturgeon may occasionally occur in the study area within tidal riverine and estuarine habitats of larger tributary streams such as the Guadalupe River. Therefore, this species has a moderate potential to occur at locations where the proposed Newark to NRS 230 kV AC transmission line crosses Coyote Creek, several tributaries to Coyote Creek between the Cushing Parkway viaduct and Staging Area 5, and the Guadalupe River.

California Tiger Salamander

The California tiger salamander (*Ambystoma californiense*) (CTS) is state and federally listed as threatened (Central California DPS). This species reproduces in vernal pools and other seasonal ponds, including livestock ponds, typically from November through April, after triggering rain events. For the rest of the year, it is terrestrial and occupies small-mammal burrows in grassland, oak savanna, or oak woodland habitats, before migrating up to 1.3 miles to a breeding location. The presence of predatory fish or breeding bullfrog populations prevents CTS from breeding in permanent ponds (USFWS 2017).

Suitable habitat is present at the PG&E Newark 230 kV Substation and along the transmission line alignment along the Cushing Parkway viaduct. The nearest presumed extant CNDDB occurrence records are located around and near the viaduct (Occurrences #224, 310, 314, and 526, 1993–2004) at Don Edwards NWR (CDFW 2024a). Based on the regional occurrences of this species and available habitat within the study area, there is high potential for this species to occur near the PG&E Newark 230 kV Substation and the transmission line alignment along the Cushing Parkway viaduct.

California Red-Legged Frog

The California red-legged frog (*Rana draytonii*) is federally listed as threatened. 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; therefore, suitable habitat is limited in the Project area, where waters are primarily brackish. The nearest presumed extant CNDDB occurrence records are Occurrence #210 in Agua Caliente Creek, across Interstate 680 about 1.5 miles east of the transmission line alignment at Fremont Boulevard; and Occurrence #1495 in Berryessa Creek about 4.3 miles southeast of the transmission line alignment at the RWF water treatment ponds (CDFW 2024a). This species has low potential to occur upstream in Coyote Creek, from where it could drift down into waters along the Project's transmission line alignment.

Northwestern Pond Turtle

The northwestern pond turtle (*Actinemys marmorata*) (NWPT) 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. NWPT can mate throughout spring, summer, and fall, with nest sites typically within 300 feet of water. Females sometimes travel up to 0.3-mile to find a suitable nest site, which are typically in loose, sandy soils with low disturbance. Both sexes overwinter in similar soil, and hatchlings often remain in their nest through their first winter after they emerge from the eggs in fall. Although this species can tolerate full-strength seawater for a short period of time, it is normally found in freshwater (Thomson et al. 2016).

Suitable habitat for the NWPT can be found in the marginal stream and riparian habitat along Coyote Creek and its tributaries, the Guadalupe River, and within freshwater marsh and ponds. The nearest presumed extant CNDDB occurrence records are as follows (CDFW 2024a):

- Occurrence #1632 (1987 and 2023), located in Coyote Creek between State Route (SR) 237 and Dixon Landing Road, adjacent to and crossed by the transmission line alignment.
- Occurrence #1620 (2011 and 2023), located in Guadalupe River about 2.6 miles southeast of the transmission line alignment crossing at Guadalupe River.
- Occurrence #1472 (2011 and 2023), located in San Tomas Aquino Creek and a neighboring vegetated stormwater detention basin, about 0.5 mile from the transmission line alignment at Lafayette Street north of the SVP NRS 230 kV Substation.

Based on the regional occurrences and available habitat within the Project area, there is moderate potential for this species to occur along the Project's transmission line alignment, particularly near perennial water sources.

California Black Rail

California black rail (*Laterallus jamaicensis coturniculus*) is state listed as threatened and is a CDFW Fully Protected species. More than 90 percent of California black rails are found in the marshes of San Pablo Bay and Suisun Bay (Spautz et al. 2005); however, black rails can occur in freshwater and brackish areas of South San Francisco Bay and in managed wetlands (Tsao et al. 2015). Black rails prefer marshes that are close to water, large (interior more than 50 meters from the edge), away from urban areas, and saline to brackish with a high proportion of pickleweed, alkali bulrush, marsh gumplant, rushes, and cattails (Spautz et al. 2005).

Some suitable habitat for California black rails is present along the transmission line alignment and staging areas, including brackish tidal marsh and diked marsh with emergent vegetation. This habitat can be found at Coyote Creek, several tributaries to Coyote Creek between the Cushing Parkway viaduct and Staging Area 5, the Guadalupe River crossing, and potential wetlands, including diked wetlands with saline soil between the Cushing Parkway viaduct and SVP NRS 230 kV Substation. Presumed extant occurrence records within a 5-mile radius of the Project area are as follows (CDFW 2024a):

- Occurrence #299 (2009 and 2015), located in Alviso Marina County Park in brackish tidal marsh, about 0.9 mile northwest of the transmission line crossing at Guadalupe River.
- Occurrence #300 (2016), located in brackish tidal marsh dominated by alkali bulrush, about 1.7 miles north of the intersection of Los Esteros Road and Disk Drive.
- Occurrence #301 (2013), located in brackish tidal marsh along Coyote Creek, about 3.4 miles northwest of the transmission line alignment crossing at the Guadalupe River.

California black rail has moderate potential to nest along the transmission line alignment in suitable wetland habitats.

California Ridgway's Rail

California Ridgway's rail (*Rallus obsoletus obsoletus*) is state and federally listed as endangered and is a CDFW Fully Protected species. The preferred habitat for this species is emergent salt and brackish tidal wetlands subject to direct tidal circulation and characterized by predominant coverage of pickleweed and cordgrass (Goals Project 2000). In South and Central San Francisco Bay, this rail typically inhabits salt marshes dominated by pickleweed and Pacific cordgrass and forages along tidal mudflats and sloughs.

Suitable habitat in the form of coastal salt and brackish marsh is present along the transmission line alignment at Coyote Creek, several tributaries to Coyote Creek between the Cushing Parkway viaduct and Staging Area 5, and the Guadalupe River crossing. The closest presumed extant CNDDB records to the Project include Occurrence #20 (1975), located about 1.5 miles to the northwest in the brackish tidal marsh of Alviso Slough; and Occurrence #35 (1975), located in the coastal salt marshes along Coyote Creek about 1.7 miles north of the intersection of Los Esteros Road and Disk Drive (CDFW 2024a).

Recent surveys by the Invasive *Spartina* Project have documented occurrences near the mouth of Alviso Slough in 2023 and Coyote Creek in 2016 (OEI 2016, OEI 2023). Additional CNDDB records (Occurrence #41, 1975 and 1979) are about 2.2 miles northwest of the transmission line alignment's Guadalupe River crossing (CDFW 2024a). Surveys by the Invasive *Spartina* Project have also documented occurrences in 2016 and 2023 in the larger remnant patches of tidal marsh along Guadalupe Slough (OEI 2016, OEI 2023). California Ridgway's rail has moderate potential to nest and forage within suitable wetland habitats crossed by or near Project elements and staging areas.

Black Skimmer

Black skimmer (*Rynchops niger*) is a CDFW Species of Special Concern. This seabird breeds in North and South America. It is a migratory bird that is found year-round in coastal locations in Central and South San Francisco Bay where it forages over bays, estuaries, and lagoons (less commonly rivers and lakes) and uses mudflats, sandbars, and beaches to rest. Black skimmers nest on sandy beaches, shell banks, islands, and on elevated portions of salt marshes, usually with other tern species (Gochfeld et al. 2020). Suitable foraging habitat for black skimmer is present along the transmission line alignment in open-water areas. Black skimmer has been documented breeding in Pond A16 in Don Edwards NWR about 0.7 mile north of the transmission line alignment along Los Esteros Road (iNaturalist 2025). Black skimmer has moderate potential to nest in suitable habitat within the study area along the transmission line alignment.

White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is a CDFW Fully Protected species. 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. White-tailed kite typically nests in the upper third of trees, which can range from 10 to 160 feet tall, that generally are growing in isolation in open country. Suitable foraging habitat for white-tailed kites is present throughout the study area, including 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. Occurrence records that are presumed extant within 5 miles of the study area include Occurrence #1 (1971), located about 0.5 mile south of the transmission line alignment in a eucalyptus tree south of the RWF and Los Esteros Road; and Occurrence #80 (2004), located adjacent to the transmission line alignment and Staging Area 12 in an ornamental pine tree (CDFW 2024a). Therefore, white-tailed kite has moderate potential to nest in suitable habitat in the study area.

Golden Eagle

Golden eagle (*Aquila chrysaetos*) is a CDFW Fully Protected species and is protected under the Bald and Golden Eagle Protection Act. This species is found in the foothills and mountains throughout California and is an uncommon non-breeding visitor to lowlands such as the Central Valley. Golden eagles nest on cliffs and escarpments or in tall trees overlooking open country. They forage in annual grasslands, chaparral, and oak woodlands with plentiful medium-sized and large mammals. Suitable nesting and foraging habitat for golden eagles is present in some parts of the study area where there are large open areas with tall trees. Recent eagle nesting (2016, 2018, 2019, and 2020) occurred about 0.5-mile south of the transmission line alignment, in a palm tree south of the RWF and Los Esteros Road (CDFW 2024a). Therefore, golden eagles have moderate potential to forage and nest in the study area.

Bald Eagle

Bald eagle (*Haliaeetus leucocephalus*) is state listed as endangered, is 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 loyalty to their nesting sites. They feed primarily on fish that they catch or steal from other birds, but also will feed on waterfowl, turtles, rabbits, snakes, other small animals, and carrion. Suitable nesting and foraging habitat for golden eagles is present in some parts of the study area where there are large open areas with tall trees. Recent eagle nesting (in 2017, 2018, 2019, 2020, 2021, 2022, and 2024) occurred about 0.7 mile east of the transmission line alignment, in a redwood tree at Curtner Elementary School in the city of Milpitas (Gelhaus 2021; Nelson-Embry 2023). Therefore, bald eagles have moderate potential to nest in the study area.

Northern Harrier

Northern harrier (*Circus hudsonius*) is a CDFW Species of Special Concern. This species breeds and forages in a range of open habitats, including freshwater, brackish and saltwater marshes, wet meadows, weedy borders of lakes, rivers and streams, grasslands, weed fields, pastures, and some croplands. Northern harriers nest on the ground in patches of vegetation that provide some cover and feed on a broad variety of small to medium-sized rodents and passerines (voles are common prey). In California, northern harriers occur more broadly and in much greater numbers during migration and winter than during the breeding season, which extends from March through August (Davis and Niemela 2008). This species historically bred in Santa Clara County, and it breeds widely in the Central Coast region (Davis and Niemela 2008). Suitable habitat for the northern

harrier is present around the PG&E Newark 230 kV Substation, along the transmission line alignment, and in some staging areas in brackish and salt marsh, diked salt marsh, riparian, and freshwater marsh (Davis and Niemela 2008). Occurrence records that are presumed extant within 5 miles of the Project area include Occurrence #4 (1971), located 3.3 miles west of the PG&E Newark 230 kV Substation within a salt marsh at the mouth of Coyote Creek; and Occurrence #2 (1971), located 4.3 miles west of the PG&E Newark 230 kV Substation near the mouth of Newark Slough. Therefore, northern harrier has moderate potential to nest in suitable habitats within and near the study area.

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 resides in California and 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 abundant prey species, primarily insects. Breeding occurs between February and August, peaking in April and May. Suitable nesting and foraging habitat for western burrowing owls is present near the PG&E Newark 230 kV Substation and the SVP NRS 230 kV Substation, along the transmission line alignment, and within or near some staging areas.

Numerous presumed extant CNDDB occurrence records are within a 5-mile radius of the Project area (CDFW 2024a):

- Occurrence #481 (1971 and 2011), located at the PG&E Newark 230 kV Substation, which is surrounded by grazed annual grassland.
- Occurrence #680 (1981, 2003, 2006, 2008, 2015, and 2016), located in Don Edwards NWR around the Cushing Parkway viaduct and along the transmission line alignment.
- Occurrence #392 (2000, 2001, 2004–2006, 2008, 2009, and 2012–2016), overlapping part of Staging Area 9 and adjacent to the transmission line alignment between Los Esteros Road and Disk Drive on undeveloped lands southwest of the RWF.
- Occurrence #1932 (1999–2004), overlapping the transmission line alignment along Lafayette Street.
- Occurrence #345 (1998, 2001, 2004, 2013, and 2014), located around the SVP NRS 230 kV Substation.

The undeveloped lands southwest of the RWF have been preserved as a burrowing owl management area and they have been documented breeding from 2014 through 2023 (Santa Clara Valley Habitat Agency 2024). Therefore, western burrowing owl has a high potential to breed in and near the Project area.

Alameda Song Sparrow

Alameda song sparrow (*Melospiza melodia pusillula*) is a CDFW Species of Special Concern. This subspecies of song sparrow is endemic to California and resides year-round in South San Francisco Bay's coastal salt marshes. It nests in marsh vegetation tall enough to keep nests above

high-tide levels (Chan and Spautz 2008). Suitable habitat for the Alameda song sparrow is present along the transmission line alignment and some staging areas in brackish and salt marsh, diked salt marsh, riparian, and freshwater marsh. Occurrence records that are presumed extant within a 5-mile radius of the study area include Occurrence #25 (1947), located in the vegetated portion of the Guadalupe River about 0.5 mile south of the transmission line alignment crossing; and Occurrence #1 (2004), located in New Chicago Marsh in Don Edwards NWR about 0.5 mile north of the transmission line alignment along Los Esteros Road (CDFW 2024a). Therefore, Alameda song sparrow has a high potential to nest in suitable habitat along the transmission line alignment and in some staging areas near wetlands.

San Francisco Common Yellowthroat

San Francisco (=saltmarsh) common yellowthroat (*Geothlypis trichas sinuosa*) is a CDFW Species of Special Concern. This species is found in Marin, Napa, Sonoma, Solano, San Francisco, San Mateo, Santa Clara, and Alameda counties within freshwater marshes, brackish marshes, and riparian woodland and swamps. San Francisco common yellowthroat uses areas of tall grasses, tules, and willow thickets for cover and nesting substrate. In the brackish and saline tidal marsh habitat around San Francisco Bay, the abundance of San Francisco common yellowthroat is associated with a high percentage of rushes, sedges, and perennial pepperweed (Gardali and Evens 2008). Suitable habitat for San Francisco common yellowthroat is present along the transmission line alignment and in some staging areas in brackish and salt marsh, diked salt marsh, riparian, and freshwater marsh. Occurrence records that are presumed extant within a 5-mile radius of the study area are as follows (CDFW 2024a):

- Occurrence #10 (1976, 1984 and 1998), located adjacent to and overlapping parts of the transmission line alignment along Fremont Boulevard between Landing Way and the east side of the treatment ponds and Staging Areas 5 and 6.
- Occurrence #117 (1984), located at Mallard Slough about 0.2-mile north of the transmission line alignment along Los Esteros Road and Staging Area 9.
- Occurrence #72 (1985), located in wetlands fringing the Guadalupe River about 0.3 mile north of the transmission line alignment at Gold Street and SR 237.
- Occurrence #45 (1985 and 1999), located within the Guadalupe Slough and Alviso salt ponds, about 0.4-mile northwest of the transmission line alignment at Gold Street and SR 237.

San Francisco common yellowthroat has moderate potential to nest in suitable habitat along the transmission line alignment and some staging areas.

Salt Marsh Harvest Mouse

The salt marsh harvest mouse (*Reithrodontomys raviventris*) (SMHM) is state and federally listed as endangered and is a CDFW Fully Protected species. This rodent species is endemic to salt and brackish marshes of the San Francisco Bay estuary. The SMHM is adapted to life in tidal marshes and depends mainly on dense tidal marsh vegetation, especially pickleweed, as its primary cover and food sources. It may also use a broader source of food and cover that includes saltgrass, alkali bulrush, and other vegetation typically found in the tidal marshes of this region (Smith and Kelt 2019). The distribution of high-tide cover and escape habitat appears to limit viable populations

of salt marsh harvest mice (USFWS 2013). Upland refugia are an essential habitat component during high-tide events when the marsh plain is inundated, as salt marsh harvest mice are highly dependent on cover (USFWS 2013). As this species is cover-dependent, salt marsh harvest mice are unlikely to move long distances over bare areas.

Suitable habitat for the SMHM is present along the transmission line alignment and several staging areas. These habitats include brackish tidal marsh and diked marsh with emergent vegetation at Coyote Creek, several tributaries to Coyote Creek between the Cushing Parkway viaduct and Staging Area 5, the Guadalupe River crossing, and potential wetlands, including diked wetlands with saline soil between the Cushing Parkway viaduct and the SVP NRS 230 kV Substation. Occurrence records that are presumed extant within a 5-mile radius of the study area are as follows (CDFW 2024a):

- Occurrence #115 (1960 and 1990), located in diked salt marsh north of Los Esteros Road and Staging Area 9.
- Occurrence #116 (1985, 1990, and 2003), located at the north end of the RWF water treatment ponds adjacent to Staging Areas 5 and 6 and transmission line towers NN-4, NN-5, and NN-6.
- Occurrence #97 (1985, 1986, 1989, 1998, and 2006), located between Fremont Boulevard and Newby Island Landfill at the south end of the Coyote Creek lagoon and diked potential wetlands.
- Occurrence #159 (1996), located between Fremont Boulevard and Interstate 880 in diked potential wetlands about 650 feet from the transmission line alignment.
- Occurrence #80 (1985), located in potential wetlands about 0.2 mile from Fremont Boulevard at Landing Road.

Therefore, SMHM has moderate potential to occur along the transmission line alignment and near staging areas.

3.4.2.3 Critical Habitat

Designated critical habitat for one plant and three wildlife species occurs along the alignment. USFWS critical habitat for one special-status plant species, Contra Costa goldfields (*Lasthenia conjugens*), is mapped within the Project area at the Newark to NRS 230 kV AC underground transmission line along the Cushing Parkway viaduct (CDFW 2024a).

The Newark to NRS 230 kV AC underground or bridge-attached transmission line crosses USFWS critical habitat for one special-status wildlife species, vernal pool tadpole shrimp (*Lepidurus packardi*), along the Cushing Parkway viaduct (CDFW 2024a).

The transmission line also crosses NMFS critical habitat for one special-status fish species, central California coast steelhead (*Oncorhynchus mykiss irideus* pop. 8), several times at Coyote Creek near Staging Area 5 and at the Guadalupe River.

It also crosses one NMFS special-status fish species, green sturgeon (*Acipenser medirostris* pop. 1), at Coyote Creek, several tributaries to Coyote Creek between the Cushing Parkway viaduct and Staging Area 5, and the Guadalupe River crossing (CDFW 2024a).

The underground portion of the transmission line alignment passes within 700 feet of USFWS critical habitat for one special-status wildlife species, western snowy plover (*Charadrius nivosus nivosus*), located south of the Cushing Parkway viaduct (CDFW 2024a).

3.4.2.4 Wildlife Movement and Corridors

Wildlife movement corridors are considered an important ecological resource by CDFW and 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 2024a). The Project footprint is not located in any California Essential Habitat Connectivity habitat classifications. The nearest landscape blocks are located to the east in and around Mission Peak Regional Preserve. Although it has not been identified by CDFW as an essential habitat connectivity link, the Cushing Parkway Bridge spans an important east–west movement corridor for rare wildlife species that occur at Don Edwards NWR. The Project is proposed in the causeway's immediate vicinity.

The high degree of residential, commercial, and industrial development in the study area substantially fragments natural habitat areas. As a result, wildlife corridors are limited throughout the study area along streams and South San Francisco Bay salt marsh fringe. Creeks and rivers intersected by the Project's transmission lines would likely be used by wildlife in the area. Additionally, road overcrossings have the potential to provide bat roosting habitat. Riparian habitats provide movement corridors for native mammals such as Columbian black-tailed deer, raccoon, and western gray squirrel. Riparian habitats also provide corridors for bird dispersal, breeding grounds, overwintering, and migration stopover sites (Riparian Habitat Joint Venture 2004). Additionally, salt ponds and water treatment ponds provide overwintering and migration stopover habitat for birds migrating along the Pacific Flyway. The salt marsh fringe around South San Francisco Bay is relatively contiguous and offers opportunities for wildlife to move through this habitat.

3.4.3 Regulatory Setting

3.4.3.1 Federal Laws and Regulations

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, even if unintentional or accidental. 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 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. The issuance of an incidental take permit (ITP) requires USFWS or NMFS to conduct an internal Section 7(a)(2) consultation. For projects that may result in the incidental take of threatened or endangered species or critical habitat but lack a federal nexus, a Section 10(a)(1)(b) ITP can be obtained from USFWS or NMFS by developing a habitat conservation plan (HCP) for their approval.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) (16 USC 703 et seq.) is the domestic law that protects migratory birds. The MBTA states that, it is unlawful to pursue, hunt, take, capture, or kill any migratory bird without a permit issued by the U.S. Department of the Interior, unless permitted by regulations. The law also prohibits 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. Whether *incidental take* is barred under the MBTA has been debated on the federal level. However, CDFW advised in 2018 that California law prohibits the incidental take of migratory birds (CDFW 2018a). 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. The 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." Under the law, inactive nests belonging to either species are protected.

Clean Water Act

Waters of the United States 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. Section 401 of the Clean Water Act is administered by the State of California under the Porter-Cologne Water Quality Control Act.

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 threatened or endangered species list. Unlike the FESA provision, species that are candidates for state listing are granted the same protections as species listed under CESA.

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. 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 law.

California Fish and Game Code

Section 1600

CDFW regulates streambeds, their banks, and associated riparian habitat under California Fish and Game Code Section 1600. Jurisdictional areas are delineated by the outer edge of riparian vegetation or the top of the bank of streams or lakes. A project that alters streambeds, banks, or riparian habitats requires issuance of a Lake and Streambed Alteration Agreement (Section 1602) from CDFW.

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 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. No take permits may be issued for fully protected species except for scientific research.

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.

Porter-Cologne Water Quality Control Act (Clean Water Act Section 401)

The State Water Resources Control Board and San Francisco Bay Regional Water Quality Control Board (RWQCB) 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 San Francisco Bay RWQCB's water quality control plan and authorize impacts on waters of the state by issuing waste discharge requirements under Section 401 of the Clean Water Act.

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. Areas within San Francisco Bay and within 100 feet of its shoreline, from the extent of wetland vegetation, generally fall within BCDC's jurisdictional purview. BCDC was designated as the federal Coastal Zone Management Agency for San Francisco Bay under the federal Coastal Zone Management Act. Both laws aim to regulate development in coastal areas and protect their unique resources.

Native Plant Protection Act

The Native Plant Protection Act (California Fish and Game Code Sections 1900–1913) requires all state agencies to use their authority to implement programs to conserve rare, threatened, or endangered native plants. The law prohibits the taking of endangered or rare plants and requires that CDFW be notified at least 10 days before any change in land use in areas that support listed plants.

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.

City of Fremont General Plan

The City of Fremont General Plan (City of Fremont 2011) includes the following goals and policies related to biological resources that pertain to the Project:

Goal 7-1: Biological Resources. A thriving natural environment with protected habitat that enhances the biological value of the City and preserves the open space frame.

Policy 7-1.1: Preservation of Natural Habitat. Preserve and protect fish, wildlife, and plant species and their habitats including wetlands, creeks, lakes, ponds, saltwater bodies, and other riparian areas. Maintain these areas for their critical biological values and to help improve water quality.

Policy 7-1.2: Protection of Species. Preserve and protect rare, threatened, endangered, and candidate species and their habitats consistent with State and Federal law.

Policy 7-1.5: Promotion of Interagency Coordination. Promote interagency coordination for the protection and preservation of biological resources.

Policy 7-1.7: Mitigate Development Impacts. Mitigate the impacts of development on the natural environment to the extent possible through sound planning, design, and management of development projects.

Policy 7-1.8: Urban Forest. Promote and protect the City's urban forest and maintain healthy tree resources within the City.

Goal 7-2: Water Resources. A protected water resource system that offers natural habitat and enhances the biological value of the City.

Policy 7-2.1: Preservation of Water Resources. Water resources such as the Niles Cone Groundwater Basin, wetlands, flood plains, recharge zones, riparian areas, open space, and native habitats should be identified, preserved and restored as valued assets for flood protection, water quality improvement, groundwater recharge, habitat, and overall long term water resource sustainability.

Goal 7-3: Water Quality. High quality water protected from pollutants and managed to improve the quality of the San Francisco Bay and groundwater resources.

Policy 7-3.1: Protect and Improve Water Quality. Protect and improve water quality in all Fremont's creeks, streams, water courses, and water bodies.

City of Fremont Municipal Code

City of Fremont Municipal Code Section 12.30.070, Maintenance of Street Trees and Sidewalks, provides a regulation governing the removal of street trees. Section 18.215.040 prohibits removal of or damage to private or landmark trees. Section 12.30.080 outlines the criteria for obtaining a removal permit, which applies to the nonemergency removal of street trees. Replacement with a 24-inch container tree is typically required for issuance of a tree removal permit. In accordance with the Municipal Code, only an approved city of Fremont tree contractor can apply for a tree permit and perform maintenance on, remove, or replace street trees (City of Fremont 2024).

City of Milpitas General Plan

The City of Milpitas General Plan (City of Milpitas 2021) includes the following goals and policies related to biological resources that pertain to the Project:

Goal CON-2: Protect and enhance native trees and vegetation throughout the City.

***Policy CON 2-1*:** Conserve existing native trees and vegetation where possible and integrate regionally native trees and plant species into development and infrastructure projects where appropriate.

***Policy CON 2-3*:** Avoid removal of large, mature trees that provide wildlife habitat, visual screening, or contribute to the visual quality of the environment through appropriate project design and building siting. If full avoidance is not possible, prioritize planting of replacement trees on-site over off-site locations. Replacement trees for high-quality mature trees should generally be of like kind, and provide for comparable habitat functionality, where appropriate site conditions exist.

***Policy CON 2-5*:** Facilitate the preservation of existing trees, the planting of additional street trees, and the replanting of trees lost through disease, new construction, or by other means.

***Policy CON 2-7*:** Facilitate planting and retention of street trees in landscaped street medians and along City streets.

Goal CON-3: Protect and maintain waterways and other sensitive habitat for plant and animal species throughout Milpitas and to protect the health of the San Francisco Bay.

***Policy CON 3-1*:** Preserve and enhance biological communities that contribute to Milpitas' and the region's biodiversity including, but not limited to, wetlands, riparian areas, and aquatic habitat.

***Policy CON 3-2*:** Preserve and enhance the aesthetic and habitat value of riparian corridors including, but not limited to Coyote, Berryessa, and Penitencia Creeks.

***Policy CON 3-3*:** Limit the disturbance of natural water bodies and drainage systems in Milpitas by conserving natural open space areas, protecting channels, and minimizing the impacts and pollutants from stormwater and urban runoff.

***Policy CON 3-5*:** Work with the Santa Clara Valley Water District (SCVWD or "Valley Water") to preserve wetlands, riparian corridors, and buffer zones in Milpitas by continuing to require that new development follow the "Guidelines and Standards for Land Use Near Streams" to protect streams and riparian habitats. Encourage the use of Green Stormwater Infrastructure such as water quality wetlands, bioretention swales, watershed-scale retrofits, and other low-impact development techniques, etc., consistent with the City's Green Stormwater Infrastructure Plan and where such measures are likely to be effective and technically and economically feasible.

City of Milpitas Municipal Code

City of Milpitas Municipal Code Ordinance 201.5, Section 7, states that a permit is required to remove a protected tree of defined size on various property types. A permit is required to remove a protected tree on residential commercial/industrial, zoning/subdivision, and vacant lots. Additionally, trees planted in the public right-of-way and tree planting easements must conform to the city of Milpitas's street tree planting standard detail. Street trees are located in the public right-of-way between the curb and sidewalk. The Milpitas Public Works Department is responsible for removing and pruning street trees. A service request must be submitted to the City of Milpitas Public Works Department to prune or remove a City street tree (City of Milpitas 2024).

City of San José General Plan

The City of San José General Plan (City of San José 2024a) includes the following goals and policies related to biological resources that pertain 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 alternative 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), landscaping plantings shall incorporate tree species native to the area and propagated 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 Coastal 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 woodlands, chaparral, and coastal scrub during development and grading for project 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 nonnative 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.

City of San José Municipal Code

Street trees are located in the public right-of-way between the curb and sidewalk, which can extend up to 12 feet from the curb in some locations. The City of San José Department of Transportation issues permits for pruning and oversees the removal of street trees. Pruning or removing a street tree without a permit is illegal (City of San José 2024b).

City of Santa Clara General Plan

The City of Santa Clara General Plan (City of Santa Clara 2010) includes the following goals and policies related to biological resources that pertain to the Project:

***Policy 5.3.1-P10*:** Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.

Goal 5.10.1-G1: The protection of fish, wildlife, and their habitats, including rare and endangered species.

Goal 5.10.1-G2: Conservation and restoration of riparian vegetation and habitat.

***Policy 5.10.1-P1*:** Require environmental review prior to approval of any development with the potential to degrade the habitat of any threatened or endangered species.

***Policy 5.10.1-P2*:** Work with Santa Clara Valley Water District and require that new development follow the "Guidelines and Standards for Lands Near Streams" to protect streams and riparian habitats.

***Policy 5.10.1-P4*:** Protect all healthy cedars, redwoods, oaks, olives, bay laurel, and pepper trees of any size, and all other trees over 36 inches in circumference measured from 48 inches above-grade on private and public property as well as in the public right-of-way.

***Policy 5.10.1-P5*:** Encourage enhancement of land adjacent to creeks in order to foster the reinstatement of natural riparian corridors where possible.

***Policy 5.10.1-P11*:** Require use of native plants and wildlife-compatible non-native plants, when feasible, for landscaping on City property.

***Policy 5.10.1-P12*:** Encourage property owners and landscapers to use native plants and wildlife-compatible non-native plants, when feasible.

***Policy 5.10.4-P5*:** Prohibit new development that would reduce water quality below acceptable State and local standards.

City of Santa Clara Municipal Code

The City of Santa Clara Municipal Code Section 12.35.050 provides the following policies related to city tree planting, maintenance, and removal that pertain to the Project (City of Santa Clara 2023):

(a) No person shall plant or cause to be planted any tree or plant in a public place, apart from park strip landscaping as indicated in Santa Clara City Code (SCCC) 12.35.060.

(b) The City shall have jurisdiction and control of the planting and placement of all city trees, and shall have supervision, direction, and control of the structural pruning of the canopy, removal determination, relocation, and replacement thereof. Planting and maintenance shall conform to American National Standards Institute (ANSI) A300 standards and follow all tree care best management practices published by International Society of Arboriculture (ISA).

(c) Property owners are responsible for watering city trees within their property, clearing the sidewalk of city tree debris, and removing all debris associated with the normal growth cycle of city trees including, but not limited to, fallen leaves and needles, small fallen branches, fruit debris, and seeds.

(d) Property owners are responsible for notifying the City of hazardous or damaged city trees within their property, and in the park strip in front of their property.

(e) The City shall maintain criteria for evaluating city tree removals that may be updated from time to time.

(h) The City may authorize the pruning or removal of a city tree by a property owner, at the property owner's own expense, if the removal or pruning meets the established criteria but has been deemed a lower priority for action by the City. The City's authorization of such action by a property owner is conditioned upon the property owner first obtaining a permit from the City. All pruning and removal work must conform to ANSI A300 standards and follow all tree care best management practices published by ISA.

(i) If a vacant site where a street tree was removed is suitable to support a new street tree, the site shall be replanted with a suitable tree species from the City tree list. (Ord. 2036 § 2, 12-7-21).

Habitat Conservation Plans

The Project lies within the jurisdictions of PG&E's San Francisco Bay Area Operations and Maintenance Habitat Conservation Plan (Bay Area O&M HCP) (PG&E 2017), the Santa Clara Valley HCP (Santa Clara Valley Habitat Agency 2012), and the Don Edwards NWR Comprehensive Conservation Plan (CCP) (USFWS 2012).

PG&E's San Francisco Bay Area Operations and Maintenance Habitat Conservation Plan

PG&E's Bay Area O&M HCP covers 18 wildlife and 13 plant species. The plan aims to allow PG&E to continue current and future O&M activities within the nine counties of the San Francisco Bay Area while avoiding, minimizing, and mitigating temporary and permanent impacts on the habitats of threatened and endangered species (PG&E 2017). The PG&E property at the PG&E Newark 230 kV Substation would be subject to the Bay Area O&M HCP, and PG&E field protocols (FPs) are derived from HCP conservation measures.

Santa Clara Valley Habitat Conservation Plan

The cities of Gilroy, Morgan Hill, and San José, along with Santa Clara County, the Santa Clara Valley Transportation Authority, and the Santa Clara Valley Water District, collaborated with USFWS and CDFW to develop and implement 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, covering two-thirds of southern Santa Clara County. The Santa Clara Valley HCP is a long-range plan designed to protect and enhance ecological diversity and function while accommodating planned development and growth. This HCP establishes a framework for protecting 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 aims to provide environmental benefits by creating larger, more ecologically valuable habitat reserves than the fragmented habitats resulting from individual mitigating projects.

The Project area is partially located in 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). 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.

Although the Santa Clara Valley HCP covers public and private utility activities, coverage of the Project has not been confirmed. LSPGC would confirm whether the Project is covered by the Santa Clara Valley HCP to opt in and be covered by this HCP (LSPGC 2025).

Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan

The USFWS National Wildlife Refuge System develops Comprehensive Conservation Plans that outline refuge-specific programs for conserving natural resources, stewarding wildlife habitat, and engaging the community in conservation efforts. The Don Edwards NWR CCP and accompanying Environmental Assessment have guided refuge management for 15 years, addressing legal mandates, policies, goals, and National Environmental Policy Act compliance. As discussed therein, refuges are guided by the purposes of the individual refuge, the mission and goals of the refuge system, USFWS policy, laws, executive orders, treaties, interstate compacts, and policies pertaining to the conservation and protection of natural and cultural resources.

Goals, objectives, and strategies outlined in the Don Edwards NWR CCP aim to protect and restore the refuge's tidal marsh, mudflat, open bay, vernal pool, grassland, and upland habitats, providing habitat for protected and sensitive species. The objectives provide implementation measures to achieve the CCP's goals to protect and contribute to the recovery of species; conserve, enhance, and create habitats to support migratory birds and native flora and fauna; and increase community stewardship and environmental education. Portions of the Project would be constructed and operated adjacent to the Don Edwards NWR. However, the Don Edwards NWR CCP does not provide regulations or take authorization for private development or utility infrastructure projects.

3.4.4 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the project by LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.4.4.1 LSPGC Applicant-Proposed Measures

Applicant-proposed measures (APMs) have been identified by LSPGC to minimize or avoid Project impacts related to biological resources. The impact analysis assumes that the APMs would be implemented by LSPGC as part of their portion of work for the Project.

- **APM BIO-1**: **Restoration of Disturbed Areas**. Once construction is complete in a given area, natural vegetation areas (annual grassland, annual grassland/wetland, riparian, wetland, and vernal pools) 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 [stormwater pollution prevention plan] 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 following standard guidelines shall be conducted within suitable habitat areas for special-status plants that may occur within the Project impact areas during the appropriate blooming period to determine the location and extent of populations of rare plants, if present. In the event of the discovery of a rare 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 for ITP, as required. There are no CDFW-listed species that were analyzed, but CNPS species would require surveys and potential mitigation if they cannot be avoided. 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 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 take ITP or other authorization as well as any additional mitigation. 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. These surveys will be conducted within 30 days of the start of construction activities and after protocol surveys for individual species have been conducted. These surveys serve to doublecheck populations, nesting/breeding areas, and sensitive habitats that would be identified during protocol surveys and to ensure that these areas will be avoided by construction activities.

- **APM BIO-4**: **Sensitive Area Demarcation**. All sensitive biological areas (including creeks, rivers, wetlands, vernal pools, 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 [miles per hour], 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.

- **APM BIO-7**: **Salt Marsh Harvest Mouse (SMHM) Surveys**. Protocol surveys following standard guidelines shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for salt marsh harvest mouse (SMHM) by an approved biologist. In the event of the discovery of SMHM 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 prior to construction activity. Any other construction activities that may impact SMHM 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 live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to SMHM, such as allowing individuals to leave on their own or temporarily halting construction in areas where SMHM is present. All adjacent known SMHM preserve areas shall be clearly marked as well and avoided. This APM would be applied along the transmission line west of the proposed alignment in the vicinity of Coyote Creek Lagoon.

- **APM BIO-8**: **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-9**: **Worker Environmental Awareness (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-10**: **Outdoor Lighting Measures**. The use of outdoor lighting during construction and O&M shall be minimized whenever practicable. All lighting shall be selectively placed, shielded, and directed downward to the extent practicable. All lighting near sensitive species habitat shall be directed away from these areas 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 Proposed Project. The most likely areas for nighttime construction are within commercial and industrial areas and not residential or potentially sensitive biological areas. Night work is not anticipated during O&M except during emergencies.

- **APM BIO-11**: **Special-Status Bird Surveys**. Protocol surveys following standard guidelines shall be conducted for California black rail, tricolored blackbird, California clapper rail,[1] burrowing owl, golden eagle, and bald eagle and focused surveys shall be conducted for western snowy plover, white-tailed kite, 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 and burrowing owl are covered species under the Santa Clara Valley HCP; if impacts are identified during species-specific protocol 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 protocol surveys for the other State-listed avian species that are not covered under the Santa Clara Valley HCP (California black rail, California clapper rail,[1] Western snowy plover, bald eagle, and any other avian 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-12**: **Nesting Bird Protection Measures**. If feasible, LSPGC shall avoid certain construction activities such as vegetation trimming/removal during the migratory bird nesting or breeding season. When it is not feasible to avoid construction during the nesting or breeding season (generally February 15–August 31), APM BIO-15 shall be used. Any 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-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.

[1] California clapper rail has been renamed the Ridgway's rail.

- **APM BIO-14**: **Golden Eagle Protection**. The USFWS recommends a one mile no disturbance buffer around active nests during the active nesting season (USFWS 2021). LSPGC shall conduct an eagle nest survey within suitable nesting habitat prior to construction. If preconstruction surveys determine that there is an active golden eagle nest within the Survey Area, LSPGC shall consult with the agencies to identify an appropriate disturbance buffer based on existing conditions, including existing visual barriers, existing noise levels, existing high levels of human activity and vehicle traffic, and other factors. In lieu of placing an avoidance buffer, LSPGC could construct a barrier wall, outside of the nesting season, to obstruct construction activities from line of site from the nest. The barrier would also dampen noise from construction activities. A full-time biological monitor shall monitor the bird(s) for signs of distress. If signs of distress are identified, the biological monitor shall require construction to cease until the birds exhibits normal behavior.

- **APM BIO-15**: **Nesting Bird Surveys**. Preconstruction nest surveys shall be conducted during the nesting or breeding season (generally February 15–August 31) within all proposed impact areas and suitable buffers within suitable habitat areas for Migratory Bird Treaty Act (MBTA)-protected birds. 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 avoidance buffer shall be implemented to ensure that the nesting or breeding activities are not affected. If the nesting or breeding activities by a Federal- or State-listed species are observed, LSPGC shall consult with the USFWS and CDFW as necessary. Monitoring of the nest shall continue until the birds have fledged or construction is no longer occurring on the site.

- **APM BIO-16**: **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 vernal pool tadpole shrimp, vernal pool fairy shrimp, 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. If impacts are identified during species-specific surveys for vernal pool tadpole shrimp, vernal pool fairy shrimp, monarch butterfly, Western bumblebee, or Crotch's bumblebee which are not covered under the Santa Clara Valley HCP, the take shall be covered under a Federal ITP (vernal pool tadpole shrimp; Federally Endangered, vernal pool fairy shrimp; Federally Threatened, monarch butterfly; Federal candidate species) or State ITP (Western bumblebee and 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-17**: **Wetland, Vernal Pool, and Waterway Construction Timing Restrictions**. Construction in the vicinity of waterways, wetlands, and vernal pools such as along the Cushing Parkway bridge that borders the Don Edwards NWR, near vernal pools north of the existing PG&E Newark substation, and in the vicinity of Coyote Creek and Guadalupe River shall be restricted to occur during the dry season (generally from May 1st through October 15th) to the maximum extent possible. This would minimize the chance of encountering and impacting sensitive species such as vernal pool tadpole shrimp and California tiger

salamander that can be found in annual grassland/wetland, wetland, and vernal pool habitat present in these areas as well as fish species such as steelhead, longfin smelt, and green sturgeon that could be using waterways. If construction cannot be conducted during the dry season in the vicinity of waterways, wetlands, and vernal pools, they would be clearly marked and avoided to the maximum extent possible and biological monitors would be present to ensure that no impacts occur.

- **APM BIO-18**: **Special-Status Amphibian Surveys**. Protocol surveys shall be conducted for California tiger salamander and California red-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 and California red-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. California tiger salamander and California red-legged frog are 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. 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.

- **APM BIO-19**: **Wetland and Aquatic Resources Delineations**. Pursuant to property owner approval, a wetland and aquatic resources delineation will be conducted for the portion of the proposed Newark to NRS 230 kV AC transmission line within Caltrans [California Department of Transportation] ROW [right-of-way] containing potentially State or Federal jurisdictional waters. Accurate acreages of vernal pools and RWQCB, CDFW, and USACE jurisdictional waters will be defined from these delineations. Vernal pools and jurisdictional waters shall be marked as a sensitive area and shall be avoided to the extent practicable. If these areas cannot be avoided, applicable permits shall be obtained.

3.4.4.2 PG&E Best Management Practices and Field Protocols

PG&E would be responsible for implementing best management practices (BMPs) and field protocols (FPs) related to biological resources, derived from the Bay Area O&M HCP (PG&E 2017). The impact analysis assumes that the following BMPs and FPs would be implemented by PG&E as part of their portion of work for the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation).

- **PG&E BMP BIO-1: 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-2: 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.

- **PG-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 the 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 [California Department of Forestry and Fire Protection], 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 6 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.

3.4.4.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to biological resources within SVP's portion of the Project.

3.4.5 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, the Project would result in a significant biological resources impact 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

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 Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The CPUC has identified additional CEQA impact criteria that are specific to the types of projects it evaluates, which should 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 biological resources impact if it would do the following:

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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Impact 3.4-1: 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. (*Less than Significant with Mitigation*)

The following special-status plant and wildlife species were identified as having moderate or high potential to occur within the Project area (Appendix D) and could be affected by construction:

PLANTS		
• Alkali milk vetch	• Brittlescale	• Lesser saltscale
• Congdon's tarplant	• Point Reyes salty bird's-beak	• Hoover's button-celery
• San Joaquin spearscale	• Contra Costa goldfields	• prostrate vernal pool navarretia
• long-styled sand-spurrey	• California alkali grass	• Saline clover

ANIMALS		
Invertebrates		
• Crotch's bumble bee • Vernal pool tadpole shrimp	• Large marble butterfly	• Western bumble bee
Fish		
• Green sturgeon	• Steelhead	• Longfin smelt
Reptiles and Amphibians		
• Northwestern pond turtle	• California tiger salamander	• California red-legged frog
Birds		
• Golden eagle • Northern harrier • Bald eagle • California Ridgway's rail	• Burrowing owl • White-tailed kite • California black rail • Black skimmer	• San Francisco (=saltmarsh) common yellowthroat • Alameda song sparrow
Mammals		
• Salt marsh harvest mouse		
SOURCES: CDFW 2024; CNPS 2024; USFWS 2024		

Construction

The Project would result in approximately 14.13 acres of permanent disturbance and 214.01 acres of temporary disturbance because of the transmission line alignment features, including the PG&E Newark 230 kV Substation and SVP NRS 230 kV Substation. The permanent and temporary impacts associated with the proposed substation work, transmission line alignments, and staging areas are broken down by habitat type in **Table 3.4-4**, *Impacts on Vegetation Communities*. The potential effects of Project construction on special-status species are discussed below by species group.

TABLE 3.4-4
IMPACTS ON VEGETATION COMMUNITIES

Vegetation Type	Impact Acreage	
	Permanent	**Temporary**
Open Water (Wastewater Treatment Pond)	0.02	6.70
Wetland	—	0.54
Riparian	0.005	0.12
Annual Grassland	0.05	79.85
Disturbed	14.05	126.9
Total	**14.125**	**214.11**
SOURCE: Data compiled by Environmental Science Associates, 2025.		

Effects on Special-Status Plants

Twelve special-status plant species have moderate to high potential to occur within the study area, but none are expected to occur within the temporary or permanent impact areas. As identified in Section 3.4.2, *Special-Status Species*, most of these plants are associated with wetland, riparian, vernal pool, or estuary habitats. However, Congdon's tarplant, lesser saltscale, San Joaquin spearscale, Contra Costa goldfields, and saline clover may also occur in grasslands.

Construction may affect small portions of Coyote Creek and its associated riparian habitat, as well as a small portion of the Guadalupe River and associated riparian habitat north of the SR 237 overpass.

Focused surveys have not been conducted to demonstrate the absence of special-status plants from areas that may support such species. If these special-status plants are present within or immediately outside the Project area, direct impacts include the destruction of individuals or groups of plants within the immediate Project footprint. Indirect impacts include the degradation of habitat for special-status plants outside of the disturbance area and the introduction of non-native weed species. Table 3.4-4 lists the total area of temporary and permanent impact by vegetation community associated with the Project's implementation. Within the region, rare plants are associated primarily with riparian, wetland, floodplain, vernal pool, and treatment pond habitats, and grassland that is not heavily disturbed.

Additionally, grassland habitat associated with the Don Edwards NWR alongside Cushing Parkway would be mowed and directly affected during construction. The extent of the habitat impact at the Cushing Parkway Bridge would depend on whether the transmission line alignment is attached to the underside of the bridge or trenched adjacent to the bridge within the 10-foot utility easement. In either case, the Project would result in temporary impacts on this area within the easement. Although rare plant species are unlikely in this disturbed area, focused rare plant surveys would be conducted in all potentially affected areas during appropriate blooming periods for each species (**APM BIO-2: Rare Plant Surveys**). If rare plants are found, populations would be avoided to the extent practicable (APM BIO-2 and **APM BIO-4: Sensitive Area Demarcation**). To limit the potential spread of noxious weeds, vehicles would be cleaned before arrival on-site and before any work in native habitats (**APM BIO-5: Vehicle Cleaning Prior to Entering Natural Areas**). If rare plants are detected and cannot be avoided, including within the Don Edwards NWR along Cushing Parkway, USFWS or CDFW would be consulted for further mitigation steps, as stated in APM BIO-2. In addition, in the event rare plants are discovered in the work area, **Mitigation Measure 3.4-1a: Avoid Impacts to Rare Plants** would be implemented to ensure their protection or relocation. Therefore, after implementation of LSPGC APMs and Mitigation Measure 3.4-1a, direct and indirect impacts on special-status plant species would be reduced to a **less-than-significant** level.

Mitigation: Implement Mitigation Measure 3.4-1a.

Mitigation Measure 3.4-1a: 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 between April and July in accordance with CDFW protocol and 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 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 LSPGC project manager shall be notified at least 14 days prior to construction in that area. Impacts on these known occurrences shall be avoided when feasible. LSPGC shall coordinate with CDFW and/or USFWS staff to establish appropriate avoidance and minimization measures, depending on whether the species is federally and/or state listed, and shall consult with CDFW and/or USFWS to obtain an ITP as required for any impacts that cannot be avoided. Avoidance and minimization measures may include, but need not be limited to:

(1) No-disturbance buffers.

(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 the LSPGC APMs and Mitigation Measure 3.4-1a would ensure that impacts to rare plants would be reduced to a less-than-significant level.

Critical Habitat

USFWS-designated critical habitat for the federally listed endangered plant Contra Costa goldfields and the federally listed endangered invertebrate vernal pool tadpole shrimp could be directly affected in Don Edwards NWR along Cushing Parkway, where a mapped section of designated critical habitat extends. This area would be directly affected alongside the Cushing Parkway Bridge, but all construction impacts would be within the existing 10-foot utility easement next to the bridge. Focused rare-plant surveys during the appropriate blooming period (APM BIO-2 and Mitigation Measure 3.4-1a), invertebrate surveys (**APM BIO-16: Special-Status Invertebrate Surveys**), and preconstruction sweeps (**APM BIO-3: Preconstruction Sweeps**) would be conducted for these species, and qualified biological monitors would be present during construction activities (APM BIO-16). All wetlands and other aquatic resources, including vernal pools, would be delineated (**APM BIO-19: Wetland and Aquatic Resources Delineations**). LSPGC would also implement **Mitigation Measure 3.4-1b: Habitat Restoration and Monitoring**, which details ecological monitoring and reporting requirements for the Habitat Restoration Plan to be approved by CDFW, impacts on riparian habitat, wetlands, and other sensitive natural communities.

Construction activities near wetlands and waterways would be restricted to the dry season to the maximum extent practicable, reducing the potential for impacts on vernal pools potentially occupied by vernal pool tadpole shrimp (**APM BIO-17: Wetland, Vernal Pool, and Waterway Construction Timing Restrictions**). In addition, **Mitigation Measure 3.4-1c: Frac-out Plan**

would be implemented to ensure preparation of a frac-out plan prior to construction to prevent and address potential inadvertent frac-outs.

Construction vehicle movement would avoid sensitive habitat to the maximum extent possible, and LSPGC would coordinate with USFWS and other applicable agencies to determine whether permits would be required for potential impacts to special-status invertebrates or amphibians (APM BIO-16 and APM BIO-18). In addition, **Mitigation Measure 3.4-1d: Protection of Special-status Wildlife** would be implemented to ensure that preconstruction clearance surveys are conducted by a qualified biologist within 7 days of the start of construction activities.

Critical habitat for steelhead is located along Coyote Creek and the Guadalupe River; habitat for green sturgeon occurs within Coyote Creek and San Tomas Aquino Creek, in the Guadalupe River near Coyote Creek Lagoon, in a drainage that passes under Fremont Boulevard, along a tributary to Coyote Creek that passes under Cushing Parkway just east of Fremont Boulevard, and in estuary areas associated with San Francisco Bay. Longfin smelt are also known to use Coyote Creek and may use the Guadalupe River for breeding. The transmission line alignment would be bored underneath several of these critical habitat areas using horizontal directional drilling to minimize impacts on critical habitat. Construction activities would take place near NMFS-designated critical habitat for steelhead and green sturgeon along the main branch of Coyote Creek.

Although impacts on streams that are also NMFS-designated critical habitat for California coast steelhead would be minimized, LSPGC also plans to drill underneath several of these critical habitat areas, such as the Guadalupe River, Coyote Creek, and several unnamed streams in Coyote Creek's vicinity, which would lessen the risk of potential impacts to waterways compared to crossing the waterway overhead. Further, if sensitive species are identified during any preconstruction surveys or during the planning process, permits and consultations with USFWS and NMFS would be required to address potential impacts on steelhead, green sturgeon, and their designated critical habitats. Therefore, with application of LSPGC APMs, mitigation measures, and as-needed consultation, direct and indirect impacts on critical habitat would be mitigated to **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.4-1a, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, and Mitigation Measure 3.4-1d.
>
> **Mitigation Measure 3.4-1b: Habitat Restoration and Monitoring**
>
> Before construction, the applicant shall obtain all required environmental permits, including a Clean Water Act Section 401 water quality certification for federal and state jurisdictional wetlands, Clean Water Act Section 404 permits for federal jurisdictional, and a CDFW Lake and Streambed Alteration Agreement, and shall adhere to the conditions of each.
>
> At least 30 days before the scheduled commencement of Project activities, the applicant shall submit a Restoration Plan to CDFW and the CPUC for review and written approval. No Project activities shall commence until the Restoration Plan is approved by CDFW in writing. The plan shall detail compensatory mitigation for permanent impacts to riparian and wetland habitat in the form of restoration or enhancement of habitat either on-site (where practicable) or off-site as close to the Project site as practicable. The plan shall also describe the on-site restoration of temporary impacts to riparian and wetland habitat.

The Restoration Plan shall also include monitoring and success criteria. Impacts to riparian and wetland habitat shall be restored or otherwise mitigated according to the Restoration Plan within the same calendar year as the impact occurs 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 replanting native vegetation removed before or during construction, and 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, all plants shall be monitored and maintained as necessary for a minimum of 5 years. LSPGC shall submit an annual monitoring report to the CPUC and CDFW during each year of revegetation.
- The revegetation shall be considered successful when, after at least 5 years of monitoring (including at least 3 years without supplemental irrigation), each category of plantings (e.g., herbs, shrubs) has a minimum of 85 percent survival, and restoration areas have attained a relative native cover of 70 percent after 3 years and 75 percent after 5 years, unless 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 the cover success criteria alone may be sufficient if determined in writing by CDFW.

Mitigation Measure 3.4-1c: Frac-out Plan

To avoid potential indirect impacts to aquatic resources and associated habitats during horizontal boring or horizontal directional drilling (i.e., trenchless techniques) using pressurized drilling fluids, LSPGC or its contractors shall prepare and submit a Frac-out Plan to the CPUC for preventing and addressing potential inadvertent frac-outs. The Frac-out Plan shall specify when a biological monitor will be present during the trenchless technique process, and shall limit work associated with trenchless waterway crossings to daylight hours to enable identification of potential frac-outs and/or potential impacts to sensitive species should a frac-out occur. The Frac-out Plan shall also establish communication protocols and training information for construction personnel, the response materials to be available on site to minimize frac-out effects, and effective responses to potential releases of drilling fluids used during the trenchless technique process. LSPGC's Frac-out Plan shall be submitted to the CPUC 30 days before the start of construction.

Mitigation Measure 3.4-1d: Protection of Special-status Wildlife

A qualified biologist shall conduct preconstruction clearance surveys within 7 days prior to the start of construction activities within suitable habitat for special-status species that are known to be present or have a moderate to high potential to occur. In addition to the preconstruction clearance surveys, a qualified biologist shall also 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, and maintain barriers protecting sensitive habitat areas. The biologist shall ensure that mats are placed for unavoidable equipment passage across sensitive habitats, including vernal pools.

If a special-status species is observed in a work area, the qualified biologist shall mark the area 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 until other protective action can be taken as authorized by the Santa Clara Valley HCP or a species-specific ITP, in coordination with USFWS and/or CDFW.

Significance after Mitigation: With the implementation of the LSPGC APMs, Mitigation Measure 3.4-1a, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, and Mitigation Measure 3.4-1d, impacts on critical habitat would be reduced to a less-than-significant level.

Effects on Special-status Wildlife

Invertebrates

Direct construction-period impacts on special-status invertebrate species (e.g., Crotch's bumblebee, Western bumblebee, and vernal pool tadpole shrimp, as well as large marble butterfly if it is listed or proposed for listing) could include vehicle strikes or crushing, removal of suitable flowering vegetation for butterflies and bees during construction and vegetation clearing, and the permanent loss of approximately 0.05 acre of annual grassland (Table 3.4-4). Vernal pool tadpole shrimp occur in the Don Edwards NWR in the immediate vicinity of Cushing Parkway (CDFW 2024a). Additionally, the area within the PG&E property north of the PG&E Newark 230 kV Substation fence, where an overhead structure is proposed, consists of annual grasslands and vernal pools that house potential habitat for vernal pool tadpole shrimp. Occurrences of vernal pool tadpole shrimp are also mapped near the existing PG&E Newark 230 kV Substation (CDFW 2024a).

Approximately 0.05 acre of potentially suitable habitat for rare bumblebees, vernal pool tadpole shrimp, and large marble butterfly in grasslands habitat would be permanently affected. Temporary habitat impacts, as summarized in Table 3.4-4, would be minimized to the maximum extent practicable through implementation of APM BIO-4, and habitat would be restored after construction (**APM BIO-1: Restoration of Disturbed Areas**). Suitable habitats for invertebrate species would be refined through protocol-level surveys conducted during the appropriate time periods for tadpole shrimp, bumblebees, and butterflies (APM BIO-4, APM BIO-16, and APM BIO-19). LSPGC would also implement Mitigation Measure 3.4-1b, as described above.

Additionally, APM BIO-17 would be implemented to restrict work to the dry season to protect vernal pool tadpole shrimp. LSGPC would also implement Mitigation Measure 3.4-1c to address the potential occurrence of a frac-out in these areas. Protocol surveys and preconstruction sweeps (APM BIO-3 and APM BIO-16) would identify any vernal pools, host plants, butterfly roosting sites, and bumblebee nests, which would then be clearly marked for avoidance during construction activities, as necessary (APM BIO-4 and APM BIO-16). If these areas cannot be avoided, USFWS or CDFW would be consulted, depending on species. A qualified biological monitor would be present during all construction activities in habitat for special-status invertebrates (APM BIO-16). Throughout construction, vehicles would stay within designated

work areas, and the speed limit on access roads would be 15 mph (**APM BIO-6: Vehicle Speed Limits**), which would reduce indirect impacts on off-site special-status plants by minimizing dust production.

Indirect impacts on special-status invertebrate species during construction could include decreased suitability of grassland habitat in the Project's vicinity caused by increased runoff, sedimentation, proliferation of invasive species, increased noise from construction activities and vehicles, and increased human activity. Worker Environmental Awareness Program (WEAP) training would be administered to all workers (**APM BIO-9: Worker Environmental Awareness [WEAP] Training**). In addition, LSPGC would also implement **Mitigation Measure 3.4-1e: Construction Worker Environmental Awareness Training Program**, which would supplement APM BIO-9 to ensure that a qualified biologist conducts pre-construction WEAP training for all personnel entering the Project site.

Additionally, a stormwater pollution prevention plan would be implemented for the Project, which would include measures such as erosion control wattles to reduce impacts from runoff and sedimentation, and PG&E FPs including the following would be implemented on PG&E property:

- **PG&E FP-1**: Worker training.
- **PG&E FP-2**: Park outside sensitive areas.
- **PG&E FP-3**: Use existing access roads.
- **PG&E FP-4**: Minimize impacts on biological resources.
- **PG&E FP-6**: Inspect pipes and culverts for species.
- **PG&E FP-7**: 15 mph speed limit.
- **PG&E FP-8**: No fires, litter, or pets.
- **PG&E FP-10**: Minimize activity footprint and time spent at a work location.
- **PG&E FP-11**: Erosion and sediment control BMPs.
- **PG&E FP-12**: Contain and cover stockpile soil.
- **PG&E FP-14**: Revegetate with "weed free" seed mix.
- **PG&E FP-15**: Refuel more than 250 feet from vernal pools and 100 feet from wetlands, streams, or waterways.
- **PG&E FP-16**: 250 feet buffer from vernal pools and 50 feet from wetlands, ponds, or riparian areas.

These measures would protect sensitive habitats from erosion and disturbance on PG&E property. In addition, Mitigation Measure 3.4-1d would be implemented for avoidance and minimization of harm to special-status invertebrates, if found onsite.

Should unavoidable impacts be identified during species-specific surveys for vernal pool tadpole shrimp, Western bumblebee, or Crotch's bumblebee, which are not covered under the Santa Clara Valley HCP, federal ITP coverage would be pursued for vernal pool tadpole shrimp, or state ITP coverage for Western bumblebee and Crotch's bumblebee, in consultation with CDFW or

USFWS (APM BIO-16). For these reasons, construction effects on invertebrates as it relates to this criterion would be mitigated to a **less-than-significant** level.

Mitigation: Implement Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.

Mitigation Measure 3.4-1e: Construction Worker Environmental Awareness Training Program (WEAP)

In addition to the requirements of APM BIO-9, LSPGC shall retain a qualified biologist to conduct pre-construction WEAP training for all personnel entering the Project site.

- All personnel associated with construction shall attend the WEAP training prior to initiation of construction activities (including, but not limited to, site preparation, staging and mobilization, vegetation clearance/mowing/trimming, grading, and excavation). The training shall include information about the special-status species potentially occurring within the work areas, identification of special-status species and their habitats, a description of the regulatory status and general ecological characteristics of special-status species, and a review of the limits of construction and measures required to avoid and/or minimize impacts to biological resources within the work area. A fact sheet conveying this information and pertinent Project contacts shall also be prepared for distribution to all contractors, their employees, and other personnel involved with construction.
- Interpretation shall be provided for non-English-speaking workers.
- The same instructions shall be provided for any new workers prior to entering the work area where sensitive species and/or sensitive species habitats may be present.
- All employees entering the work areas shall be required to sign a form provided by the qualified biologist(s) documenting they have attended the WEAP and understand the information presented to them. The signed form shall be provided to the Project Applicant as documentation of training completion. The crew foreman shall be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to special status species and other regulated biological resources. If new personnel are brought onto the work area after completion of the initial WEAP training, the training shall be conducted for all new personnel before they enter the work area where sensitive species and/or their habitats may be present.

Significance after Mitigation: With implementation of the LSPGC APMs and PG&E FPs derived from the O&M HCP and BMPs, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e, impacts on special-status invertebrate species would be reduced to a less-than-significant level.

Fish

Direct impacts on special-status fish species (e.g., steelhead, longfin smelt, and green sturgeon) are not likely because all planned Project construction impact areas are outside of waterways. However, some construction activities would either cross or occur in the vicinity of Coyote Creek, the Guadalupe River, Lower Penitencia Creek, Agua Caliente Creek, Mallard Slough, and other unnamed streams or drainage ditches that could be used by fish species. It is likely that LSPGC would drill underneath all creeks, rivers, and streams using horizontal directional drilling or jack-and-bore trenchless techniques. However, special-status fish species could be directly

affected by the occurrence of a frac-out (i.e., an unintentional release of drilling fluids, typically bentonite, to the ground surface) during drilling.

Potential direct impacts would be minimized by the implementation of APM BIO-1 (restoration), APM BIO-4 (demarcation of sensitive areas), and APM BIO-9 (WEAP training). LSPGC would also implement Mitigation Measure 3.4-1e, which would supplement APM BIO-9 to ensure that a qualified biologist conducts pre-construction WEAP training for all personnel entering the Project site. Sensitive areas for steelhead, longfin smelt, and green sturgeon (including Coyote Creek and the Guadalupe River in areas where construction activities are not planned) would be clearly marked and avoided to the extent practicable by construction activities (APM BIO-4 and Mitigation Measure 3.4-1d). Once construction activities are completed, all temporary impact areas would be restored to reduce impacts on habitats in the vicinity of the waterways (APM BIO-1 and Mitigation Measure 3.4-1b).

Finally, APM BIO-17 would restrict construction, including directional drilling, in the vicinity of waterways to the dry season from May 1 to October 15, when special-status fish are least likely to be present. If construction cannot be avoided at other times, sensitive aquatic areas would be marked and avoided and biological monitors would be present to ensure they were not impacted (APM BIO-17). Additionally, LSPGC would implement Mitigation Measure 3.4-1c, which would require LSPGC or its contractors to prepare and submit a frac-out plan to the CPUC to prevent and address potential inadvertent frac-outs.

Indirect impacts on steelhead, longfin smelt, and green sturgeon during construction could include decreased water quality and habitat suitability in the Project's vicinity caused by spills or leaks into waterways, increased noise and vibration from construction activities, and increased human activity. WEAP training would be administered to all workers (APM BIO-9 and Mitigation Measure 3.4-1e) to reduce the potential for water quality issues. Temporary impact areas within Coyote Creek's vicinity and other waterways would be restored after construction (APM BIO-1), and construction would be performed during the dry season (APM BIO-17) when the likelihood of special-status fish species to be using Coyote Creek or the Guadalupe River is low, reducing the potential for indirect impacts related to increased noise and human activity. After the implementation of LSPGC APMs and mitigation measures, impacts on special-status fish would be mitigated to a **less-than-significant** level.

> **Mitigation:** Implement Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation:** Implementation of the LSPGC APMs, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e would ensure that impacts related to this criterion would be mitigated to a less-than-significant level.

Amphibians and Reptiles

The Project could result in direct impacts on special-status amphibian and reptile species inhabiting open water, grassland and vernal pool habitats along the Project alignment, specifically

northwestern pond turtle, California tiger salamander, and California red-legged frog. The following impacts on these species could occur:

- Direct mortality due to vehicle strikes during Project construction.
- Removal of wetland vegetation that could be used for breeding and cover during construction and vegetation clearing activities.
- Temporary loss of grassland, wetland, wastewater pond and riparian habitat.
- Permanent loss of approximately 0.75 acre of potentially suitable breeding and upland dispersal habitat (annual grassland, open water, riparian, and wetland; Table 3.4-4).

These species are likely to occur in Project work areas near Coyote Creek and associated lakes and ponds, and among vernal pools and annual grassland/wetland of the Don Edwards NWR near Cushing Parkway.

Grading activities in wetlands could crush individuals or eggs, trap individuals within the active work area, or directly introduce pollutants from construction- or equipment-related fluids or materials, resulting in mortality. Noise and vibration during construction may also cause special-status amphibian or reptile species to abandon their habitats.

In addition, indirect effects on amphibians or NWPT may occur. These could include the introduction of pollutants (e.g., through *frac-out*, the unintentional return of drilling fluids to the surface) or invasive plants into aquatic habitat, resulting in water quality degradation that could reduce habitat quality or prey abundance. Work near or under channels could alter migration patterns, degrade occupied habitat, crush individuals or their eggs, or result in a frac-out or spill that could introduce construction-related materials or fluids, harming individual amphibians or turtles.

Potential direct impacts on reptiles and amphibians would be minimized by the implementation of the following LSPGC APMs:

- **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-9**: Worker Environmental Awareness (WEAP) Training.
- **APM BIO-10**: Outdoor Lighting Measures.
- **APM BIO-17**: Wetland, Vernal Pool, and Waterway Construction Timing Restrictions.
- **APM BIO-18**: Special-Status Amphibian Surveys.

Most of the Project would be constructed within existing disturbed roadways; similarly, temporary work areas would be located within previously disturbed habitats. Therefore, the disturbance of sensitive areas would be minimal. **APM BIO-18: Special-Status Amphibian Surveys** would require standard protocol surveys for CRLF and CTS in potential breeding habitats within 0.6-mile of potential impact areas, while surveys for NWPT would be conducted

before construction under APM BIO-3. Approximately 0.75 acre of suitable upland habitat would be permanently lost. The temporary impact areas, covering approximately 87 acres of annual grassland, open water, riparian, and wetland (Table 3.4-4), would be restored (APM BIO-1). Protocol or focused surveys following standard guidelines (APM BIO-18) and preconstruction sweeps (APM BIO-3) would identify areas where these species may occur. Any sensitive areas for these species that are identified, such as wetlands and waterways, would be clearly marked and avoided to the extent practicable by construction activities (APM BIO-4).

LSPGC would implement Mitigation Measure 3.4-1b, which would ensure that LSPGC obtains all required environmental permits and develops a Restoration Plan that identifies and provides guidance on construction activities relative to sensitive areas. LSPGC would also implement Mitigation Measure 3.4-1d, which would ensure that preconstruction clearance surveys are conducted by a qualified biologist within 7 days of the start of construction activities.

If these areas cannot be avoided, a qualified biological monitor would be present during all construction activities with the potential to affect special-status amphibians, and USFWS or CDFW would be consulted if special-status amphibians could not be avoided (APM BIO-18 and Mitigation Measure 3.4-1d).

Throughout construction, vehicles would stay on established roadways, and the speed limit would be 15 mph along proposed access roads and on the Project site (APM BIO-6) to reduce the risk of vehicle strikes or crushing of individuals and breeding sites. A WEAP would be administered to all workers (APM BIO-9). LSPGC would also implement Mitigation Measure 3.4-1e, which would supplement APM BIO-9 to ensure that a qualified biologist conducts pre-construction WEAP training for all personnel entering the Project site. Additionally, nighttime construction work would be avoided to the extent practicable (**APM BIO-10: Outdoor Lighting Measures**). Construction in the vicinity of waterways, wetlands, and vernal pools, such as along Cushing Parkway in the Don Edwards NWR's vicinity, would be timed for the dry season to the extent practicable (APM BIO-17), when amphibians and aquatic reptiles are less likely to be using these areas.

Indirect impacts of Project construction on reptiles and amphibians could include decreased water quality and habitat suitability and movement corridors in the Project vicinity. These impacts could be caused by factors such as spills or leaks into waterways, runoff, sedimentation, invasive species proliferation, increased noise from construction activities and increased human activity, and waterway modification. Additionally, a stormwater pollution prevention plan would be implemented for the Project (APM BIO-1), which would reduce impacts from runoff, spills or leaks, and sedimentation. The following PG&E FPs would be implemented on PG&E property to protect sensitive habitats from erosion and disturbance:

- **PG&E FP-1**: Worker training.
- **PG&E FP-2**: Park outside sensitive areas.
- **PG&E FP-3**: Use existing access roads.
- **PG&E FP-4**: Minimize impacts on biological resources.

- **PG&E FP-6**: Inspect pipes and culverts for species.
- **PG&E FP-7**: 15 mph speed limit.
- **PG&E FP-8**: No fires, litter, or pets.
- **PG&E FP-10**: Minimize activity footprint and time spent at a work location.
- **PG&E FP-11**: Erosion and sediment control BMPs.
- **PG&E FP-12**: Contain and cover stockpile soil.
- **PG&E FP-13**: Escape ramps.
- **PG&E FP-14**: Revegetate with "weed free" seed mix.
- **PG&E FP-15**: Refuel more than 250 feet from vernal pools and 100 feet from wetlands, streams, or waterways.
- **PG&E FP-16**: 250 feet buffer from vernal pools and 50 feet from wetlands, ponds, or riparian areas.

In addition, Mitigation Measure 3.4-1d would be implemented for protection of special-status amphibians and reptiles if found onsite.

California red-legged frog, Northwestern pond turtle, and California tiger salamander are all covered species under the Santa Clara Valley HCP. If these species are confirmed to be present during species-specific surveys, the take of these species would be covered either under the HCP or under a federal or state ITP in consultation with USFWS and CDFW.

As stated above, APM BIO-10 would minimize the use of light to reduce effects to amphibians and reptiles whenever practicable. To ensure that fugitive lighting is controlled at all times, such as when nighttime work is necessary or when lighting is needed for safety reasons, **Mitigation Measure 3.1-2: Minimize Fugitive Light from Temporary Sources Used for Construction**, would be implemented to supplement APM BIO-10. For these reasons, construction-related impacts on amphibians and reptiles would be mitigated to a **less-than-significant** level

> **Mitigation:** Implement Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.
>
> **Mitigation Measure 3.1-2**: **Minimize Fugitive Light from Temporary Sources Used for Construction.** The use of outdoor lighting shall be minimized during construction, operations, 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:** With implementation of the LSPGC APMs, PG&E FPs, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and

Mitigation Measure 3.4-1e construction-related impacts to amphibians and reptiles would be mitigated to a less-than-significant level.

Special-Status Nesting Birds and Roosting Bats

Project construction could directly affect special-status birds and bats 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. Specifically, ground disturbance by heavy equipment or vegetation removal could result in impacts on active bird nests: destruction of eggs or occupied nests, direct mortality of young, and the abandonment of nests with young birds before fledging. Similarly, ground disturbance or vegetation removal could result in impacts on occupied bat roosts, direct mortality of young bats, or abandonment of roosts with young bats unable to fly. The Project may also cause indirect construction effects: 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 as a result of vegetation removal or loss, soil compaction, or the introduction of invasive plants.

California Ridgway's Rail and California Black Rail. Direct impacts of Project construction on California Ridgway's rail and California black rail could occur in marsh habitat north of the transmission line alignment in Los Esteros Road and Staging Area 9, around Artesian Slough, and to the northeast around Coyote Creek and Lagoon. Direct impacts could include the removal of nesting habitat because of construction and vegetation clearing activities, as well as potential impacts on foraging or breeding behavior because of increased noise and human presence, including potential nest abandonment. There would be up to 0.54 acre of temporary impacts and no permanent impacts on suitable nesting or foraging habitat for California Ridgway's rail and California black rail (Table 3.4-4).

Potential direct impacts on California Ridgway's rail and California black rail would be minimized by the implementation of APM BIO-1 (Restoration), APM BIO-3 (Preconstruction Survey), APM BIO-4 (Demarcation of Sensitive Areas), APM BIO-6 (Vehicle Speed Limit), APM BIO-9 (WEAP), **APM BIO-11: Special-Status Bird Surveys**, and **APM BIO-12: Nesting Bird Protection Measures**. Under APM BIO-11, protocol-level surveys would be conducted for California Ridgway's rail and California black rail as a condition of Project approval. LSPGC would also implement Mitigation Measure 3.4-1b, which would ensure that Project obtains all required environmental permits and conduct restoration and monitoring according to the requirements set forth by the permits, among other actions. LSPGC would also implement Mitigation Measure 3.4-1d, which would ensure that preconstruction clearance surveys are conducted by a qualified biologist within 7 days of the start of construction activities.

Western Snowy Plover and Least Tern. Direct impacts on western snowy plover and least tern within salt evaporation ponds in the areas within Don Edwards NWR south of Cushing Parkway are not expected. Although there is potential nesting habitat within the study area, no nesting habitat is present near any construction work areas and none would be disturbed; therefore, there would be no potential impact on active nests. Furthermore, because of the distance from construction activities to potentially suitable habitat, indirect impacts on western snowy plover and least tern would not be expected.

Tricolored Blackbird. Direct impacts on tricolored blackbird (and other migratory birds that use marsh and grassland habitat for nesting) could occur in saline and subsaline marshland, annual grasslands, salt and wastewater treatment ponds, or riparian areas of Coyote Creek and the Guadalupe River, Coyote Creek near the RWF, and near Alviso within the Don Edwards NWR. Direct impacts could include potential vehicle strikes during Project construction; loss of nesting habitat from construction and vegetation clearing activities; and potential impacts on foraging or breeding behavior from increased noise and human presence, including potential nest abandonment.

The Project would result in temporary impacts on up to approximately 87 acres of potentially suitable nesting and foraging habitat for tricolored blackbird and the permanent loss of up to 0.075 acre of potentially suitable nesting and foraging habitat (e.g., grassland, riparian, wetland, and open water) (Table 3.4-4). Potential direct impacts on tricolored blackbird would be avoided or minimized by implementation of APM BIO-1 (Restoration), APM BIO-3 (Preconstruction Survey), APM BIO-4 (Demarcation of Sensitive Areas), APM BIO-6 (Vehicle Speed Limit), APM BIO-9 (WEAP), APM BIO-11 (Special-Status Bird Surveys), APM BIO-12 (Nesting Bird Protection Measures). Focused surveys and preconstruction sweeps (APM BIO-3, APM BIO-11, and **APM BIO-15: Nesting Bird Surveys**) would identify any trees or other vegetation that may house nests. These nests would be clearly marked with appropriate buffers and avoided by construction activities (APM BIO-4, APM BIO-12, and APM BIO-15). A qualified biological monitor would be present during all construction activities with the potential to affect nesting birds (APM BIO-11 and APM BIO-15). During the migratory bird nesting or breeding season (generally February 15–August 31), vegetation removal would be avoided, if feasible. If it is not feasible to avoid these activities during the breeding season, a nesting bird survey would be conducted in advance of those activities (APM BIO-12 and APM BIO-15). Throughout construction, vehicles would stay on established roadways and the speed limit would be 15 mph along proposed access roads and on the Project site (APM BIO-6), minimizing the risk of vehicle strikes or crushing of ground-nesting bird nests. Avian species would likely temporarily avoid the work area during construction activities because of the increased noise and activity. A WEAP would be administered to all workers and would include information on nesting birds (APM BIO-9 and Mitigation Measure 3.4-1e). In addition, PG&E FP-18 would protect nests, and **PG&E BMP BIO-2: Nesting Birds** would require nesting bird surveys on PG&E property with potential habitat. Further, LSPGC would also implement Mitigation Measure 3.4-1b and Mitigation Measure 3.4-1d, which would ensure that the Project would be conducted in accordance with environmental permit requirements and perform preconstruction clearance surveys, respectively, as described above.

Burrowing Owl. Direct impacts on burrowing owl could occur within suitable native and non-native grassland habitat around the existing PG&E Newark 230 kV Substation, Don Edwards NWR along Cushing Parkway, the Santa Clara Police Activities League BMX track, areas of the former Santa Clara Golf and Tennis Club, north of the PG&E Newark 230 kV Substation, and Staging Area 9. Burrowing owls nest near Staging Area 9 and the underground transmission line in Los Esteros Road, at a nearby burrowing owl conservation area. Direct impacts of Project construction could include potential vehicle strikes and the loss of nesting habitat from construction and vegetation clearing activities. Additionally, the Project could result in potential indirect impacts on foraging or breeding behavior from increased noise and human presence, including potential nest abandonment. The Project would result in temporary impacts on up to approximately 79.85 acres of

potentially suitable nesting and foraging habitat for burrowing owls and the permanent loss of up to 0.05 acre of potentially suitable nesting and foraging habitat (annual grassland; Table 3.4-4).

Potential direct impacts on burrowing owl would be minimized by the implementation of APM BIO-1 (Restoration), APM BIO-3 (Preconstruction Survey), APM BIO-4 (Demarcation of Sensitive Areas), APM BIO-6 (Vehicle Speed Limit), APM BIO-9 (WEAP), APM BIO-11 (Special-Status Bird Surveys), and APM BIO-12 (Nesting Bird Protection Measures), as well as PG&E FP-18, and **PG&E BMP BIO-1: Burrowing Owl** and PG&E BMP BIO-2 for nesting bird and burrowing owl protection.

Under APM BIO-11, burrowing owl protocol surveys would be conducted using standard guidelines as a condition of Project approval. Additional burrowing owl protections may be implemented at Staging Area 9 and Los Esteros Road, such as constructing berms or placing hay bales to block construction activities from known burrowing owl breeding and foraging areas (APM BIO-11). Indirect impacts are expected to be minimal given the existing infrastructure and human activity in the immediate vicinity of suitable habitat throughout the study area. However, the construction of the substation perimeter fence could deter burrowing owls from nesting in grassland habitat near the existing PG&E Newark 230 kV Substation. Further, LSPGC would also implement Mitigation Measure 3.4-1b and Mitigation Measure 3.4-1d, which would ensure that the Project would be conducted in accordance with environmental permit requirements and perform preconstruction clearance surveys, respectively, as described above.

Golden Eagle. Impacts on golden eagles could occur near Staging Area 9 and Los Esteros Road, where there is a known nest approximately 1,000 feet south of the proposed staging area. Indirect impacts from noise and increased human activity are expected to be low, given the current high levels of industrial facilities and human activity in the vicinity. Direct impacts could include potential vehicle strikes during Project construction or nest abandonment from construction activities. Direct impacts from potential vehicle strikes would be low because of the reduced speeds of construction equipment vehicles on local roads. The Project would result in temporary impacts on up to approximately 79.85 acres of golden eagle foraging habitat and a permanent loss of approximately 0.05 acre of foraging habitat (annual grassland habitat; Table 3.4-4).

Potential direct impacts on golden eagle would be minimized by the implementation of APM BIO-1 (Restoration), APM BIO-3 (Preconstruction Survey), APM BIO-4 (Demarcation of Sensitive Areas), APM BIO-6 (Vehicle Speed Limit), APM BIO-9 (WEAP), APM BIO-11 (Special-Status Bird Surveys), APM BIO-12 (Nesting Bird Protection Measures), **APM BIO-13: Raptor Surveys**, and **APM BIO-14: Golden Eagle Protection**. Protocol surveys using standard guidelines for bald and golden eagles require aerial or ground-based surveys within 2 miles of impact areas between February 1 and May 15 (USFWS 2021). Surveys for other raptors would be conducted concurrently with bald and golden eagle surveys. Further, LSPGC would also implement Mitigation Measure 3.4-1b and Mitigation Measure 3.4-1d, which would ensure that the Project would be conducted in accordance with environmental permit requirements and perform preconstruction clearance surveys, respectively, as described above.

Protected Nesting Birds and Roosting Bats. Direct impacts on protected nesting birds, including raptor species, or roosting bats could occur in the southern part of the study area near

trees or shrubs that could be used for nesting or roosting in natural or landscaped areas. These direct impacts could include potential vehicle strikes, removal of vegetation containing active nests, and disruptions to foraging or breeding behavior from increased noise and human presence, potentially leading to nest abandonment.

Potential direct impacts on protected nesting birds and roosting bats would be avoided or minimized by implementation of APM BIO-1 (Restoration), APM BIO-3 (Preconstruction Survey), APM BIO-4 (Demarcation of Sensitive Areas), APM BIO-6 (Vehicle Speed Limit), APM BIO-9 (WEAP), APM BIO-11 (Special-Status Bird Surveys), APM BIO-12 (Nesting Bird Protection Measures), and APM BIO-13 (Raptor Surveys). Focused surveys and preconstruction sweeps (APM BIO-3, APM BIO-11, APM BIO-13, and APM BIO-15) would identify any trees or other vegetation that may house nests. These nests would be clearly marked with appropriate buffers and avoided by construction activities (APM BIO-4, APM BIO-12, APM BIO-13, and APM BIO-15). A qualified biological monitor would be present during all construction activities with the potential to affect nesting birds (APM BIO-11, APM BIO-13, and APM BIO-15).

During the migratory bird nesting or breeding season (generally February 15–August 31), vegetation removal would be avoided, if feasible. If it is not feasible to avoid these activities during the breeding season, a nesting bird survey would be conducted in advance of those activities (APM BIO-12 and APM BIO-15). Throughout construction, vehicles would stay on established roadways and the speed limit would be 15 mph along proposed access roads and on the Project site (APM BIO-6), minimizing the risk of vehicle strikes or crushing of ground-nesting bird nests. Avian species would likely temporarily avoid the work area during construction activities because of the increased noise and activity. A WEAP would be administered to all workers and would include information on nesting birds (APM BIO-9 and Mitigation Measure 3.4-1e). In addition, PG&E FP-18 would protect nests, and PG&E BMP BIO-1 and PG&E BMP BIO-2 would require burrowing owl and nesting bird surveys on PG&E property with potential habitat. Further, LSPGC would also implement Mitigation Measure 3.4-1b and Mitigation Measure 3.4-1d, which would ensure that the Project would be conducted in accordance with environmental permit requirements and perform preconstruction clearance surveys, respectively, as described above.

Other Impacts. Indirect impacts on avian species during construction could include reduced suitability of habitat in the Project vicinity because of factors such as increased noise from construction activities and vehicles, and increased human activity. These indirect impacts would be minimized by implementation of APM BIO-1, APM BIO-9, and APM BIO-10. Also, the Project would implement Mitigation Measure 3.1-2, which would minimize the use of outdoor lighting during construction and operations and maintenance. Noise from construction activities could affect avian species in multiple ways, such as reducing breeding success through acoustical masking, interference with intra-specific communication, and interference with the detection of predators. Indirect impacts from lighting are not expected because nighttime construction is not proposed near suitable habitat.

Construction activities could disrupt breeding and foraging activities, prevent birds from tending to nests, or cause birds to flush from their nests, thus endangering eggs and chicks. However,

Project construction noise would be short-term and would not substantially differ from the high levels of noise disturbance already associated with the Project area. Night lighting would be motion detecting, which would reduce potential light-related impacts on birds that may be active at night (APM BIO-10 and Mitigation Measure 3.1-2). WEAP training would be administered to all workers to educate them on the potential for indirect impacts on special-status birds and ways to reduce these impacts (APM BIO-9 and Mitigation Measure 3.4-1e). Additionally, all temporary impact areas would be restored in accordance with APM BIO-1, minimizing the impact of decreased habitat suitability. Further, LSPGC would also implement Mitigation Measure 3.4-1b and Mitigation Measure 3.4-1d, which would ensure that the Project would be conducted in accordance with environmental permit requirements and perform preconstruction clearance surveys, respectively, as described above.

Tricolored blackbird and burrowing owl are covered species under the Santa Clara Valley HCP. If impacts are identified during species-specific surveys, the take for these species would be covered either under the HCP or a state ITP in consultation with CDFW. For the other state-listed avian species that are not covered under the Santa Clara Valley HCP (such as western snowy plover, California black rail, Ridgway's rail, burrowing owl, bald eagle, and any other identified avian species), the take would likely be covered under a federal or state ITP in consultation with USFWS and CDFW if impacts are identified during species-specific surveys.

As stated above, APM BIO-10 would minimize the use of light to reduce effects to nocturnal birds and bats whenever practicable. To ensure that fugitive lighting is controlled at all times, such as when nighttime work is necessary or when lighting is needed for safety reasons, Mitigation Measure 3.1-2 would be implemented to supplement APM BIO-10.

> **Mitigation:** Implement Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation:** With implementation of the LSPGC APMs, PG&E BMPs and PG&E FPs, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e, construction-related impacts to special-status nesting birds and roosting bats would be reduced to a less-than-significant level.

Salt Marsh Harvest Mouse

Potential habitat for salt marsh harvest mouse is located west of the proposed alignment in Coyote Creek Lagoon's vicinity, north of the RWF wastewater disposal ponds, and in the Don Edwards NWR (west of the alignment). Direct impacts on SMHM could result from potential vehicle strikes occurring in these areas during Project construction if individuals disperse from their typical habitat, destruction of habitat during clearing activities, and entrapment in excavations. Although the coastal salt marsh habitat where this species occurs would not be directly affected, construction would take place in upland areas near the coastal salt marsh. These potential direct impacts would be avoided or minimized by the implementation of APM BIO-6 (Vehicle Speed Limits), APM BIO-7 (SMHM Surveys), **APM BIO-8: Excavation Wildlife Safety Best Management Practices**, APM BIO-9 (WEAP Training), APM BIO-3 (Preconstruction Surveys), and APM BIO-4 (Demarcation of Sensitive Areas). Protocol surveys and preconstruction sweeps (**APM BIO-7: Salt Marsh Harvest Mouse Surveys** and APM BIO-3) would identify any

suitable habitat where SMHM could occur close to Project construction areas. LSPGC would implement Mitigation Measure 3.1-2, which would minimize the use of outdoor lighting during construction and operations and maintenance. Further, LSPGC would also implement Mitigation Measure 3.4-1b and Mitigation Measure 3.4-1d, which would ensure that the Project would be conducted in accordance with environmental permit requirements and perform preconstruction clearance surveys, respectively, as described above.

Coastal salt marsh within wetlands would be clearly marked and avoided by Project construction activities to the extent practicable (APM BIO-4 and APM BIO-7). Although coastal salt marsh habitat occurs close to the study area within wetland types, a qualified biological monitor would be present during construction activities within 500 feet of SMHM habitat, including the area west of Coyote Creek, south of Staging Area 5, and any other areas within 500 feet of identified habitat (APM BIO-7). All adjacent known SMHM areas would be clearly marked and avoided (APM BIO-7). The monitor would allow SMHM detected in the work area to leave the area on its own, and would have authority to temporarily halt construction for protection of SMHM. Throughout construction, vehicles would stay on established roadways, and the speed limit would be 15 mph along proposed access roads and on the Project site (APM BIO-6) to reduce the risk of vehicle strikes. SMHM would likely avoid the construction area during construction activities because of increased noise and activity. All trenches and holes that could create an entrapment hazard for SMHM would be covered or have wildlife escape ramps installed (APM BIO-8) to avoid potential mortality because of entrapment. If SMHM habitat cannot be avoided by construction activities, CDFW and USFWS would be consulted, and federal or state ITP coverage would be pursued for the Project.

Indirect impacts on SMHM during construction could include a temporary reduction in habitat suitability in the Project vicinity caused by noise from construction activities and increased human activity. Impacts from lighting are not anticipated because the Project does not propose nighttime construction near SMHM habitat. Noise from construction activities could disrupt breeding and foraging activities in the immediate vicinity, but these effects would be short-term. The implementation of APM BIO-9 (WEAP) and APM BIO-1 (Restoration of Disturbed Areas) would minimize indirect impacts. LSPGC would also implement Mitigation Measure 3.4-1e, which would supplement APM BIO-9 to ensure that a qualified biologist conducts pre-construction WEAP training for all personnel entering the Project site.

After the implementation of LSPGC APMs and Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e, impacts on SMHM would be mitigated to a **less-than-significant** level.

> **Mitigation:** Implement Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, and Mitigation Measure 3.4-1d.
>
> **Significance after Mitigation:** With implementation of the LSPGC APMs, PG&E BMPs and PG&E FPs, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e, construction-related impacts to special-status nesting birds and roosting bats would be reduced to a less-than-significant level.

Operations 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 the risk of potential vehicle strikes or crushing of special-status species during O&M, vehicles would stay on established roadways, and the speed limit would be 15 mph along proposed access roads and on the Project site (APM BIO-6). Operational activities along the Cushing Parkway Bridge would be limited to vegetation management within a 30-foot O&M utility easement. Workers would be trained (APM BIO-9 and Mitigation Measure 3.4-1e) to avoid harm to wildlife species that may be present within vegetation before cutting.

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. However, operational noise would be low and in the range of normal background noise. Indirect impacts related to spills or leaks, runoff, and sedimentation would be minimized through continued adherence to the site stormwater pollution prevention plan and erosion control BMPs. Indirect impacts from invasive species proliferation would be minimized through adherence to APM BIO-5, which requires vehicle cleaning before entering natural areas. After implementation of these measures, O&M impacts would be mitigated to a **less-than-significant** level.

The risk to birds and bats from collision and electrocution from Project structures during operation is discussed under Impact 3.4-7.

> **Mitigation:** Implement Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation:** Implementation of the LSPGC APMs and Mitigation Measure 3.4-1e would ensure that impacts to birds and bats would be less than significant.

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 the California Department of Fish and Wildlife or US Fish and Wildlife Service.

Impact 3.4-2: The Project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. (*Less than Significant with Mitigation*)

Construction

Riparian habitat and other sensitive habitat areas, including riparian vegetation, wetlands, and vernal pools, are present within the study area and within impact areas. Construction impacts on riparian habitat would include 0.12 acre of temporary impacts and 0.005 acre (217.8 square feet) of permanent impacts (Table 3.4-4). These temporary impacts are associated with vegetation clearing for pole construction, stringing of conductor at proposed overhead structure NN-5, and underground work areas. All wetlands and other aquatic resources, including vernal pools, would

be delineated before construction (APM BIO-19), and impacts would be avoided to the extent practicable (APM BIO-4 and Mitigation Measure 3.4-1d). All temporary impacts on sensitive vegetation communities would be restored in accordance with APM BIO-1 and Mitigation Measure 3.4-1b.

Impacts on wetlands, including floodplains and vernal pools, are discussed under Impact 3.4-3. No other sensitive habitat areas would be affected by the Project. Although the implementation of LSPGCAPMs would reduce direct and indirect impacts on riparian habitat or other sensitive vegetation communities, these impacts would remain significant because the LSPGC APMs lack proscriptive measures for restoration implementation. After the implementation of Mitigation Measure 3.4-1b, which details ecological monitoring and reporting requirements for the Habitat Restoration Plan to be approved by CDFW, impacts on riparian habitat, wetlands, and other sensitive natural communities would be reduced to **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.4-1b and Mitigation Measure 3.4-1d.
>
> **Significance after Mitigation:** Implementation of the LSPGC APMs and Mitigation Measure 3.4-1d would ensure that impacts associated with riparian or other sensitive natural communities would be less than significant.

Operations and Maintenance

Operational impacts on riparian habitat are unlikely. Operation would entail brief periodic maintenance and inspections that would not require ground disturbance or clearing of vegetation. Because there would be no ground disturbance in areas where riparian habitat occurs, operation of the Project 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 have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant with Mitigation*)

Construction

As shown in Table 3.4-4, Project construction would result in temporary impacts on approximately 6.7 acres of waters (wastewater treatment pond) and 0.54 acre of wetlands, including 0.02 acre of floodplain and 0.09 acre of vernal pools north of the PG&E Newark 230 kV Substation. All these wetland types are considered sensitive natural communities, and all are potentially jurisdictional, except the wastewater treatment ponds, which are not considered waters of the United States. Waters of the United States are not mutually exclusive from waters of the state, which are defined more broadly.

Open-water habitats are shown on Figure 3.4-1. Horizontal directional drilling trenchless techniques would be used to cross under streams, minimizing impacts on aquatic habitats. However, the construction of pads and substation modifications would cause temporary and permanent impacts on riparian areas and wetlands (Table 3.4-4).

The temporary impacts are associated with vegetation clearing for pole construction and for stringing of conductor at proposed overhead structures. Federal and state aquatic permits would be required for any change to existing channel, bed, or bank; removal or deposit of material; or diversion or obstruction of the natural flow of a jurisdictional water feature. Therefore, the following permits may be required: Section 1602 Lake and Streambed Alteration Agreement from CDFW; Clean Water Act Section 401 Water Quality Certification from the RWQCB; and Clean Water Act Section 404 Permit from USACE.

Wetland delineations at the area along Coyote Creek near McCarthy Boulevard and the RWF (i.e., from the southern side of the McCarthy Boulevard Bridge to the proposed overhead structure NN-5), and on both the north and south sides of the Cushing Parkway Bridge, found that no permanent impacts on wetlands would result from Project implementation, with approximately 0.2 acre of temporary impacts in these areas (LSPGC 2025). Additional locations along the alignment also contain potential jurisdictional water features. An aquatic resources delineation would be conducted within all areas with potential wetlands before construction to identify exact impact acreages and determine whether permits would be needed (APM BIO-19 and Mitigation Measure 3.4-1b). To minimize temporary impacts resulting from the work at the PG&E Newark 230 kV Substation, PG&E would implement FP-1 through FP-16 (see Section 3.4.4). The vernal pools would be avoided to the maximum extent practicable by implementing a construction buffer (PG&E FP-16) and implementing spill prevention BMPs (PG&E FP-15). Training (PG&E FP-1) would educate workers about the vernal pools as sensitive areas and about measures to minimize impacts. Temporary impacts on this area would also be restored (PG&E FP-14). Outside of the PG&E property, sensitive areas would be demarcated for maximum avoidance (APM BIO-4), and all temporary impacts on sensitive vegetation communities would be restored in accordance with APM BIO-1. As noted above, the impact would remain significant after the implementation of PG&E FPs and LSPGC APMs due to the lack of detail regarding the significance criteria for restoration evaluation. After the implementation of Mitigation Measure 3.4-1b, which details ecological monitoring and reporting requirements for the Habitat Restoration Plan, impacts on sensitive natural communities would be reduced to **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.4-1b.
>
> **Significance after Mitigation:** Implementation of the LSPGC APMs, PG&E FPs, and Mitigation Measure 3.4-1b would help ensure that impacts associated with federally or state-protected wetlands would be less than significant.

Operations and Maintenance

Project O&M would not result in a substantial adverse effect on waters of the United States or waters of the state. Maintenance traffic and human activity would be restricted to pads and disturbed land surrounding the transmission line. Stormwater would be managed according to a stormwater management plan and BMPs would be established in the associated stormwater

pollution prevention plan. Therefore, operational impacts on waters of the United States or waters of the state 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 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

Significant impacts on wildlife movement could occur if a wildlife movement corridor is interrupted by a physical barrier (e.g., a road) or if suitable habitat that supports wildlife in the movement corridor is removed during construction, temporarily blocked, or indirectly affected by construction noise or dust.

The Project is located mainly within developed areas in the cities of Fremont, Milpitas, San José, and Santa Clara. The high degree of residential, commercial, and industrial development in these areas substantially fragments habitat; as a result, wildlife movement is limited. The Project would be constructed mostly along and within existing public right-of-way road and would not create any additional barriers to movement along the road. The overhead portions of the line would be constructed near previously disturbed areas, such as the RWF and the existing PG&E Newark 230 kV Substation. Although these developed areas do not provide corridors for wildlife movement, they are interspersed with numerous riparian corridors and waterways used by terrestrial wildlife. The degree to which upland species would use stream corridors depends on the width of natural vegetation, the extent and character of road crossings, and the distance of buffers from existing development. Project construction would traverse streams via trenchless installation methods, overhead lines, or by affixing pipeline segments to bridges, thereby avoiding substantial interference of native resident and migratory wildlife movement along stream corridors.

The proposed PG&E Newark 230 kV Substation modification work would occur within PG&E's existing property, which is surrounded by a security fence near the substation. Therefore, the proposed modifications would not result in new restrictions on wildlife movement.

The watersheds in the Project area, particularly the Guadalupe River system, are known to support protected anadromous fish species, including Central California Coast DPS steelhead and Central Valley fall-run Chinook salmon. Streams in the Project area also support northwestern pond turtle and other aquatic species.

Project construction would temporarily disturb natural habitat adjacent to streams. Subsurface horizontal directional drilling or boring and jacking under streams would avoid substantial interference with movement by native fish and aquatic wildlife. However, if a frac-out were to

occur within a stream during subsurface construction, movement by aquatic fish and wildlife could be substantially altered. Additionally, construction lighting has the potential to alter the behavior of fish, potentially leading to harm or mortality. Implementation of APM BIO-17 would restrict work in aquatic resource areas to the dry season, when fish are less likely to be present, and APM BIO-10 would restrict nighttime outdoor lighting. LSPGC would also implement Mitigation Measure 3.1-2, which would supplement APM BIO-10 and ensure that fugitive lighting is controlled at all times. Further, LSPGC would implement Mitigation Measure 3.4-1c, which would ensure preparation of a frac-out plan to prevent and address potential inadvertent frac-outs.

Construction along the Cushing Parkway Bridge, which traverses the Don Edwards NWR, would affect wildlife movement by creating a potential barrier alongside the bridge. Project construction activities would remain within the existing utility easement and would be restricted to the dry season when wildlife are less likely to use the corridor (APM BIO-17). Additionally, this area already experiences regular traffic and maintenance activities, so wildlife moving through are accustomed to disturbance. Speed limits in construction areas would be kept to 15 mph, reducing the potential for vehicles to strike moving wildlife (APM BIO-6), and workers would be trained to avoid wildlife (APM BIO-9 and Mitigation Measure 3.4-1e). Sensitive areas, such as the Coyote Creek riparian corridor, would be clearly marked for avoidance to reduce impacts on suitable movement habitats for wildlife (APM BIO-4 and Mitigation Measure 3.4-1d). Night work and nighttime lighting would be limited (APM BIO-10 and Mitigation Measure 3.1-2) to avoid times when wildlife are more active. Vegetation removal would be minimized and all temporary impact areas would be restored (APM BIO-1 and Mitigation Measure 3.4-1b) after construction.

Impacts on wildlife nursery sites are possible at the PG&E Newark 230 kV Substation, particularly in the vernal pools that could serve as breeding areas for vernal pool tadpole shrimp and CTS. PG&E would implement FPs to protect these potential nursery sites, including erosion and sediment control (PG&E FP-11 and PG&E FP-12) and spill prevention (PG&E FP-15), and would provide markings or flagging and buffers from the edge of the vernal pools (PG&E FP-16). Training (PG&E FP-1) would educate workers on the potential for special-status birds, amphibians, and invertebrates to occur and measures to minimize impacts. Temporary impacts in this area would also be restored (PG&E FP-14). PG&E would minimize areas of disturbance to sensitive species by implementing FP-1 through FP-4, FP-6, and FP-10. PG&E BMP BIO-2 would address potential impacts on nesting birds. Vernal pools would be avoided to the maximum extent practicable and marked as sensitive areas (PG&E FP-15), and construction would be timed for the dry season to the maximum extent practicable (PG&E FP-16), when pools are likely to be dry and amphibians and invertebrates are less likely to be active.

As stated above, APM BIO-10 would minimize the use of light to reduce effects on amphibians and reptiles whenever practicable. To ensure that fugitive lighting is controlled at all times, such as when nighttime work is necessary or when lighting is needed for safety reasons, Mitigation Measure 3.1-2, would be implemented to supplement APM BIO-10. Mitigation Measure 3.4-1d would provide additional avoidance and protection of any special-status wildlife detected in work areas.

With implementation of these LSPGC APMs, PG&E FPs, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, and Mitigation Measure 3.4-1c, impacts on terrestrial and aquatic wildlife movement corridors and nursery sites would be reduced to a **less-than-significant** level.

Impacts on aerial species (e.g., bird and bat) movement are considered under Impact 3.4-7.

> **Mitigation:** Implement Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation:** Implementation of the LSPGC APMs, PG&E FPs, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e would help ensure that impacts associated with federally or state-protected wetlands would be less than significant.

Operations and Maintenance

Project O&M activities would be periodic, would occur primarily in developed areas, and would avoid natural habitat areas. Operational impacts on terrestrial wildlife species' movement would occur at focused locations and would be short in duration. Project operations are unlikely to affect aquatic species' movement and nursery areas. Maintenance activities would avoid stream corridors and aquatic species' habitat. Therefore, the impact of Project operation 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.

Project operations and maintenance would entail periodic maintenance of the transmission lines, the nature of which would not affect sensitive biological resources. Therefore, Project operations would have no impact on this criterion. (*No Impact*)

Impact 3.4-5: Project construction 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; therefore, the Project is not subject to local land use or zoning regulations or discretionary permits. The substation modifications would occur entirely on PG&E or SVP property. 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 Project has been designed to be consistent with the general plans and policies of the cities of Fremont, Milpitas, San José, and Santa Clara. The Project would result in the removal of approximately 16 trees, primarily landscape trees near proposed overhead structures. **Mitigation Measure 3.4-5: Compliance with Local Tree Ordinances,** would require LSPGC to coordinate

with the cities of Fremont, Milpitas, San José, and Santa Clara to obtain permission to remove street trees and any required permits for the removal of existing trees. Implementation of Mitigation Measure 3.4-5 would reduce the Project's impacts on local policies or ordinances to be **less than significant**.

Mitigation Measure 3.4-5: Compliance with Local Tree Ordinances

All removal of street trees within the cities of Fremont, Milpitas, San José, and Santa Clara shall be coordinated with the responsible department in each city (see Section 3.4.3, *Regulatory Setting*) to obtain any necessary tree removal permits. LSPGC shall comply with all permit conditions including tree replanting and monitoring to help ensure successful replanting. Prior to the start of construction, LSPGC shall provide the CPUC with copies of the permits issued by the applicable jurisdictions.

Significance after Mitigation: Implementation of Mitigation Measure 3.4-5 would reduce impacts associated with local policies or ordinances to a less-than-significant level.

Criterion f) Whether the Project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Operation of the Project would entail periodic maintenance of the transmission lines and would avoid sensitive biological resources. Therefore, no impact would occur. (*No Impact*)

Impact 3.4-6: Project construction 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. (*Less than Significant*)

Construction

The Project is located within PG&E's Bay Area O&M HCP (PG&E 2017) and Santa Clara Valley HCP (Santa Clara County et al. 2012) and adjacent to the Don Edwards NWR CCP. 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 O&M activities within the San Francisco Bay Area while avoiding, minimizing, and mitigating for temporary and permanent impacts on threatened and endangered species' habitats (PG&E 2017). LSPGC is not a stakeholder in PG&E's Bay Area O&M HCP and the activities proposed are not covered under this HCP.

The PG&E Newark 230 kV Substation modifications would occur within and adjacent to the existing substation facilities, located entirely within PG&E-owned property. Construction of an overhead structure in this undeveloped area would result in temporary and permanent impacts on sensitive vegetation and communities (temporary vernal pools; temporary impacts and permanent impacts on annual grassland). PG&E would implement FPs 1-16 (see Section 3.4.4) and construction measures PG&E BMP BIO-2. The PG&E FPs are derived directly from the Bay Area O&M HCP and the PG&E BMP is consistent with the PG&E HCP. No impacts on Bay Area O&M HCP Covered Species are expected at this site. Therefore, no impacts related to conflicts with approved HCPs would occur.

The Santa Clara Valley HCP provides a framework for protection of natural resources, including endangered species, while streamlining the permitting process (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). Project construction activities would occur mostly within the planning limits of urban growth and may be covered activities. The Santa Clara Valley HCP covers California red-legged frog, northwestern pond turtle, California tiger salamander, burrowing owl, and tricolored blackbird. If impacts on these species are identified and cannot be avoided, LSPGC would coordinate with the Santa Clara Valley HCP stakeholders to obtain required coverage for the Project. Should LSPGC be unable to obtain coverage from the Santa Clara Valley HCP, LSPGC would consult with the wildlife agencies for take coverage. LSPGC APMs align with the HCP measures, so no conflicts with approved HCPs are anticipated.

The Don Edwards NWR CCP is a refuge-specific program for conserving natural resources, stewarding wildlife habitat, and engaging the community in conservation. Portions of the Project would be located adjacent to the Don Edwards NWR; however, in these areas, the transmission line would be located entirely within existing public roadways or existing utility easements adjacent to Cushing Parkway. Therefore, the Project would not be an incompatible use within the Don Edwards NWR.

The Project would cross BCDC jurisdiction adjacent to the Don Edwards NWR, which is designated by BCDC as a Priority Use Area for Wildlife. LSPGC has initiated coordination with BCDC, and it was confirmed that, at a minimum, an administrative permit would be required for any transmission line crossings under or over BCDC jurisdiction (LSPGC 2025). LSPGC would continue ongoing coordination with BCDC for its continued review (LSPGC 2025) and obtain the necessary permits before construction to help ensure compliance with the policies of both the McAteer-Petris Act and the San Francisco Bay Plan. Thus, Project implementation would not conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP, and impacts would be **less than significant**.

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 with Mitigation*)

Construction

The Newark to NRS 230 kV AC transmission line would be constructed primarily underground, with limited sections switching to overhead before returning underground. The installation of new power lines primarily underground would reduce the risk of potential collision or electrocution impacts to birds or bats. However, overhead portions of the transmission line would have potential for direct impacts on bird and bat species from mortality or injury due to collision during construction. Additionally, construction of four new overhead structures at the PG&E

Newark 230 kV Substation and modifications at the SVP NRS 230 kV Substation would increase the risk of collision for birds and bats.

The risks of collision associated with this new construction would be reduced by using appropriate Avian Power Line Interaction Committee (APLIC) methods. Collision prevention methods include placing visual deterrents on wires and structures to increase their visibility to migratory birds (APLIC 2012). These methods, along with minimizing the use of overhead wires for the Project, have been incorporated into the Project design (see Section 2.6, *Project Components*) to reduce the likelihood of avian or bat collision. Construction workers would also receive WEAP training (APM BIO-9 and Mitigation Measure 3.4-1e for LSPGC work; or PG&E FP-1 and PG&E BMP BIO-2 for PG&E work) with information on minimizing impacts on migratory birds and bats and avoiding impacts on nests and roosts.

Following the implementation of LSPGC APMs, PG&E BMPs, PG&E FPs, and Mitigation Measure 3.4-1e, which require adherence to APLIC design standards, impacts would be mitigated to **less than significant**.

> **Mitigation**: Implement Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation**: Implementation of LSPGC APMs, PG&E BMPs, PG&E FPs, and Mitigation Measure 3.4-1e would ensure impacts related to this criterion would be mitigated to less than significant.

Operations and Maintenance

During Project operation of the overhead lines, avian species would be at risk of electrocution, as well as collision. The new overhead structures at the PG&E Newark 230 kV Substation and modifications at the SVP NRS 230 kV Substation and the overhead transmission lines could contribute to avian electrocution if birds were able to contact two conducting wires simultaneously, or a wire and a grounded part of the line.

To avoid electrocution risk, Project design includes implementation of APLIC measures to space conductors and ground wires sufficiently far apart that raptors or other birds in the area are not able to contact two conductors (or one conductor and a ground wire) to cause electrocution (APLIC 2006). Collision risk would also be present during Project construction and operation; however, with the continued application and maintenance of APLIC methods combined with the implementation of Mitigation Measure 3.4-1e, impacts related to collision or electrocution risks to birds and bats would be mitigated **less than significant**.

> **Mitigation**: Implement Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation**: Implementation of LSPGC APMs, PG&E BMPs, PG&E FPs, and Mitigation Measure 3.4-1e would ensure impacts related to this criterion would be mitigated to less than significant.

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 cumulatively considerable impacts. Significant cumulative impacts related to biological resources 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 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 within Table 3.0-1.

The geographic context for the analysis of cumulative impacts associated with biological resources varies depending on the considered species or resource, but is generally defined at 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 C.3.4-1: 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. (*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, twelve special-status plants that have moderate to high potential to occur within the study area and a number of special-status wildlife (e.g., invertebrates, fish, amphibians and reptiles, nesting birds, and salt marsh harvest mouse). Impact 3.4-1 also discusses the Project potential impacts on USFWS-designated critical habitat for the Contra Costa goldfields and vernal pool tadpole shrimp. It is provided that the Project's potential construction impacts to species identified as a candidate, sensitive, or special-status species would be mitigated to a less-than-significant impact.

Construction

Effects on Special-Status Plants

While there are 12 special-status plants that have a moderate to high potential to occur in the study area, none are expected to occur within the temporary or permanent impact areas. However, it is also provided that focused surveys have not been conducted to demonstrate the absence of special-status plants, and if these are present within or immediately outside of the Project area, direct and indirect impacts may occur. Also, the extent of the habitat impact at the Cushing Parkway Bridge would depend on whether the transmission line alignment is attached to the underside of the bridge or trenched adjacent to the bridge within the 10-foot utility easement.

To reduce potential Project impacts on special-status plants, LSPGC would implement APM BIO-2 (Rare Plant Surveys), APM BIO-4 (Sensitive Area Demarcation), APM BIO-5 (Vehicle

Cleaning), and Mitigation Measure 3.4-1a: Avoid Impacts to Rare Plants. The combination of these LSPGC APMs and Mitigation Measure would ensure that the Project's potential impacts to special-status plants would be less than significant.

As provided in Table 3.0-1, there are over 70 cumulative projects that would occur within 2 miles of the Project, with some occurring in a similar, or overlapping, construction schedule as the Project. These cumulative projects include, but are not limited to, a mix of residential, commercial, mixed-use, industrial, and utility developments, all of would undergo development review by local departments/jurisdictions. Also, many of these cumulative projects would occur on developed or previously disturbed land, such as those occurring at the San José RWF, and along Zanker and Los Esteros roads. As shown in Table 3.0-1, 7 Top Golf Drive (cumulative project number 31) would be developed on Staging Area 10, which is a parcel that has been identified as previously disturbed.

These departmental reviews typically adhere to regulatory rules and regulations, and if necessary, elicit further environmental reviews, like the Project. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance and minimization measures) because of their respective environmental review processes, or as existing mitigation commitments to avoid or limit their impacts to sensitive biological resources, for example, on special-status plants. Therefore, Project construction, 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 Mitigation Measure 3.4-1a.
>
> **Significance after Mitigation:** Through the implementation of APM BIO-2, APM BIO-4, APM BIO-5, and Mitigation Measure 3.4-1a, 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 federally listed endangered plant Contra Costa goldfields and vernal pool tadpole shrimp could be directly affected in the Don Edwards NWR's vicinity along Cushing Parkway, where a mapped section of designated critical habitat extends. LSPGC would implement APM BIO-3 (Preconstruction Sweeps), APM BIO-16 (Special-Status Invertebrate Surveys), APM BIO-19 (Wetland and Aquatic Resources Delineations), Mitigation Measure 3.4-1b: Habitat Restoration and Monitoring, Mitigation Measure 3.4-1c: Frac-out Plan, and Mitigation Measure 3.4-1d: Protection of Special-status Wildlife. The combination of these LSPGC APMs and mitigation measures would reduce potential impacts on the critical habitat, such as the Contra Costa goldfields and vernal pool tadpole shrimp, to less than significant.

As shown in Table 3.0-1 and presented in Figure 3.0-1, there are no cumulative projects that would occur in the Don Edwards NWR. While there is a cumulative project that could occur adjacent to the Don Edwards NWR, 44408 Pacific Commons Blvd (cumulative project number 3), the details of this cumulative project are still under consideration by the city of Fremont, or a

decision has been made, but construction activities have not been established or are not readily available. However, it is not anticipated that the development associated with 44408 Pacific Commons Blvd would have adverse effects to critical habitat as development would occur within highly disturbed parcels and inside large warehouses. Therefore, the cumulative projects would have none to nominal impacts related to designated critical habitat, including those for Contra Costa goldfields and vernal pool tadpole shrimp. For these reasons, Project construction, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** on critical habitats.

> **Mitigation**: Implement Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d.
>
> **Significance after Mitigation**: Through the implementation of APM BIO-3, APM BIO-16, APM BIO-19, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, and Mitigation Measure 3.4-1d, 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

As discussed under Impact 3.4-1, Project construction impacts could occur on special-status invertebrates, fish, amphibians and reptiles, nesting birds, and the salt marsh harvest mouse. As discussed in detail above, however, the Project, both for LSPGC's and PG&E's scope of work, would implement a number of LSPGC APMs, mitigation measures, PG&E BMPs, and PG&E FPs.

Invertebrates

For invertebrates, direct Project construction impacts on special-status invertebrate species (e.g., Crotch's bumblebee, Western bumblebee, and vernal pool tadpole shrimp, as well as large marble butterfly if it is listed or proposed for listing) could occur through various construction activities and permanent loss of approximately 0.05 acre of annual grassland. It is specifically noted that there is an area north of the existing PG&E Newark 230 kV Substation that is potential habitat for vernal pool tadpole shrimp. Occurrences of vernal pool tadpole shrimp have also been mapped near the PG&E Newark 230 kV Substation. Approximately 0.05 acre of potentially suitable habitat for rare bumblebees, vernal pool tadpole shrimp, and large marble butterfly in grasslands habitat would be permanently affected.

Indirect impacts on special-status invertebrate species during construction could include decreased suitability of grassland habitat in the Project's vicinity caused by increased runoff, sedimentation, proliferation of invasive species, increased noise from construction activities and vehicles, and increased human activity.

LSPGC would implement APM BIO-1 (Restoration of Disturbed Areas), APM BIO-3 (Preconstruction Sweeps), APM BIO-6 (Vehicle Speed Limits), APM BIO-9 (WEAP), APM BIO-16 (Special-Status Invertebrate Surveys), APM BIO-17 (Construction Timing Restrictions), Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e: Construction Worker Environmental Awareness Training Program. For PG&Es scope of work, PG&E would implement FP-1 through FP-4, FP-6, FP-7, FP-8, and

FP-10 through FP-16. The combination of these LSPGC APMs, mitigation measures, and PG&E FPs would reduce the Project potential construction impacts to special-status invertebrates to less than significant.

Given that there are over 70 cumulative projects (see Table 3.0-1) within 2 miles of the Project, there is a possibility that at least one cumulative project could have impacts to special-status invertebrates, particularly those that are proposed to be constructed in suitable habitats. For instance, for cumulative projects near the PG&E Newark 230 kV Substation, such as 5780 Cushing Pkwy (cumulative project number 1), impacts to vernal pool tadpole shrimp 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, elicit further environmental reviews. For example, cumulative projects would be subject to measures (e.g., mitigation measures, avoidance and minimization measures) as a result of their respective environmental review processes, or as existing mitigation commitments to avoid or limit their impact to sensitive biological resources, for example, on special-status invertebrates.

Therefore, Project construction, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** related to special-status invertebrates.

> **Mitigation:** Implement Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation:** Through the implementation of the LSPGC APMs, PG&E FPs, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e, 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., steelhead, longfin smelt, and green sturgeon) are not likely because all Project construction impact areas are outside of waterways. Indirect impacts on steelhead, longfin smelt, and green sturgeon during construction could include decreased water quality and habitat suitability in the Project's vicinity caused by spills or leaks into waterways, increased noise from construction activities, and increased human activity.

However, LSPGC would implement APMs and mitigation measures that would reduce potential direct and indirect construction impacts to fish (e.g., steelhead, longfin smelt, and green sturgeon). Potential direct and indirect impacts would be lessened by implementation of APM BIO-1 (Restoration of Disturbed Areas), APM BIO-4 (Demarcation of Sensitive Areas), APM BIO-9 (WEAP), APM BIO-17 (Construction Timing Restrictions), Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e. The combination of these LSPGC APMs and mitigation measures would mitigate the Project's potential impacts to special-status fish to less than significant.

Many of these cumulative projects would occur on developed or previously disturbed land. While it is unlikely that the Project would not have impacts on special-status fish, there is an incremental possibility, as noted above, and, thus, 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 a result of their respective environmental review processes, or as existing mitigation commitments to avoid or limit their impacts to sensitive biological resources, for example, 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 Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation:** Through the implementation of the LSPGC APMs, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e, 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 such as the NWPT, California tiger salamander, and California red-legged frog. Direct impacts could occur as a result of vehicle strikes, grading activities, and noise and vibration effects, among other impacts. In addition, indirect effects on amphibians or NWPT may occur through the introduction of pollutants, the spread of invasive plants in aquatic habitat, and degradation of occupied habitats.

However, LSPGC would implement 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-9 (WEAP), APM BIO-10 (Outdoor Lighting Measures), APM BIO-17 (Construction Timing Restrictions), APM BIO-18 (Special-Status Amphibians Surveys), Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e. For PG&Es scope of work, PG&E would implement FP-1 through FP-4, FP-6, FP-7, FP-8, and FP-10 through FP-16. The combination of these LSPGC APMs, mitigation measures, and PG&E FPs would reduce the Project potential construction impacts to special-status amphibians and reptiles to less than significant.

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 a result of their respective environmental review processes, or as

existing mitigation commitments to avoid or limit their impacts to sensitive biological resources, for example, 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 Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.
>
> **Significant after Mitigation:** Through the implementation of the LSPGC APMs, PG&E FPs, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e, Project construction, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

Special-Status Nesting Birds

Project construction could directly affect special-status birds and bats 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. The Project may also cause indirect construction effects: 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 as a result of vegetation removal or loss, soil compaction, or the introduction of invasive plants.

For LSPGC's scope of work, potential direct impacts on protected nesting birds and roosting bats would be avoided or minimized by implementation of APM BIO-1 (Restoration), APM BIO-3 (Preconstruction Survey), APM BIO-4 (Demarcation of Sensitive Areas), APM BIO-6 (Vehicle Speed Limit), APM BIO-9 (WEAP), APM BIO-11 (Special-Status Bird Surveys), APM BIO-12 (Nesting Bird Protection Measures), and APM BIO-13 (Raptor Surveys). Focused surveys and preconstruction sweeps (APM BIO-3, APM BIO-11, APM BIO-13, and APM BIO-15) would identify any trees or other vegetation that may house nests. These nests would be clearly marked with appropriate buffers and avoided by construction activities (APM BIO-4, APM BIO-12, APM BIO-13, and APM BIO-15). A qualified biological monitor would be present during all construction activities with the potential to affect nesting birds (APM BIO-11, APM BIO-13, and APM BIO-15). In addition, for LSPGC's scope of work, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e would be implemented. For PG&E's scope of work, potential direct impacts to birds would be lessened by implementing PG&E BMP BIO-1: Burrowing Owl, PG& BMP BIO-2: Nesting Birds, and PG&E FP-18.

Indirect impacts would be minimized by implementation of APM BIO-1, APM BIO-9, and APM BIO-10. Also, LSPGC would implement Mitigation Measure 3.1-2, which would minimize the use of outdoor lighting during construction and operations and maintenance. The combination of these LSPGC APMs, mitigation measures, PG&E BMPs, and PG&E FPs would reduce the Project potential construction impacts to special-status nesting birds to less than significant.

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 a result of their respective environmental review processes, or as existing mitigation commitments to avoid or limit their impacts to sensitive biological resources, for example, on special-status 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 Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation:** With implementation of the LSPGC APMs, PG&E BMPs and PG&E FPs, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e, Project construction, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

Salt Marsh Harvest Mouse

Direct impacts on SMHM could result from potential vehicle strikes occurring in these areas during Project construction if individuals disperse from their typical habitat, destruction of habitat during clearing activities, and entrapment in excavations. Although the coastal salt marsh habitat where this species occurs would not be directly affected, construction would take place in upland areas near the coastal salt marsh. Indirect impacts on SMHM during construction could include a temporary reduction in habitat suitability in the Project vicinity caused by noise from construction activities and increased human activity.

For LSPGC's scope of work, the Project's potential direct impacts on SMHM would be avoided or minimized by the implementation of APM BIO-3 (Preconstruction Surveys), APM BIO-4 (Demarcation of Sensitive Areas), APM BIO-6 (Vehicle Speed Limits), APM BIO-7 (SMHM Surveys), APM BIO-8 (Excavation BMPs), and APM BIO-9 (WEAP Training). LSPGC would also implement Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, and Mitigation Measure 3.4-1d, which would ensure that the Project would be conducted in accordance with environmental permit requirements and perform preconstruction clearance surveys, respectively, as described above.

Indirect impacts would be mitigated with the implementation of APM BIO-1 (Restoration of Disturbed Areas), APM BIO-9 (WEAP), and Mitigation Measure 3.4-1e. The combination of these LSPGC APMs and mitigation measures would reduce the Project potential construction impacts to SMHM to less than significant.

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 a result of their respective environmental review processes, or as existing mitigation commitments to avoid or limit their impacts to sensitive biological resources, for example, on SMHM.

Therefore, the Project, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** related to SMHM.

> **Mitigation:** Implement Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation:** With implementation of the LSPGC APMs, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e, Project construction, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

Operations 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 O&M, APM BIO-6 (Vehicle Speed Limits), APM BIO-9 (WEAP Training), and Mitigation Measure 3.4-1e would be implemented. 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), which requires vehicle cleaning before entering natural areas, in addition the LSPGC APMs for potential direct impacts. Through implementation of these LSPGC APMs and mitigation measures, the Project's O&M activities would have a less-than-significant impact on species identified as a candidate, sensitive, or special-status species.

In consideration of the cumulative projects' (Table 3.0-1) O&M activities, there is a possibility that a potential impact could occur on a number of special-status species. The types of development for the cumulative projects include, but are not limited to, residential, commercial, mixed-use, industrial, and utility developments. However, as provided in the discussions above, cumulative projects would have to undergo local departmental review, which would necessitate disclosing proposed construction activities and, in particular, O&M activities. In a case when a cumulative project is anticipated to have potentially significant O&M 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 prior to project commencement.

Therefore, Project O&M, in combination with the cumulative projects, would have a **less-than-significant cumulative impact** related to special-status species.

> **Mitigation:** Implement Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation:** With implementation of the LSPGC APMs, and Mitigation Measure 3.4-1e, Project O&M, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

3.4.7.2 Criterion b)

Impact C.3.4-2: 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. (*Less than Significant with Mitigation*)

Riparian habitat and other sensitive habitat areas, including riparian vegetation, wetlands, and vernal pools, are present within the Project area. Construction impacts on riparian habitat would include 0.12 acre of temporary impacts and 0.005 acre (217.8 square feet) of permanent impacts. Additionally, it is unlikely that Project operations would impact riparian habitats, particularly since there are no proposed groundwater disturbance activities where riparian habitat occurs for O&M.

Wetlands and other aquatic resources, including vernal pools, would be delineated before construction as specified in APM BIO-19 (Wetland and Aquatic Resources Delineations), and any construction impacts would be avoided to the extent practicable with the implementation of APM BIO-4 (Sensitive Area Demarcation) and Mitigation Measure 3.4-1d. All temporary impacts on sensitive vegetation communities would be restored in accordance with APM BIO-1 and Mitigation Measure 3.4-1b. Implementation of these measures would reduce the Project's impacts to a less-than-significant level.

As shown in Figure 3.0-1, there are several cumulative projects that would occur in close proximity to the Project and on a similar timeline. Many of these cumulative projects would occur on developed or previously disturbed land, such as 7 Top Golf Drive. 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 a result of their respective environmental review processes, or as existing mitigation commitments to avoid or limit their impacts to 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 to riparian habitat or other identified habitats would not be cumulatively considerable. Therefore, with the implementation of the LSPGC APMs and Mitigation Measure 3.4-1b, the Project's cumulative impact on riparian habitat or other identified habitats would be **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.4-1b.
>
> **Significance after Mitigation:** With implementation of the LSPGC APMs and Mitigation Measure 3.4-1b, 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 C.3.4-3: 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 with Mitigation*)

Project construction would result in temporary impacts on approximately 6.7 acres of waters (wastewater treatment pond) and 0.54 acre of wetlands, including 0.02 acre of floodplain and 0.09 acre of vernal pools north of the PG&E Newark 230 kV Substation. However, the wetland delineation prepared for the Project found that no permanent impacts on wetlands would result from Project implementation (LSPGC 2025). There are temporary impacts anticipated as a result of vegetation clearing for pole construction and for stringing of conductor at proposed overhead structures. Project O&M would not result in a substantial adverse effect on waters of the United States or waters of the state.

To minimize temporary impacts at the PG&E Newark 230 kV Substation, PG&E would implement FP-1 through FP-16, which would avoid vernal pools to the extent practicable, implement spill prevent BMPs, demarcate sensitive areas, train to educate workers about vernal pools, and restore work areas to preconstruction conditions, among other measures. LSPGC would also implement APM BIO-1 (Restoration of Disturbed Areas) and Mitigation Measure 3.4-1b, which would require restoration of disturbed areas to preconstruction conditions and ensure that LSPGC obtain all required environmental permits as well as preparation of a Restoration Plan, respectively. Implementation of these measures would reduce the Project's impact to a less-than-significant level.

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 a result of their respective environmental review processes, or as existing mitigation commitments to avoid or limit their impacts to 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 to waters of the United States or waters of the state would not be cumulatively considerable. Therefore, with the implementation of the LSPGC APM, PG&E FPs, and Mitigation Measure 3.4-1b, the Project's cumulative impact on waters of the United States or waters of the state would be **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.4-1b.
>
> **Significance after Mitigation:** With implementation of the LSPGC APM and Mitigation Measure 3.4-1b, the Project, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

3.4.7.4 Criterion d)

Impact C.3.4-4: 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 in the cities and towns of Alameda and Santa Clara counties, and this is also generally true of the cumulative projects. The high degree of residential, commercial, and industrial development in these areas substantially fragments habitat; as a result, wildlife movement is limited. Although these developed areas do not provide corridors for wildlife movement, they are interspersed with numerous riparian corridors and waterways used by terrestrial wildlife. Specifically, as discussed further in Impact 3.4-1, Project construction impacts could occur at watersheds (e.g., Guadalupe River system), natural habitats adjacent to streams (from horizontal boring), and the Don Edward NWR.

Project operations are unlikely to affect aquatic species' movement and nursery areas. Maintenance activities would avoid stream corridors and aquatic species' habitat. Therefore, the impact of Project O&M would be less than significant.

LSPGC would implement APM BIO-1 (Restoration of Disturbed Areas), APM BIO-4 (Sensitive Area Demarcation), APM BIO-6 (Vehicle Speed Limits), APM BIO-9 (WEAP), APM BIO-10 (Outdoor Lighting Measures), APM BIO-17 (Construction Timing Restrictions), Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.

Impacts on wildlife nursery sites are possible at the PG&E Newark 230 kV Substation. As appropriate, PG&E would implement FP-1 through FP-16, which would include measure such as erosion and sediment control, spill prevention, WEAP training, and construction timing restrictions, among other measures. Implementation of these measures would reduce the Project's potential impacts related to 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, to less than significant.

When considered together, the Project's contribution to cumulative impacts to this criterion would not be cumulatively considerable. Therefore, with the implementation of the LSPGC APMs, PG&E FPs, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e, the Project's cumulative impact would be **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e.
>
> **Significance after Mitigation:** With implementation of the LSPGC APMs, PG&E FPs and Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1c, Mitigation Measure 3.4-1d, and Mitigation Measure 3.4-1e, 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)

Project operations and maintenance would entail periodic maintenance of the transmission lines, the nature of which would not affect sensitive biological resources. Therefore, Project operations would not be cumulatively considerable, and there would be no cumulative impact. (*No Impact*)

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, and the 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 Project has been designed to be consistent with the general plans and policies of the cities of Fremont, Milpitas, San José, and Santa Clara. The substation modifications would occur entirely on PG&E or SVP property. As the Project would remove approximately 16 trees, Mitigation Measure 3.4-5: Compliance with Local Tree Ordinances would be implemented, which would require LSPGC to coordinate with the cities of Fremont, Milpitas, San José, and Santa Clara to obtain permission to remove street trees and any required permits for the removal of existing trees. Therefore, the Project's impact on local policies or ordinances would be less than significant.

As discussed above, 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 a result of their respective environmental review processes, or as existing mitigation commitments to avoid or limit their impacts to local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.

However, given these considerations, the Project's nominal contribution to cumulative impacts to this criterion would not be cumulatively considerable. Therefore, with the implementation of the 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 Mitigation Measure 3.4-5.
>
> **Significance after Mitigation:** With implementation of 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)

Project O&M 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, therefore, O&M of the Project would not be cumulatively considerable. (*No Impact*)

Impact C.3.4-6: Project construction, in combination with the cumulative projects, 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. (*Less than Significant*)

As discussed in Impact 3.4-6, Project implementation would not conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP, and impacts would be less than significant. 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 habitat conservation plan, the proponent of the cumulative project would be expected to consult with the appropriate agencies to remediate such conflict.

However, given these considerations, the Project's nominal contribution 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: None required.

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 indicated in Chapter 2, the Newark to NRS 230 kV AC transmission line would include approximately 10 miles of underground transmission line and 2 miles of overhead transmission line. The Project would also result in the construction of 15 new aboveground structures associated with the construction of the overhead transmission line. Therefore, the approximately two miles of new aboveground transmission line and associated aboveground structures could increase the risk of collision and electrocution for birds and bats.

The risks of collision and electrocution associated with this new construction would be minimized by using appropriate APLIC methods, which have been incorporated into the Project design. Further, Project construction workers would also receive WEAP training (APM BIO-9 and Mitigation Measure 3.4-1e for LSPGC work; or PG&E FP-1 and PG&E BMP BIO-2 for PG&E work) with information on minimizing impacts on migratory birds and bats and avoiding impacts on nests and roosts. Implementation of these measures would reduce the Project's potential impacts related to an increased risk of collision or electrocution for birds or bats to less than significant.

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, Tasman East (Ensemble) (cumulative project number 47), 3000 Patrick Henry Drive (cumulative project number 61), and Cambria Hotel (cumulative project number 69). 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: Implement Mitigation Measure 3.4-1e.

Significance after Mitigation: Implementation of LSPGC APMs, PG&E BMPs, PG&E FPs, and Mitigation Measure 3.4-1e would reduce cumulative impacts related to this criterion to less than significant.

3.4.8 References

APLIC (Avian Power Line Interaction Committee). 2006. *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006.* Available: https://www.nrc.gov/docs/ml1224/ml12243a391.pdf. Accessed February 18, 2025.

APLIC (Avian Power Line Interaction Committee). 2012. *Reducing Avian Collisions with Power Lines: The State of the Art in 2012*. Available: https://www.aplic.org/uploads/files/15518/Reducing_Avian_Collisions_2012watermarkLR.pdf. Accessed February 18, 2025.

Calflora. 2025. Calflora Database. Available: https://www.calflora.org/. Accessed January 3, 2025.

California Public Utilities Commission (CPUC). 2019. *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments*. Available: https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/c/6442463239-ceqa-pre-filing-guidelines-pea-checklist-nov-2019.pdf. Accessed February 18, 2025.

CDFW (California Department of Fish and Wildlife). 2024a. Rarefind. California Natural Diversity Database (CNDDB) query for the U.S. Geological Survey Milpitas, San José West, Mountain View, and Cupertino 7.5-minute topographic quadrangles. Accessed November 29, 2024.

CDFW (California Department of Fish and Wildlife). 2024b. Natural Communities. Available: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities/Background. Accessed November 2024.

CDFW (California Department of Fish and Wildlife). 2018a. *California Department of Fish and Wildlife and California Attorney General Xavier Becerra Advisory: Affirming California's Protections for Migratory Birds.* November 29, 2018. Available: https://oag.ca.gov/system/files/attachments/press-docs/20181129mbta-advisory3.pdf. Accessed February 18, 2025.

CDFW (California Department of Fish and Wildlife). 2018b. *Protocols for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Communities*. March 20.

Chan, Y., and H. Spautz. 2008. "Alameda Song Sparrow (*Melospiza melodia pusillula*)." In *California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California*, ed. W.D. Shuford and T. Gardali. Studies of Western Birds No. 1. Camarillo and Sacramento, California: Western Field Ornithologists and California Department of Fish and Game.

City of Fremont. 2011. *City of Fremont General Plan*. Adopted December 2011. Chapter 3, "Mobility." Available: https://fremont.gov/home/showpublisheddocument/779/637750630784670000. Accessed February 2024.

City of Fremont. 2024. Chapter 12.30, Maintenance of Street Trees and Sidewalks, Article I, Regulation of Street Trees. Available: https://www.codepublishing.com/CA/Fremont/#!/html/Fremont12/Fremont1230.html. Accessed February 2024.

City of Milpitas. 2021. *General Plan 2040 City of Milpitas*. Adopted March 9, 2021. Available: https://www.milpitas.gov/DocumentCenter/View/1164/Circulation-PDF?bidId=. Accessed November 11, 2024.

City of Milpitas. 2024. Tree Maintenance and Removal. Available: https://www.milpitas.gov/639/Tree-Maintenance-Removal. Accessed November 11, 2024.

City of San José. 2024a. *Envision San José 2040 General Plan.* Adopted November 1, 2011; as amended on October 24, 2024. Available: https://www.sanjoseca.gov/home/showpublisheddocument/22359/63792874439933 0000. Accessed February 2024.

City of San José. 2024b. Tree Removal Permits. Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/tree-removal-permits. Accessed February 2024.

City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan.* Adopted on November 16, 2010. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed December 2023.

City of Santa Clara. 2023. Santa Clara City Code: Chapter 12.35, Trees and Shrubs. Passed October 10, 2023. Available: https://www.codepublishing.com/CA/SantaClara/html/SantaClara12/SantaClara1235.html. Accessed February 2024.

CNPS (California Native Plant Society). 2024. A Manual of California Vegetation Online. Available: https://vegetation.cnps.org/. Accessed January 2025.

CNPS (California Native Plant Society). 2025. CNPS Rare Plant Inventory (online edition, v. 9.5.1). Available: https://www.rareplants.cnps.org. Accessed January 2025.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available:

https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

Davis, J.N., and C.A. Niemela. 2008. "Northern Harrier (*Circus cyaneus*)." In *California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California*, ed. W.D. Shuford and T. Gardali. Studies of Western Birds No. 1. Camarillo and Sacramento, CA: Western Field Ornithologists and California Department of Fish and Game.

Fukushima, L., and E.W. Lesh, 1998. "Adult and Juvenile Anadromous Salmonid Migration Timing in California Streams." *California Department of Fish and Game* 84(3):133–145.

Gardali, T., and J. Evens. 2008. "San Francisco Common Yellowthroat (*Geothlypis trichas sinuosa*)." In *California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California,* ed. W.D. Shuford and T. Gardali. Studies of Western Birds No. 1. Camarillo and Sacramento, CA: Western Field Ornithologists and California Department of Fish and Game.

Gelhaus, A. 2021. "Milpitas Eagle Family Makes Fifth Return to Nest." *The Mercury News*, May 27, 2021. Available: https://www.mercurynews.com/2021/05/23/milpitas-eagle-family-makes-fifth-return-to-nest/. Accessed February 18, 2025.

Goals Project. 2000. *Baylands Ecosystem Species and Community Profiles: Life Histories and Environmental Requirements of Key Plants, Fish and Wildlife.* Prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project. Ed. P.R. Olofson. Oakland, CA: San Francisco Bay Regional Water Quality Control Board.

Gochfeld, M., J. Burger, and K.L. Lefevre. 2020. "Black Skimmer (*Rynchops niger*), version 1.0." In *Birds of the World,* ed. S.M. Billerman. Ithaca, NY: Cornell Lab of Ornithology. Available: https://doi.org/10.2173/bow.blkski.01. Accessed January 16, 2025.

iNaturalist. 2025. iNaturalist Database. Research-grade Observations. Available: https://www.inaturalist.org. Accessed January 2025.

IEP (Interagency Ecological Program for the San Francisco Bay Estuary). 2014. San Francisco Bay Study, 2010–2014. Unpublished Raw Mid-Water and Otter Trawl Data.

Leidy, R.A. 2007. *Ecology, Assemblage Structure, Distribution, and Status of Steelhead/Rainbow Trout (*Oncorhynchus mykiss*) in Streams of the San Francisco Estuary, California.* Oakland, CA: Center for Ecosystem Management and Restoration.

Leidy, R.A., G.S. Becker, and B.N. Harvey. 2005. *Historical Distribution and Current Status of Steelhead/Rainbow Trout (*Oncorhynchus mykiss*) in Streams of the San Francisco Estuary, California.* Oakland, CA: Center for Ecosystem Management and Restoration.

LSPGC (LS Power Grid California, LLC). 2025. *Proponent's Environmental Assessment for LS Power Grid California, LLC's Power the South Bay Project.* May 2024. Amended February 28, 2025. Available: https://ia.cpuc.ca.gov/environment/info/esa/psb/pdfs/Filed_PEA.pdf. Accessed November 4, 2024.

Lewis, L.S., M. Willmes, A. Barros, P.K. Crain, and J.A. Hobbs. 2020. "Newly Discovered Spawning and Recruitment of Threatened Longfin Smelt in Restored and Underexplored Tidal Wetlands." *Ecology* 101(1):2020.

Moyle, P.B. 2002. *Inland Fishes of California, Revised and Expanded*. University of California Press.

Moyle, P.B., R.M. Yoshiyama, J.E. Williams, and E.D. Wikramanayake. 1995. *Fish Species of Special Concern in California.* Second edition. Final report to California Department of Fish and Game, Contract 2128IF.

Nelson-Embry, S. 2023. "Big Junior, An Alameda Bald Eagle's Story." *Alameda Post*, March 24, 2023. Available: https://alamedapost.com/features/alameda-life/big-junior-an-alameda-bald-eagles-story/. Accessed January 14, 2025.

OEI (Olofson Environmental, Inc.). 2016. *California Ridgway's Rail Surveys for the San Francisco Estuary Invasive Spartina Project 2016.* Report to The State Coastal Conservancy. November 16, 2016.

OEI (Olofson Environmental, Inc.). 2023. *2023 California Ridgway's Rail Surveys for the San Francisco Estuary Invasive Spartina Project.* Report to The State Coastal Conservancy. December 4, 2023.

PG&E (Pacific Gas and Electric Company). 2017. *PG&E's San Francisco Bay Area Operations and Maintenance Habitat Conservation Plan.* Available: https://ecos.fws.gov/docs/plan_documents/thcp/thcp_2897.pdf. Accessed February 18, 2025.

Riparian Habitat Joint Venture. 2004. *The Riparian Bird Conservation Plan: A Strategy for Reversing the Decline of Riparian Associated Birds in California, Version 2.0*. California Partners in Flight. Available: http://www.elkhornsloughctp.org/uploads/files/1381276129Riparain%20Joint%20Venture%202004%20Riparian_Bird_Conservation_Plan.pdf. Accessed February 18, 2024.

Santa Clara Valley Habitat Agency. 2024. *Santa Clara Valley Habitat Plan Annual Report FY2022–2023.* April 2024. Available: https://www.scv-habitatagency.org/DocumentCenter/View/1977/SCVHA_2022-2023_AR. Accessed February 18, 2024.

Santa Clara Valley Habitat Agency. 2012. *Santa Clara Valley Habitat Plan, Figure 9-2: Land Cover Types and Fee Zones*. Prepared by ICF International, Inc. Available: https://scv-habitatagency.org/178/Santa-Clara-Valley-Habitat-Plan. Accessed February 18, 2025.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation, Second Edition*. Sacramento: California Native Plant Society.

Shapovalov, L., and A.C. Taft. 1954. *The Life Histories of the Steelhead Rainbow Trout and Silver Salmon.* California Department of Fish and Game, Fish Bulletin No. 98.

Smith, K.R., and D.A. Kelt. 2019. "Waterfowl Management and the Flexible Diet of an Endangered Rodent." *Journal of Wildlife Management* 83:1687–1699.

Spautz, Nur, and Stralberg. 2005. *California Black Rail (*Laterallus jamaicensis coturniculus*) Distribution and Abundance in Relation to Habitat and Landscape Features in the San Francisco Bay Estuary*. Available: https://www.fs.usda.gov/psw/publications/documents/psw_gtr191/psw_gtr191_0465-0468_spautz.pdf. Accessed February 18, 2025.

Thomson, R.C., A.N. Wright, and H.B. Shaffer. 2016. *California Amphibian and Reptile Species of Special Concern.* Oakland: University of California Press. Available: https://wildlife.ca.gov/Conservation/SSC/Amphibians-Reptiles. Accessed February 18, 2025.

Tsao, D.C., R.E. Melcer Jr., and M. Bradbury. 2015. "Distribution and Habitat Associations of California Black Rail (*Laterallus jamaicensis cortuniculus*) in the Sacramento–San Joaquin Delta." *San Francisco Estuary and Watershed Science* 13(4). Available: https://escholarship.org/uc/item/6cn2h9tt. Accessed February 18, 2025.

USDOI (U.S. Department of the Interior). 2017. *The Migratory Bird Treaty Act Does Not Prohibit Incidental Take.* Office of the Solicitor, Memorandum (M-37050) to Secretary, Deputy Secretary, Assistant Secretary for Land and Minerals Management, and Assistant Secretary for Fish and Wildlife and Parks Department, December 22, 2017.

USFWS (U.S. Fish and Wildlife Service). 2024a. National Wetlands Inventory, Surface Waters, and Wetlands. Available: https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed November 2024.

USFWS (U.S. Fish and Wildlife Service). 2024b. Information for Planning and Consultation (IPaC) Resource List: Power the South Bay Project. Available: https://ecos.fws.gov/IPaC/. Accessed December 2024.

USFWS (U.S. Fish and Wildlife Service). 2021. *Birds of Coservation Concern 2021*. Available: https://www.fws.gov/sites/default/files/documents/birds-of-conservation-concern-2021.pdf. Accessed February 18. 2025.

USFWS (U.S. Fish and Wildlife Service). 2017. *Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (*Ambystoma californiense*).* Pacific Southwest Region, Sacramento, CA.

USFWS (U.S. Fish and Wildlife Service). 2013. *Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California.* Sacramento, CA.

USFWS (U.S. Fish and Wildlife Service). 2012. *Don Edwards San Francisco Bay National Wildlife Refuge*. Available: https://iris.fws.gov/APPS/ServCat/DownloadFile/205121. Accessed February 18, 2025.

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3.5 Cultural Resources

This section evaluates the impact 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 presented are based in part on the cultural resources presented in the *Cultural Resource Technical Report for the Power the South Bay Project* prepared by PanGIS Inc. (2024).

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 B**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to cultural resources.

3.5.1 Definitions

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 on, 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." CEQA 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 significant 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., building lacking structural elements or structure lacking 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 historical and pre-contact remnants of past cultures, typically recorded as sites or districts. Historical 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 lithic scatters, ceramic scatters, quarries, habitation sites, temporary camps, ceremonial sites, and trails.

[1] Please see Section 3.5.2, *Regulatory Setting*, for information about local register criteria.

3.5.2 Environmental Setting

The Project area is located within the Santa Clara Valley, specifically in the cities of Fremont, Milpitas, San José, and Santa Clara, as well as within Alameda and Santa Clara counties. The Project area extends from the PG&E Newark 230-kilovolt (kV) Substation in the north to the SVP Northern Receiving Station (NRS) 230 kV Substation in the south, running adjacent to the southeastern shoreline of the San Francisco Bay. The Project area is predominately developed with urban and suburban construction, infrastructure, and land use, with the remaining portions containing undeveloped annual grasslands, wetlands, and riparian habitats.

The underlying soil of the Project area consists of Holocene-age (11,000–12,000 years ago) and Pleistocene-age (120,000–126,000 years ago) alluvial tidal and stream deposits. These deposits are dominated by Alameda County Clear Lake, Pescadero, Reyes clays, Marvin silt loam, Santa Clara County Campbell silt loam, Embarcadero silty clay loam, and Urbanland-Campbell Complex (USGS 2006; NRCS 2024). San Francisco Bay's once extensive tidal marshes, wetland meadows, and oak savannahs would have contained dense tule, rushes, sedges, grasses, hard woodlands, and other plant species (Beller et al. 2010). These resource-rich environments supported a variety of aquatic and terrestrial fauna.

3.5.2.1 Pre-Contact Setting

San Francisco Bay Area

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) provide a framework for interpreting the San Francisco Bay Area by dividing human history in California into three periods: the Early Period, the Middle Period, and the Late Period. In many parts of California, four periods are defined, the fourth being the Paleoindian Period (11,500–8,000 B.C.), characterized by big-game hunters occupying broad geographic areas. Evidence of human habitation during the Paleoindian Period has not yet been discovered in the San Francisco Bay Area. 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.

During the Early Period (Lower Archaic, 8,000–3,500 B.C.), geographic mobility continued from the Paleoindian Period and is characterized by the milling slab and handstone as well as large wide-stemmed and leaf-shaped projectile points. Cut shell beads and the mortar and pestle are first documented in burials during the Early Period (Middle Archaic, 3,500–500 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 Upper Middle Period (Late Upper Archaic, A.D. 430–1,050), geographic mobility may have continued. However, groups began to establish longer-term base camps in localities where they could exploit a more diverse range of resources. The first rich black middens are recorded from this period. The addition of milling tools, obsidian, and chert concave-base projectile points and 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. During the Initial Late Period (Lower Emergent, A.D. 1,050–1,550), social complexity developed toward 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.

3.5.2.2 Ethnographic Setting

Ohlone

The Project is located on the ancestral lands of the Chochenyo-speaking and Tamyen (or Tamien)-speaking Ohlone bands, near the areas ethnographically associated with the East Bay and Santa Clara groups (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 Chochenyo speakers reached 2,000, and the Tamyen speakers reached 1,200, substantially more than the typical size of other Ohlone groups, which ranged from 40–200 members. During this year, groups were documented to have lived in approximately 50 separate and politically autonomous nations. Economically, the Ohlone engaged in hunting and gathering. Their territory encompassed both coastal and open valley environments that contained a wide variety of resources, including grass seeds, acorns, bulbs, tubers, bears, deer, elk, antelope, a variety of bird species, rabbits, and other small mammals. The Ohlone acknowledged private ownership of goods and songs and village ownership of rights to land or natural resources; they appear to have aggressively protected their village territories, requiring monetary payment for access rights in the form of clamshell beads and even shooting trespassers with a bow and arrows if caught.

The Ohlone encountered Spanish explorers as early as the 17th century. Exposure to the Spanish increased during the mid-to-late 18th century when seven missions were constructed around the San Francisco Bay Area on Ohlone lands (Levy 1978). During the Mission Period (1770–1835), native populations, especially along the California coast, were brought—usually by force—to the missions by the Spanish missionaries to provide labor. The missionization caused the Ohlone people to experience cataclysmic changes in almost all areas of their lives, particularly a massive decline in population caused by introduced diseases and a declining birth rate, resulting in large part from colonization by the Spanish missionaries.

Following 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 members of the public. The Project area was once a part of the land grants Rancho Agua Caliente, Rancho Rincon de los Esteros, Rancho Ulistac, and the lands of Mission San José (Arbuckle and Rambo 1968). These land grants, referred to as ranchos, were primarily used for livestock raising, processing, and gathering places (Bean and Rawls 1998). Those Ohlone who survived the mission and rancho periods sought sanctuary throughout the San Francisco Bay

Area, forming communities where their cultural practices, beliefs, and fight for historical and cultural preservation continue today.

3.5.2.3 Historical Setting

Regional

Spanish explorers in the late 1760s and 1770s were the first Europeans to traverse the Santa Clara Valley. José Francisco Ortega, a soldier in the exploring party of Gaspar de Portola and Juan Crespi, made the first recorded crossing of the Guadalupe River in the vicinity of present-day Alviso during November 1769, but no clear record remains of his exact route and his impressions of the area (Beck and Haase 1974; NPS 2008). Juan Bautista de Anza and Pedro Font led the next 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. Anza recorded three native villages in the vicinity of his campsite, each reportedly composed of approximately 70 persons. Anza noted some "paths and trails" heading to the south and concluded that the same Native American Tribe dwelled throughout the entire valley (Bolton 1930).

After an initial period of exploration, the Spanish focused on the founding of presidios, missions, and secular towns with the land held by the Crown. Following the favorable reports by Anza and Font, the Spanish moved to occupy the lands in the Santa Clara Valley founding both Pueblo de San José and Mission Santa Clara de Asis in 1777. 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 into the 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 Ohlone territory, would have been the mission with the greatest impact on the aboriginal population living in the Santa Clara Valley.

Alameda County

In 1853, Alameda County, which is named after Alameda Creek with its once dense poplar tree groves, was founded. The county was formed from lands acquired from Contra Costa and Santa Clara counties. The original county seat was in Alvarado, a former settlement that is now part of Union City; however, due to earthquakes and shifts in population, the county seat was permanently moved to Oakland in 1873. Following the rancho period, the county, like that of the surrounding Contra Costa and Santa Clara counties, predominately comprised farm and grazing land. Aside from the diverse fruits, vegetables, and nut crops that were grown and sold from the county, ornamental plants and flower cultivation also prospered. The eastern shoreline became a boatbuilding, shipping, and fishing hub. With the development of the ferry, trolley car, and railroad systems during the late 19th and early 20th century, those working in the city could travel daily to Alameda County. Thus, the San Francisco Bay Area's first commuters were born. Public transportation also enabled outdoor recreation and sporting events to be held within the county, which attracted visitors from all around. Starting in the late 1920s, land use within the county began to shift. Alameda Airport, which had one runway, was renamed Naval Air Station Alameda

after the government's purchase in the early 1930s. Industrial work, which had traditionally had a footing in the county with its factories, canning, sawmills, tanneries, and brewery operations, rapidly expanded during World War II. Wartime employment opportunities resulted in the county population nearly doubling during this period. To accommodate this growing population, housing development became a priority. Suburban developments began to spring up, initially near business operations, then expanded east and south. Additionally, the construction of the Bay Bridge along with the use of funds established with the California State Highway Act of 1909, contributed to the rapid development in Alameda County.

Santa Clara County

Santa Clara County, one of the original counties of California, was formed in 1850. San José has remained the county seat since statehood. Agriculture became a major industry in Santa Clara County. Santa Clara County's population rapidly increased due to the Gold Rush, followed later by the construction of the railroad to San Francisco in 1864 and the transcontinental railroad's completion in 1869. Alviso, located north of the Project area, 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. The fertile Santa Clara Valley and the region's desirable climate attracted farmers and ranchers with a variety of agricultural interests (Thompson and West 1876). Cattle ranching in rural areas was a major industry in the years following California's statehood. Wheat, barley, and oats were important crops in the area. Later, fruit orchards replaced many grain fields at the turn of the 20th century. During the 1930s, the valley became the major food source, growing and distributing a quarter of the world's agricultural products. Vast fruit orchards eventually replaced row crops. In the early 20th century, the Bayside Canning Company, the third-largest cannery in California, brought money and workers to the area. Later during World War II, the agricultural industrial employment in canneries and food packing factories led to a suburban construction boom.

3.5.3 Regulatory Setting

3.5.3.1 Federal

Although no federal statutes, regulations, plans, or policies related to cultural resources are 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, as amended (U.S. Code Title 54, Section 300101 et seq.), and its implementing regulations (Code of Federal Regulations Title 36, Part 800 [36 CFR 800]). Section 106 of the National Historic Preservation Act requires a federal agency with jurisdiction over a proposed federal action (referred to as an *undertaking*) to consider 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 800.16[*l*][1]). The implementing regulations (36 CFR 800) describe the process for identifying and evaluating historic properties, for 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 consider the effects of an undertaking on historic properties before approval.

The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Officer, federally recognized Native American 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 must also provide an opportunity for public involvement (36 CFR 800.1[a]). Consultation with Native American Tribes regarding issues related to Section 106 and other authorities (such as NEPA and Executive Order 13007) must recognize the government-to-government relationship between the federal government and Native American Tribes, as set forth in Executive Order 13175 (*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 National Historic Preservation Act of 1966 as an "authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2) (NRHP 2025) 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, prehistoric 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 National Historic Preservation Act.

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.

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 listing in 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).

3.5.3.2 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 on the California Register (PRC Section 5024.1) or qualifies as a "unique historical resource" (PRC Section 21083.2).

To be eligible for listing on 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 on 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 on the California Register.

Impact assessments under CEQA consider only historically significant cultural resources. These are resources that meet CEQA criteria for eligibility to the California Register (historical resources) or qualify as unique archaeological resources, as detailed below. Impacts on resources that do not meet these criteria are not considered in CEQA impact assessments. Similarly, for projects with federal involvement, only resources that meet the eligibility criteria for the National Register receive further consideration in impact analyses.

CEQA considers archaeological resources as an intrinsic part of the physical environment. Therefore, CEQA requires that any project's potential to adversely affect archaeological resources be analyzed (CEQA Section 21083.2). For projects that may have an adverse effect on a significant archaeological resource, CEQA requires the preparation of an environmental impact report (CEQA Section 21083.2 and CEQA Guidelines Section 15065). CEQA recognizes two different categories of significant archaeological resources: "unique" archaeological resource (CEQA Section 21083.2) and an archaeological resource that qualifies as a "historical resource" under CEQA (CEQA Section 21084.1 and CEQA Guidelines Section 15064.5).

Assembly Bill 52

A summary of the Assembly Bill 52 statute is provided in Section 3.18, *Tribal Cultural Resources*.

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 (i.e., 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 would become involved in the event that Native American human remains are identified during Project 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 procedures 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 (i.e., stone burial mound). If Native American human remains are 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, this regulation would apply.

3.5.3.3 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 cultural resources that would otherwise be relevant to the Project and alternatives are described below.

Alameda County

Alameda County's Historic Preservation Ordinance, adopted in 2012, codified the definition and maintenance of the Alameda County Register of Historic Resources, how properties can be added or removed from the county register, and what activities may be subject to review (Alameda County 2012).

Alameda County's General Plan consists of several documents that discuss specific geographic areas in detail in various parts of the county. For unincorporated cities that the county general plan does not cover, city-specific general plans have been established. Applicable policies and implementation guidance are listed below.

City of Fremont General Plan

The *Community Character Element* of the City of Fremont General Plan includes the following goals, policies, and implementation measures pertaining to cultural resources that are applicable to the Project (City of Fremont 2011):

Goal 4-5: Minimize the visual and environmental impacts of utilities and infrastructure projects to preserve the city's aesthetic and environmental quality.

Implementation 4-5.3B: Impacts of Utilities. Review planned utility undergrounding, sidewalk repair, and other infrastructure projects to avoid unnecessary removal of important design features, trees, or historic features.

Goal 4-6: Conservation and enhancement of Fremont's historic sites, buildings, structures, objects, and landscapes into the 21st Century and beyond.

Policy 4-6.1: Protection of Historic Resources. Identify, preserve, protect, and maintain buildings, structures, objects, sites and districts that are reminders of past eras, events, and persons important in local, state, or national history.

Implementation 4-6.1.A: Demolition, Alteration or Relocation of Historic Resources. Evaluate all applications for demolition, alteration or relocation of buildings, structures or objects constructed prior to 1955 to determine if there is sufficient significance and integrity to merit classification as a Potential Fremont Register Resource or formal designation as a Fremont Register Resource.

Implementation 4-6.1. D: Fremont Register. Maintain the Fremont Register as the official list of Fremont Historic Register Resources. Update the list as appropriate and maintain a GIS database of Register resources.

Policy 4-6.4: Historic Settings and Landscapes. Identify and pursue measures to protect the historic settings and landscapes that contribute to Fremont's historic resources. The City shall review proposed development and redevelopment projects to ensure their compatibility with existing historic settings. In particular, such review shall address the scale, massing, and on-site improvements of proposed development as it relates to historic settings. This policy recognizes that the historic value of a site may extend beyond structures and include the landscape and setting around a structure. This could include heritage trees, gardens, historic plantings, significant landscape elements, fences and outbuildings, and other character-defining features.

Policy 4-6.6: Historic Preservation Regulations. Observe local, State, and federal historic preservation laws, regulations, and codes to ensure conservation of Fremont's significant historic resources. These laws include but are not limited to Mills Act Historic Property contracts, the California Historical Building Code, and State laws related to archaeological resources.

Policy 4-6.10: Protection of Native American Remains. Coordinate with representatives of local Native American organizations to ensure the protection of Native American resources and to follow appropriate mitigation, preservation, and recovery measures in the event such resources could be impacted by development.

City of Fremont Historic Resources Ordinance

Chapter 18.175 of the City of Fremont Municipal Code outlines Fremont's Historic Resources Ordinance (City of Fremont 2007). The purpose of the Historic Resources Ordinance is to safeguard the City's heritage by encouraging the protection of historic resources that have important associations with past eras, events, and persons important in national, state, or local history, or which provide significant examples of architectural styles of the past or are historical architectural resources. Historic resources may also include structures that are unique and irreplaceable assets to the City and its neighborhoods, or which provide examples of the physical surroundings in which past generations lived. Components of the Historic Resources Ordinance include its purpose and intent; overview of the historical architecture review board; Fremont register of historic resources; historic overlay districts; evaluation of buildings, structures, or objects; approach to historic preservation; and procedures for permitting minor alterations or demolition of historic resources.

City of Milpitas General Plan

The *Conservation and Sustainability Element* of the City of Milpitas General Plan includes the following goals, policies, and actions pertaining to cultural resources that are applicable to the Project (City of Milpitas 2021):

Goal CD 1: Strengthen Milpitas' identity and sense of place by reinforcing the community's distinctive, high-quality community form, natural landscape, and character.

***Policy CD 1-4*:** Recognize, enhance celebrate, and preserve, where possible, natural features and ecosystems, and protect cultural and historic resources.

Goal CON 4: Preserve and protect prehistoric, historical, archaeological, and paleontological resources in Milpitas.

***Policy CON 4-1*:** Review proposed developments and work in conjunction with the California Historical Resources Information System, Northwest Information Center at Sonoma State University, to determine whether project areas contain known archaeological resources, either prehistoric and/or historic-era, or have the potential for such resources.

***Policy CON 4-2*:** If found during construction, ensure that human remains are treated with sensitivity and dignity and ensure compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98.

***Policy CON 4-3*:** Work with Native American representatives to identify and appropriately address, through avoidance or mitigation, impacts to Native American cultural resources and sacred sites during the development review process.

***Policy CON 4-4*:** Consistent with State, local, and tribal intergovernmental consultation requirements such as SB [Senate Bill] 18 and AB [Assembly Bill] 52, the City shall consult as necessary with Native American tribes that may be interested in proposed new development and land use policy changes.

Action CON-4a: Require a cultural and archaeological survey prior to approval of any project which would require excavation in an area that is sensitive for cultural or archaeological resources. If significant cultural or archaeological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as documentation and conservation, to reduce adverse impacts to the resource.

Action CON-4b: Require all development, infrastructure, and other ground-disturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources or human remains:

- If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the Planning Department shall be notified, the resources shall be examined by a qualified archaeologist, paleontologist, or historian for appropriate protection and preservation measures; and work may only resume when appropriate protections are in place and have been approved by the Planning Department.
- If human remains are discovered during any ground disturbing activity, work shall stop until the Planning Department and the County Coroner have been contacted; if the human remains are determined to be of Native American origin, the Native American Heritage Commission (NAHC) and the most likely descendants have been consulted; and work may only resume when appropriate measures have been taken and approved by the Planning Department.

Goal CON 5: Protect and enhance historic resources- including places, buildings, or landmarks with historic, architectural, cultural, and/or aesthetic significance.

***Policy CON 5-1*:** Protect significant historic resources and use these resources to promote a sense of place and history in Milpitas through implementation of the Milpitas Cultural Resources Preservation Program (Municipal Code, Title XI, Chapter 4), the Conceptual

Historic Resources Master Plan, the conservation and preservation of the City's historical collection at the Milpitas Community Museum, and other applicable codes, regulations, and area plans.

City of Milpitas Historic Resources Ordinance

Title XI, Chapter 4 of the City of Milpitas Municipal Code provides the City's Cultural Resources Preservation Program (City of Milpitas 2024). The Cultural Resources Preservation Program aims to balance the needs of the community for preservation and development by creating a Parks, Recreation, and Cultural Resources Commission, setting forth procedures to allow the inventory and classification of community cultural resources, and providing guidance to owners in the preservation of valuable cultural assets. Components of the Cultural Resources Preservation Program include general objectives; purpose; definitions; Parks, Recreation, and Cultural Resources Commission; powers and duties; designation criteria and procedures; permits; permit procedures; maintenance and repair; showing of hardship; rules and regulations; and violations.

City of San José General Plan

The City of San José General Plan includes the following goals and policies pertaining to cultural resources that are applicable to the Project (City of San José 2024):

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.

City of San José Historic Preservation

The Council of the City of San José adopted the Historic Preservation Ordinance (City of San José 2021) (Section 13.48 of the City's Municipal Code) to promote a harmonious outward appearance of structures in historic styles and to help ensure a general harmony in style, form, color, proportion, texture, and material between historic and modern buildings. This goal is achieved through the preservation and protection of historic or architecturally worthy structures and neighborhoods, which give the city of San José its unique character and serve as visible reminders of the city's historical and cultural heritage.

Santa Clara County

The Santa Clara County General Plan outlines its mission to preserve the region's heritage, including historic sites, structures, areas, archeological and paleontological sites, and artifacts, through its policy and implementation framework. The Santa Clara County General Plan includes the following goal, policies, and implementation measure pertaining to cultural resources that are applicable to the Project (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.

City of Santa Clara General Plan

The City of Santa Clara General Plan includes the following goals and policies pertaining to cultural resources that are applicable to the Project (City of Santa Clara 2010):

Goal 5.5.1-G2: Flexibility in permitted land uses, densities and intensities to support General Plan Major Strategies and goals and policies for Focus Areas, Historic Preservation, Mobility and Transportation, and Environmental Quality.

***Policy 5.5.1-P12*:** For City historically or architecturally significant properties, listed in Appendix 8.9, allow alternate uses from those on the General Plan L and Use Diagram in order to encourage preservation of the resource, provided that the alternate use is compatible with planned uses on neighboring properties and consistent with other applicable General Plan policies.

Goal 5.6.1-G1: Preservation of historic resources and neighborhoods.

***Policy 5.6.1-P1*:** Discourage the demolition or inappropriate alterations of historic buildings and ensure the protection of historic resources through the continued enforcement of codes and design guidelines.

***Policy 5.6.1-P3*:** Protect historic resources from demolition, inappropriate alterations and incompatible development.

Goal 5.6.2-G1: New development that is compatible with nearby historic resources.

***Policy 5.6.2-P1*:** Evaluate any proposed changes to properties within 100 feet of historic resources on the City's list of Architecturally or Historically Significant Properties for potential negative effects on the historic integrity of the resource or its historic context.

Goal 5.6.3-G1: Protection and preservation of cultural resources, as well as archaeological and paleontological sites.

Goal 5.6.3-G2: Appropriate mitigation in the event that human remains, archaeological resources, or paleontological resources are discovered during construction activities.

***Policy 5.6.3-P1*:** Require that new development avoid or reduce potential impacts to archaeological, paleontological, and cultural resources.

***Policy 5.6.3-P4*:** Require that a qualified paleontologist/archaeologist monitor all grading and/or excavation if there is a potential to affect archeological or paleontological resources, including sites within 500 feet of natural water courses and in the Old Quad neighborhood.

***Policy 5.6.3-P5*:** In the event that archaeological/paleontological resources are discovered, require that work be suspended until the significance of the find and recommended actions are determined by a qualified archaeologist/paleontologist.

***Policy 5.6.3-P6*:** In the event that human remains are discovered, work with the appropriate Native American representative and follow the procedures set forth in State law.

City of Santa Clara Historic Preservation Ordinance

The City of Santa Clara adopted the Historic Preservation Ordinance (Chapter 18.106 of the City's Municipal Code) to promote the identification, protection, enhancement, and perpetuation of buildings, structures, and properties within the city (City of Santa Clara 2024). The Historic Preservation Ordinance outlines the designation criteria for a property to be placed on the Historic Resources Inventory. Designated properties reflect special elements of the City's social, economic, historical, architectural, engineering, archaeological, cultural, natural, or aesthetic heritage. Components of the ordinance include definitions, intent, identification of Historic Resources Inventory properties, Historic Resources Inventory property designation, permits required for property alterations, demolition permits, and Historical and Landmarks Commission referral for projects near Historic Resources Inventory properties.

3.5.4 Cultural Resources Identification Methods and Results

The following discussion regarding identifying known cultural resources within the Project area is based in part on the PanGIS Inc. (2024) cultural resources assessment.

3.5.4.1 Records Search and Historical Research

On May 16, 2023, PanGIS Inc. submitted a records search of the California Historical Resources Information System at the Northwest Information Center. PanGIS Inc.'s records search included a review of all recorded cultural resources, previous studies, and additional information on properties located within a 1.0-mile radius of the Project area, as well as the National Register, the California Register, the California Historic Landmarks, the California Inventory of Historic Resources, the California Points of Historical Interest, the California Office of Historic Preservation Built Environment Resource Directory, and the Caltrans Bridge Survey.

The records search results indicated that no previously recorded cultural resources were within the Project area. Additionally, 64 previously recorded cultural resources were within the 1-mile search radius, and four historic-era archaeological sites have been recorded within 100 feet

(approximately 30 meters) of the Project area. Lastly, the records search results indicated that 101 cultural resource studies were conducted within the Project area, and 398 were conducted within the 1-mile search radius (PanGIS Inc. 2024).

Historical topographic maps from the late 19th to the mid-20th centuries document salt marshes, tidal regions, and numerous waterways within and adjacent to the Project area. Sanjon de los Alisos Creek flowed to the north, while the Guadalupe River, Campbell Creek, and Coyote Creek flowed to the south. Additionally, smaller creeks flowed out to the bay from the eastern mountain ranges. As early as the 1880s, the Southern Pacific Railroad's Santa Cruz Division and San José Branch railroad routes were present in and adjacent to the Project area. Early grid-patterned townships, such as Newark and Santa Clara, were depicted with vast agricultural lands beyond their borders. Within the south and east bay, dirt roads historically transected the area. Rural structures were constructed singularly and in clusters along these routes. Although the Project area contained the occasional dirt road and structure, the lands belonging to the Project substations remained mostly undeveloped (Cartwright Aerial Surveys 1963, 1965; Fairchild Aerial Surveys 1928; PanGIS Inc. 2024; USGS 1889, 1899, 1906, 1943, 1947, 1953, 1961, 1966). The PG&E Newark 230 kV Substation was constructed in 1920, and the SVP NRS Substation in 1980. Over the decades, the substations and transmission lines have been upgraded and expanded to meet the growing needs of the surrounding population. As a result of this periodic redesign and expansion of the facilities, the soil within the substations is highly disturbed and predominantly paved.

3.5.4.2 Archaeological Survey

Between September 2023 and March 2024, PanGIS Inc. conducted 5–10-meter-wide pedestrian surveys. On November 12, 2024, the California Independent System Operator Board of Governors approved a modified version of the Project[2]. Therefore, the survey, which totaled 326.7 acres, included some areas of the previously proposed Project design that were included in the modified Project design. These areas encompass the PG&E-owned property surrounding the existing PG&E Newark 230 kV Substation including limits of construction for the overhead structures NN-1 to NN-4, optional trench, jack and bore, and horizontal directional drilling locations and portions of the construction limits for the new overhead and underground Newark to NRS 230 kV AC transmission line, structures NN-5 to NN-14), Staging Area 3, 6, 9, 11, and 12, and access roads. In areas where access was not granted, including the existing PG&E Newark 230 kV Substation, the existing SVP NRS 230 kV Substation, structure NN-15, proposed Staging Areas 2, 4, 5, 7, and the remainder of 3, 6, 9, and 11, visual surveys were conducted from the public right-of-way (PanGIS Inc. 2024). No pedestrian or visual surveys were conducted at proposed Staging Areas 1, 8, or 10. Ground visibility ranged from 0–100 percent due to the Project area comprising existing commercial and suburban built environments, landscaping, paved roads, and undeveloped areas with and without dense vegetation.

[2] The original Project scope approved by California Independent System Operator, called the Newark to NRS HVDC Project, included the construction of two new high-voltage direct current terminals and a 320 kV direct current transmission line connecting the two new high-voltage direct current terminals.

During the survey, two isolated pre-contact archaeological resources were observed and recorded: a ground stone (CP-Iso-01) and a green chert core (SA-10-Iso-02). PanGIS Inc. evaluated these isolates and recommended them not to be eligible for listing in the National Register and California Register due to their lack of significance under California Register Criteria 1–4 or National Register Criteria A–D (PanGIS Inc. 2024). Environmental Science Associates agrees with this recommendation.

3.5.4.3 Archaeological Sensitivity Assessment

This analysis uses the term 'potential' to assess the possibility of cultural resources being present and 'sensitivity' to assess the likelihood that any possible cultural resources are significant under the California Register and would qualify as a historical resource. As part of an archaeological sensitivity analysis, site records, Sacred Lands File status, historical maps, aerial photography, soil maps, and survey results were reviewed.

Based on the Pleistocene to Holocene age of the soils, the Project's proximity to historic waterways, and known cultural resources just beyond the 1-mile radius, there is a moderate to high potential for buried, intact pre-contact archaeological deposits in undisturbed portions of the Project area. However, no previously recorded pre-contact or indigenous resources have been identified within the Project area, and the NAHC Sacred Lands File search results were negative.

Historical maps show that dirt roads and sparse rural structures were present within portions of the Project area. The land where the PG&E Newark 230 kV Substation and SVP NRS 230 kV Substation are located remained predominately undeveloped until their construction. Over the decades, ground disturbance within much of the Project area increased as the cities developed and the substations expanded. However, in the undisturbed portions of the Project area, there is a moderate to high potential for encountering buried historic-era archaeological resources, such as foundations, artifact-filled wells, or privies.

Although there are no known pre-contact and historic-era archaeological resources within the Project area, the areas with undisturbed soils have a moderate to high potential to contain buried intact cultural resources. Therefore, the Project's pre-contact and historic-era archaeological resources sensitivity is low to high based on the location.

3.5.5 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the project by LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.

- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.5.5.1 LSPGC Applicant-Proposed Measures

LSPGC has identified the following Applicant-proposed measures (APMs) to minimize impacts related to cultural resources for the Project. The impact analysis assumes that the following APMs would be implemented by LSPGC as part of their 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 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 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 [Code of Federal Regulations] Part 61).

- **APM CUL-2: Archaeological and Native American Monitoring**. Archaeological and Native American monitoring shall be conducted during initial ground disturbance associated with the Project when within 100 feet (30 m [meters]) of previously recorded prehistoric or 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 m) of previously recorded historic-period resources or after unanticipated discovery of same. Prehistoric and/or ethnohistoric archaeological sites have been recorded adjacent to

the Project area, and the Sacred Lands File (SLF) search and Tribal outreach indicate that lands sacred to the North Valley Yokuts Tribe and the Ohlone Indian Tribe are present within the Project search area.[3] In addition, historic-era archaeological sites have been recorded within 100 feet (30 m) of the Project area. A qualified archaeologist, or an archaeological monitor under the supervision of 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, if 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 [Applicant-proposed measures] may be superseded by government-to-government consultation conducted between the CPUC and Tribal organizations as part of the Assembly Bill 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 [meters]) 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 limits of construction for the proposed Newark to NRS [Northern Receiving Station] transmission line within Caltrans [California Department of Transportation] ROW [right-of-way] and temporary construction Staging Areas 1, 4 through 8, 10, and part of 11 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 [operation

[3] The Sacred Lands File search conducted by Environmental Science Associates in 2024 for the Project was negative for sacred sites (NAHC 2024).

and maintenance] 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.

3.5.5.2 PG&E Best Management Practices and Field Protocols

PG&E would be responsible for the implementation of best management practices (BMPs) related to cultural resources within the PG&E Newark 230 kV Substation Project component. This analysis assumes that the following BMPs would be implemented by PG&E as part of their portion of work for the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation).

- **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: 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 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.

- **PG&E BMP CULT-3: 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 [cultural resource specialist], 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.

3.5.5.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to cultural resources within SVP's portion of the Project.

3.5.6 Significance Criteria

According to Appendix G of the CEQA *Guidelines*, except as provided in PRC Section 21099, the Project would result in a 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.

3.5.7 Direct and Indirect Effects

3.5.7.1 Approach to Analysis

No historical resources, including archaeological and architectural resources, were identified based on the technical reports, background research, and archaeological sensitivity analysis described under Section 3.5.3, *Cultural Resources Identification Methods and Results*. The following analysis of direct and indirect effects is based on the criteria identified in the Appendix G of the CEQA Guidelines**.**

3.5.7.2 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 potentially historical resources according to CEQA Guidelines Section 15064.5, are addressed below under Criterion b).

Project construction would not affect known historical resources because no resources that meet CEQA's definition of a historical resource are known to be located within the Project area (see Section 3.5.3, *Cultural Resources Identification Methods and Results*). Therefore, the Project construction activities would have no impact on known historical resources.

Operation and maintenance of the Project would not impact known 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 not 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 historical resources according to CEQA Guidelines Section 15064.5 and unique archaeological resources, as defined in PRC Section 21083.2(g). A significant impact would occur if the Project caused a substantial adverse change to an archaeological resource through physical demolition, destruction, relocation, or alteration.

Construction

Based on the records search, pedestrian survey results, and background research, no known archaeological resources are within the Project area. The two isolated, possibly pre-contact artifacts identified during the pedestrian survey were recommended as ineligible for listing in the National Register and California Register and, therefore, are not considered historical resources or unique archaeological resources.

However, the archaeological sensitivity analysis indicates the potential for unrecorded subsurface archaeological material to be uncovered during proposed ground-disturbing activities, particularly in undisturbed areas or areas that have not been subject to pedestrian surveys. A large portion of the Project area has not been surveyed for cultural resources, and the Project site has a low to high potential for containing sensitive archaeological deposits. If any previously unrecorded archaeological resources are identified during Project ground-disturbing activities and qualify as a historical resource under CEQA Guidelines Section 15064.5 or a unique archaeological resource as defined in PRC Section 21083.2(g), any impacts to the resource could be potentially significant.

To mitigate potential impacts to unknown archaeological resources within areas of archaeological sensitivity, particularly those that have not been subject to pedestrian surveys, implementation of **Mitigation Measure 3.5-1: Archaeological Monitoring Plan**, would require the development of

an archaeological monitoring plan that identifies areas of archaeological sensitivity and areas that require archaeological and tribal monitoring in accordance with APM CUL-2, outside of the 100-foot buffer of known resources.

To reduce potential impacts on archaeological resources, LSPGC and PG&E would require cultural resources awareness training in accordance with **APM CUL-1: Worker Environmental Awareness Program (WEAP) Training** and **PG&E BMP CULT-1: Worker Awareness Training**. To reduce impacts on undocumented archaeological resources, LSPGC and PG&E would adhere to **APM CUL-2: Archaeological and Native American Monitoring** and **APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources** and **PG&E BMP CULT-2: Inadvertent Discovery** if any such resources are discovered during Project implementation. In accordance with **APM CUL-4: Cultural Resources Inventory**, the construction limits for the proposed Newark to NRS 230 kV AC transmission line within California Department of Transportation right-of-way and temporary construction Staging Areas 1, 4 through 8, 10, and part of 11 would be surveyed prior to construction. If additional proposed facilities and ground-disturbing activities extend beyond the previously surveyed acreage, the new areas would undergo a cultural resources inventory to help ensure that any newly identified cultural resources are either avoided by Project redesign or evaluated and treated. Should new cultural resources be identified during surveys, the Applicant would follow APM CUL-4, which requires the evaluation and treatment of cultural resources and avoidance through Project redesign when feasible. The Mitigation Measure, APMs, and PG&E BMPs would require additional surveys, cultural resources awareness training, guidelines for archaeological and Native American monitoring, and protocols to follow in the event of an inadvertent discovery of cultural resources before and during Project implementation. With Project compliance with existing regulations and implementation of Mitigation Measure 3.5-1, APMs CUL-1 through CUL-4 and PG&E BMPs CULT-1 and CULT-2, the potential impact related to archaeological resources would be **less than significant**.

Operations and Maintenance

Operation and maintenance of the Project would not impact archaeological resources because no ground disturbance would occur at depths beyond those reached during construction.

Mitigation Measure 3.5-1: Archaeological Monitoring Plan

Prior to authorization to proceed, a Secretary of the Interior-qualified archaeologist shall prepare an archaeological monitoring plan. The plan shall be reviewed by the culturally-affiliated Native American Tribe(s) and the CPUC. The plan will include (but not be limited to) the following components:

- Training program for all construction and field workers involved in site disturbance. On-site personnel shall attend a mandatory pre-project training led by a Secretary of the Interior-qualified archaeologist and a Native American representative. The training will outline the general cultural sensitivity of the area and the procedures to follow in the event that cultural materials and/or human remains are inadvertently discovered.
- Detailed explanation of 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 archaeological monitoring activities, including a request to the culturally affiliated Native American Tribe(s) for a tribal monitor.
- Identification of the lead Secretary of the Interior-qualified archaeologist responsible for overseeing and directing the monitors.
- How the monitoring will 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).
- Methods to ensure security of cultural resources.
- Protocol for notifying local authorities (i.e., Sheriff, Police) should site looting and other illegal activities occur during construction.

During the course of the monitoring, the lead Secretary of the Interior-qualified archaeologist and lead tribal representative or lead tribal monitor may adjust the frequency of the monitoring from continuous to intermittent or vice versa based on the conditions and professional judgment regarding the potential to impact resources.

If cultural materials are encountered, all soil-disturbing activities within 50 feet in all directions of the find shall cease until the resource is evaluated and the CPUC project manager concurs with the evaluation. The archaeological monitor shall immediately notify the lead Secretary of the Interior-qualified archaeologist, the CPUC, and its consultant of the encountered resource(s). After making a reasonable effort to assess the identity, integrity, and significance of the encountered resource, in consultation with the culturally affiliated Native American Tribe(s), the lead Secretary of the Interior-qualified archaeologist shall present the findings of this assessment to the CPUC for review no later than 10 calendar days after the find. If it is not possible to present the findings within 10 calendar days, the lead Secretary of the Interior-qualified archaeologist shall explain why doing so is infeasible and when it will be possible to present the findings.

If the find is determined to be potentially significant by the CPUC, the lead Secretary of the Interior-qualified archaeologist, in consultation with the CPUC and the culturally affiliated Native American Tribe(s), shall determine whether preservation in place 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 avoidance is not feasible, the CPUC shall consult with the culturally affiliated Native American Tribe(s) and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC [Public Resources Code] Section 21083.2, and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).

Significance after Mitigation: Implementation of APMs CUL-1 through CUL-5, PG&E BMPs CULT-1 through CULT-2, and Mitigation Measure 3.5-1 would ensure that impacts associated with the discovery of any archaeological resources, if identified during Project construction, would be less than significant.

Criterion c) Whether the Project would disturb any human remains, including those interred outside of formal cemeteries.

Impact 3.5-2: The Project would not disturb any human remains, including those interred outside of dedicated cemeteries. (*Less than Significant with Mitigation*)

The records search and background research determined that no human remains are known to exist within the Project area. Therefore, the Project would likely not impact human remains, including those interred outside of formal cemeteries.

Construction

In the unlikely event that Project construction-related ground-disturbing activities identify undiscovered human remains, the Applicant would comply with Government Code Section 27460 et seq., which requires that ground-disturbing activities halt until the County Coroner determines whether the remains are subject to the provisions of Government Code Section 27491 or any other laws 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 California Health and Safety Code Section 7050.5, the coroner would 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 would contact the NAHC within 24 hours. With Project compliance with existing regulations and implementation of Mitigation Measure 3.5-2, APMs CUL-1, CUL-2, and CUL-5 and PG&E BMP CULT-1 and **PG&E BMP CULT-3: Human Remains**, the potential impact related to the accidental discovery of human remains would be **less than significant**.

Operations and Maintenance

Operation and maintenance of the Project would not impact archaeological resources because no ground disturbance would occur at depths beyond those reached during construction. Therefore, Project operation and maintenance would have no impact on this criterion.

Mitigation: Implement Mitigation Measure 3.5-1.

Significance after Mitigation: Implementation of APMs CUL-1, CUL-2, and CUL-5, PG&E BMPs CULT-1 and CULT-3, and 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.

3.5.8 Cumulative Effects Analysis

3.5.8.1 Criterion a), b), and c)

Impact C.3.5-1: The Project, in combination with the cumulative projects, would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5; would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section; and would not disturb any human remains, including those interred outside of dedicated cemeteries. (*Less than Significant with Mitigation*)

The geographic scope for cumulative effects on cultural resources includes the immediate vicinity of locations where the Project could cause disturbance to historical resources, unique archaeological resources, or human remains. As the Project would not have an impact on historical resources of the built environment, there would be no cumulative impact. Additionally, no known human remains or archaeological resources qualifying as historical or unique archaeological resources are within the study area; therefore, there would be no cumulative impact on known human remains or known archaeological resources.

Like the Project, cumulative projects in the vicinity could have a significant impact on previously undiscovered archaeological resources, including human remains interred outside of formal cemeteries, during ground-disturbing activities. 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 buried archaeological resources or human remains. However, implementing the Mitigation Measure, APMs, and PG&E BMPs, would require a worker environmental awareness training for cultural resources, the development of an archaeological monitoring plan to identify areas of archaeological sensitivity that require monitoring, monitoring of areas within 100 feet of previously recorded resources, halting work in the vicinity of a find until it is evaluated, and contacting the County Coroner in the case of human remains. Additionally, cumulative projects undergoing CEQA review would implement similar training, monitoring, and inadvertent discovery measures. Therefore, with the implementation of the Mitigation Measure, APMs and PG&E BMPs, the Project's contribution to cumulative impacts would not be considerable, and the impact would be **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.5-1.
>
> **Significance after Mitigation**: With the implementation of the APMs, PG&E BMPs, and Mitigation Measure 3.5-1, the Project, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

3.5.9 References

Alameda County. 2012. *Historic Preservation Ordinance*. Historic Preservation: General Plans, Ordinances & Policies – Planning – Community Development Agency – Alameda County.

Arbuckle, C. and R. Rambo. 1968. Map of Santa Clara County Ranchos. Harlan-Young Press, San José, CA. Retrieved from Internet Archive on October 15, 2024. Available: https://archive.org/details/scc-ranchos-map-rambo. Accessed October 30, 2024.

Bean, W. and J.J. Rawls. 1998. *California: An Interpretive History*. 7th ed. New York: McGraw-Hill Co. Inc.

Beck, W.A. and Y.D. Hasse. 1974. *Historical Atlas of California*. Norman, OK: University of Oklahoma Press.

Beller, E., M. Salomon, and R. Grossinger. 2010. *Historical Vegetation and Drainage Patterns of Western Santa Clara Valley.* San Francisco Estuary Institute (SFEI), Oakland, CA.

Bolton, H.E. 1930. *Anza's California Expeditions.* Vol. I: *An Outpost of Empire*. Vol. II: *Opening a Land Route to California.* Vol. IV: *Font's Complete Diary of the Second Anza Expedition.* Berkeley: University of California Press.

Cartwright Aerial Surveys. 1963. *CAS-SCL.* Aerial Imagery. Available: https://mil.library.ucsb.edu/ap_indexes/FrameFinder/. Accessed November 04, 2024.

Cartwright Aerial Surveys.1965. *CAS-65-130.* Aerial Imagery. Available: https://mil.library.ucsb.edu/ap_indexes/FrameFinder/. Accessed November 04, 2024.

City of Fremont. 2007. Historic Resources Ordinance. Available: https://www.codepublishing.com/CA/Fremont/html/Fremont18/Fremont18175.html#18.175.010. Accessed November 26, 2024.

City of Fremont. 2011. *City of Fremont General Plan 2030*. Adopted December 2011. Chapter 4, "Community Character." Available: https://www.fremont.gov/government/departments/community-development/planning-building-permit-services/plans-maps-guidelines/general-plan. Accessed November 1, 2024.

City of Milpitas. 2021. *General Plan 2024 City of Milpitas*. Available: https://www.milpitas.gov/DocumentCenter/View/1147/Milpitas-2040-General-Plan-PDF?bidId=. Accessed November 1, 2024.

City of Milpitas. 2024. Milpitas Municode Codification. Available: https://library.municode.com/ca/milpitas/codes/code_of_ordinances?nodeId=TITXIZOPLAN_CH4CUREPRPR. Accessed November 1, 2024.

City of San José. 2021. *Historic Preservation Ordinance*. Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/historic-resources/historic-contexts-and-surveys/historic-context-statement-update/general-plan-policies-historic-preservation-ordinance. Accessed November 26, 2024.

City of San José. 2024. *Envision San José 2040 General Plan*. Adopted November 1, 2011; as amended on October 24, 2024. Available: https://www.sanjoseca.gov/home/showpublisheddocument/22359/637928744399330000. Accessed November 26, 2024.

City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted November 16, 2010. Available: https://www.santaclaraca.gov/home/showpublisheddocument/56139/636619791319700000. Accessed November 5, 2024.

City of Santa Clara. 2024. *Historic Preservation Ordinance*. Available: https://www.codepublishing.com/CA/SantaClara/html/pdfs/SantaClara18.pdf. Accessed November 26, 2024.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

Fairchild Aerial Surveys. 1928. *C-330-K1.* Aerial Image. Available: https://mil.library.ucsb.edu/ap_indexes/FrameFinder/. Accessed November 04, 2024.

Hendry, G. and J. Bowman. 1940. *The Spanish and Mexican Adobe and Other Buildings in the Nine San Francisco Counties, 1776 to about 1850*. On file, California Historical Resources Information System, Northwest Information Center, Rohnert Park, CA.

Levy, R. 1978. "Costanoan," In *California*, edited by Robert F. Heizer, pp. 485–495. *Handbook of North American Indians*, Vol. 8, edited by William C. Sturtevant. Washington, D.C.: Smithsonian Institution.

Milliken, R., R.T. Fitzgerald, M.G. Hylkema, R. Groza, T. Origer, D.G. Bieling, A. Leventhal, R.S. Wiberg, A. Gottsfield, D. Gillette, V. Bellifemine, E. Strother, R. Cartier, and D.A. Fredrickson. 2007. "Punctuated Cultural Change in the San Francisco Bay Area," *In California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 99-124. Lanham, MD: AltaMira Press.

NAHC (Native American Heritage Commission). 2024. Letter to Ashleigh Sims, Environmental Science Associates, from Cody Campagne. "Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Power the South Bay Project, Alameda and Santa Clara Counties." July 23, 2024.

National Park Service (NPS). 2008. "Santa Clara County: California's Historic Silicon Valley, Early History." Available: https://www.nps.gov/subjects/travelsantaclara/list-of-sites.htm. Accessed October 6, 2008.

NRCS (National Resources Conservation Service). 2024. *Custom Soil Resource Report for Alameda County, California, Western Part; and Santa Clara Area, California, Western Part.* United States Department of Agriculture, Washington, D.C.

NRPH (National Register of Historic Places). 2025. *Title 36 – Parks, Forests, and Public Property, Chapter I – National Park Service, Department of the Interior, Part 60 National Register of Historic Places*. Available: https://www.ecfr.gov/current/title-36/chapter-I/part-60. Accessed February 27, 2025.

PanGIS Inc. 2024. *Cultural Resource Technical Report for the Power the South Bay Project, Alameda and Santa Clara Counties, California*.

Santa Clara County. 1994. *Santa Clara County General Plan 1995–2010*. Available: https://plandev.santaclaracounty.gov/codes-and-policies/general-plan. Accessed November 26, 2024.

Thompson and West. 1876. *Historical Atlas of Santa Clara County, California*. Thompson and West, San Francisco, CA.

USGS (U.S. Geological Survey). 1889. *San José Quadrangle, California, 1:62,500 Scale Series (Topographic).*

USGS (U.S. Geological Survey). 1899. *San José Quadrangle, California, 1:62,500 Scale Series (Topographic).*

USGS (U.S. Geological Survey). 1906. *Pleasanton Quadrangle, California, 1:62,500 Scale Series. (Topographic).*

USGS (U.S. Geological Survey). 1943. *Pleasanton Quadrangle, California, 15-minute Series (Topographic).*

USGS (U.S. Geological Survey). 1947. *San José, California, 1:250,000 Scale Series (Topographic).*

USGS (U.S. Geological Survey). 1953. *Niles Quadrangle, California, 7.5-minute Series (Topographic).*

USGS (U.S. Geological Survey). 1953. *San José, Quadrangle, California, 15-minute Series (Topographic).*

USGS (U.S. Geological Survey). 1961. *Milpitas Quadrangle, California, 7.5-minute Series (Topographic).*

USGS (U.S. Geological Survey). 1961. *Niles Quadrangle, California, 7.5-minute Series (Topographic).*

USGS (U.S. Geological Survey). 1966. *San José, Quadrangle, California, 1:250,000 Scale Series (Topographic).*

USGS (U.S. Geological Survey). 2006. *Geologic Map of the San Francisco Bay Region*, Washington, D.C.

USGS (U.S. Geological Survey). 1941. *Woodland Quadrangle, California, 7.5 Series (Topographic)*. Available: https://livingatlas.arcgis.com/topomapexplorer/index.html#maps=&loc=-121.79,38.62&LoD=16.61. Accessed October 19, 2024.

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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 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 LS Power Grid California, LLC (LSPGC), as presented in **Appendix C**, *Air Quality, Greenhouse Gas, and Energy Calculations and Modeling*. The calculations were reviewed by 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 B**, *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 2024a).

Regional

Pacific Gas and Electric Company (PG&E) provides electricity 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 2024a). 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 2024b). **Table 3.6-1** 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

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 2024b

Local

The city of San José provides access to programs that provide energy service throughout the city, referred to as the San Jose Clean Energy (SJCE) GreenSource and SJCE TotalGreen. SJCE procures electricity from a mix of renewable energy sources and serves PG&E, which delivers the electricity to customers. The service provided to most San José residents and businesses is GreenSource, which consists of 60 percent renewable energy, 35 percent nonrenewable 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.

The city of Santa Clara, via SVP, offers Santa Clara Green Power, a voluntary clean energy program that gives commercial customers in the city the ability to cover up to 100 percent of their electricity usage with renewable sources of power for a minimal additional cost. For those who opt out of SJCE or SVP services, electricity is provided by PG&E.

In 2022, electricity consumption by residential and nonresidential uses in Alameda County totaled 3,195 GWh and 7,199 GWh, respectively, for a total of 10,395 GWh. That same year, residential and nonresidential electricity consumption in Santa Clara County totaled 4,250 GWh and 12,852 GWh, respectively, for a total of 17,102 GWh (CEC 2024b).

3.6.1.2 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 2024c). 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 2024c). According to the U.S. Department of Energy's Energy Information Administration, many semi-trucks, delivery vehicles, buses, trains, ships, boats and barges, and farm, construction, and military vehicles and equipment have diesel engines (USEIA 2022).

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 cities of Fremont, Milpitas, San José; in Santa Clara, Santa Clara, and Alameda counties; and across all parts of the PG&E service territory. In 2023, estimated sales of gasoline in Santa Clara County and Alameda County totaled 563 million and 468 million gallons, respectively (CEC 2024c). That same year, estimated diesel sales in Santa Clara County and Alameda County totaled 69 million and 84 million gallons, respectively (CEC 2024c). Estimated gasoline sales in 2023 in the cities of Fremont, Milpitas, San José, and Santa Clara totaled 54 million, 19 million, 221 million, and 37 million gallons, respectively (CEC 2024d).

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 2024a).

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 2024b). The law also established miles per gallon (mpg) targets for cars and light trucks 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 2024b).

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."[1]

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 (USDOT), 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:

- Technological feasibility.
- Economic practicality.
- Effect of other standards on fuel economy.
- 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 year 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).

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 year 2014–2018 combination tractors, heavy-duty pickup trucks and vans, and vocational

[1] 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.

vehicles, resulted in reductions in fuel consumption of 6–23 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, USDOT and USEPA issued the final Safer Affordable Fuel-Efficient (SAFE) 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 SAFE 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 SAFE 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 year 2027–2032 passenger cars and light trucks and new fuel efficiency standards for model year 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, USDOT 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 year 2027–2031 passenger cars and 2 percent per year for model year 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 resources. 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 33 percent by 2020 RPS goal 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.
- **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.
- **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.
- **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.

The CPUC and the California Energy Commission (CEC) jointly implement the RPS program. The CPUC's responsibilities are to (1) determine annual procurement targets and enforce compliance; (2) review and approve each investor-owned utility's renewable energy procurement plan; (3) review contracts for RPS-eligible energy; and (4) 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 two

years and an update every other year (CEC 2025). 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 Edmund G. Brown Jr. 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[2] (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 (ZEV) regulations, which required manufacturers to produce an increasing number of pure ZEVs 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 ZEV 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 promote the early adoption of zero-emission heavy-duty technology in applications best suited for its implementation. The regulations are also intended to reduce the consumption of diesel fuel.

[2] The Pavley regulations (AB 1493) established California's first GHG emissions standards for passenger vehicles, requiring a 30% reduction by 2016 (Pavley I) and further aligning with federal standards for model years 2017–2025 (Pavley II). These rules set the foundation for national GHG regulations and help accelerate the adoption of low-emission and zero-emission vehicle technologies.

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 to reduce emissions from existing (in-use) off-road diesel vehicles used in construction and other industries (CARB 2007). This 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.

3.6.2.3 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 energy that would otherwise be relevant to the Project and alternatives are described below.

City of Fremont General Plan

The Conservation Element of the City of Fremont General Plan (City of Fremont 2011) provides a framework to help guide decision-making with regard to the conservation, management, and utilization of resources. This framework includes goals and policies related to energy conservation and renewable energy such as the following:

> ***Policy 7-9.2: Energy Efficiency in Building/Site Design***. Encourage/require maximum feasible energy efficiency in site design, building orientation, landscaping, and utilities/infrastructure for all development and redevelopment projects.
>
> ***Policy 7-3.3: Renewable Energy Sources***. Encourage renewable energy sources for new and existing buildings and infrastructure.

City of Fremont Fossil Fuel Divestment Resolution

In October 2018, the Fremont City Council adopted a Fossil Fuel Divestment Resolution to divest fully from the fossil fuel sector, to commit to a fast and just transition to 100 percent renewable energy by 2050 at the latest, and to continue adopting regulations that support the transition to clean energy while discouraging installations of new fossil fuel infrastructure.

City of Milpitas General Plan

The City of Milpitas General Plan contains goals and polies to help guide decision making and a sense of direction for action. These include goals and policies related to conservation and sustainability (City of Milpitas 2021) such as the following:

Goal CON-1: Ensure a sustainable future for the City of Milpitas by promoting a carbon free energy future that increases renewable resources, conservation, and efficiency throughout the City.

***Policy CON 1-9*:** Encourage site planning and building techniques that promote energy conservation. Where feasible, encourage projects to take advantage of shade, prevailing winds, landscaping, sunscreens, building orientations, and material choices that reduce energy use.

***Policy CON 1-10*:** Encourage distributed energy resources including solar, fuel cells etc. to provide environmental benefits, as well as energy security, and the support of the grid during peak energy use periods.

***Policy CON 1-11*:** Consider incentive programs such as reduced fees, and permit expedition for projects that exceed mandatory energy requirements, incorporate alternative energy technologies, or support the City's energy objectives.

***Policy CON 1-12*:** Promote incentives from local, state, and federal agencies for improving energy efficiency and expanding renewable energy installations.

***Policy CON 1-13*:** Support projects and programs such as appliance upgrades and the use of electric appliances, and energy storage options that reduce the use of and reliance on natural gas.

Goal UCS-6: Ensure a sustainable future for the City of Milpitas by promoting a carbon free energy future that increases renewable resources, conservation, and efficiency throughout the City.

***Policy UCS-6-1*:** Work cooperatively with utility providers to ensure the provision of adequate electric power and natural gas services and facilities to serve the needs of existing and future residents and businesses.

***Policy UCS-6-2*:** Coordinate with service providers in the siting and design of power facilities to minimize environmental, aesthetic, and safety impacts.

***Policy UCS-6-2*:** Require that all new power and gas lines and transformers are installed underground where feasible and promote the undergrounding of existing overhead facilities.

City of San José General Plan

The City of San José General Plan provides Measurable Environmental Sustainability goals for San José through 2040, establishing measurable standards for the achievement of sustainable development practices. The following City of San José Measurable Environmental Sustainability goals, policies, and action item are provided for informational purposes (City of San José 2024):

Goal MS-2: Energy Conservation and Renewable Energy Use. Maximize the use of green building practices in new and existing development to maximum efficiency and conservation and to maximize the use of renewable energy sources.

***Policy MS-15.4*:** Promote local innovation, research, development, and deployment of renewable energy and energy efficiency technologies.

Goal MS-16: Energy Security. Provide access to clean, renewable, and reliable energy for all San José residents and businesses.

***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.

Action MS-16.6: Create partnerships and governance structures that improve the overall efficiency and reliability of energy production and supply.

City of Santa Clara General Plan

The following goals and policies included in the City of Santa Clara General Plan aim to reduce GHG emissions and provide energy, fuel, and monetary savings while improving quality of life for the Santa Clara community (City of Santa Clara 2010):

Goal 5.10.3-G1: Energy supply and distribution maximizes the use of renewable resources.

Goal 5.10.3-G2: Implementation of energy conservation measures to reduce consumption.

Goal 5.10.3-G3: Adequate energy service to residents, businesses, and municipal operations.

***Policy 5.10.3-P2*:** Transition away from using coal as an energy source to renewable resources by replacing coal in Silicon Valley Power's portfolio, exploring City owned property for renewable energy projects, developing solar projects, and incentivizing solar projects for residents and businesses, consistent with the CAP [climate action plan].

***Policy 5.10.3-P3*:** Maximize the efficient use of energy throughout the community by achieving adopted electricity efficiency targets and promoting natural gas efficiency, consistent with the CAP.

***Policy 5.10.3-P5*:** Reduce energy consumption through sustainable construction practices, materials, and recycling.

***Policy 5.10.3-P10*:** Maintain the City's level of service for high quality utilities and telecommunications infrastructure.

***Policy 5.10.3-P11*:** Continue innovative energy programs to develop cost effective alternative power sources and encourage conservation.

***Policy 5.10.3-P12*:** Work with Silicon Valley Power to implement adequate energy distribution facilities to meet the demand generated by new development.

***Policy 5.10.3-P14*:** Work with Pacific Gas and Electric to ensure an adequate supply of natural gas to meet the demand generated by new development.

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 LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for the portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.6.3.1 LSPGC Applicant-Proposed Measures

LSPGC has proposed no Applicant-proposed measures (APMs) pertaining to energy within LSPGC's portion of the Project.

3.6.3.2 PG&E Best Management Practices and Field Protocols

PG&E has proposed a best management practice (BMP) measure to address potential effects on air pollutant emissions, but the measure would also serve to reduce consumption of transportation energy during construction by minimizing the unnecessary use of construction vehicles and reducing idling times. Specifically, PG&E BMP AQ-1 requires shutting off a vehicle's engine if the vehicle need not be used immediately or continuously for construction activities (see Section 3.3, *Air Quality*). The impact analysis assumes that the following BMP would be implemented by PG&E as part of their portion of work for the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation).

- **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.

3.6.3.3 SVP Construction Measure

SVP has proposed no construction measures pertaining to energy within SVP's portion of the Project.

3.6.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, 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 facilities, including the proposed transmission line. 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 GHG emissions estimated for the Project using the California Emissions Estimator Model (CalEEMod), Version 2022.1. The GHG emissions were converted into fuel volumes using The Climate Registry's default emission factors for combustion of transport fuels (TCR 2023).

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 GHG emissions associated with commuting workers and vendor and haul trips, using CalEEMod Version 2022.1.

On November 12, 2024, after LSPGC filed its original application with the CPUC on May 17, 2024, the California Independent System Operator Board of Governors approved a modified version of the Project (see Section 2.1, *Introduction*). The air pollutant emissions modeling for the revised Project was performed based on a 24-month construction scenario. However, the duration of construction was also extended by an additional 2 months, resulting in a 26-month construction period (see Section 2.9.4, *Construction Schedule*). This was not accounted for in the revised modeling.

Based on Environmental Science Associates' review of these Project changes, there are no substantive changes to Project components or Project construction activities beyond those previously analyzed in the 24-month construction scenario. This does not result in a substantial change to the modeling outcomes. Therefore, the impacts presented below represent the most conservative effects. All inputs, estimates, and calculations are detailed in Appendix C.

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 would result in consumption of energy 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. Additionally, helicopter support provided to install the overhead portion of the transmission line conductors would consume Jet A aviation fuel. 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 transmission lines to provide energy for trailer lighting, as well as 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 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 regarding the construction schedule, and the types, number, and level of construction equipment and vehicle use for each activity (see Section 3.3, *Air Quality*, and Section 3.8, *Greenhouse Gas Emissions)*.

Table 3.6-2 identifies the fuel consumption anticipated to occur during Project construction. As shown, over the Project's construction period, worker vehicles would consume 81,040 gallons of gasoline, construction vehicles and equipment would consume 880,500 gallons of diesel, and helicopter and helicopter support activities would consume 115,896 gallons of Jet A fuel. This equates to approximately 40,520 gallons of gasoline, 440,250 gallons of diesel, and 2,800 gallons of Jet A fuel per year.

For comparison purposes, the Project's annual average gasoline and diesel usage would represent less than 0.01 percent and 0.64 percent, respectively, of the 2023 annual on-road consumption of gasoline and diesel fuel in either Alameda or Santa Clara counties. Overall, fuel use during construction would be minimal compared to overall fuel use in the counties.

During construction, the Project would use energy only for necessary on-site activities and to transport construction materials to and from the Project sites. The Project assumes compliance with **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 Project's construction-related energy resource use. 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**.

TABLE 3.6-2
FUEL CONSUMPTION DURING PROJECT CONSTRUCTION

Source Type	Gasoline (gallons)	Diesel (gallons)	Jet A (gallons)[a]
Worker Trips	81,040	-	-
On-Road Trips and Off-Road Equipment	-	880,500	-
Helicopter and Helicopter Support	-	-	5,600
Project Total	**81,040**	**880,500**	**5,600**

NOTE: Fuel consumption during Project construction is based on a 2-year construction period.
Fuel consumption values presented in this table are from the Project's original 24-month construction modeling scenario, as provided in the originally filed Certificate of Public Convenience application on May 17, 2024.
a. Estimates based on approximate fuel usage from Page 2-26 of the Project Description
SOURCE: LSPGC 2025

Operations and Maintenance

Ongoing Project operation and maintenance activities would be similar to those currently performed by PG&E and SVP for existing facilities. LSPGC would retain one new full-time technician to support the Project and its other California projects. Among LSPGC's current activities are transmission line inspections, vegetation treatment, brush and weed control, and maintenance of access roads, which would require the use of vehicles and equipment. An increase of approximately 1,106 gallons of gasoline fuel annually would be needed to operate vehicles and equipment (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 and SVP facilities in the area. The proposed 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 federal, state, and local 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 state or local 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 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.

Construction, operation, and maintenance of the Project 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 federal and state 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 by 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 discussed above 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 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 energy used on-site would be provided by PG&E and SVP systems, which are required to comply with the RPS. Overall, the Project would increase the efficiency 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 PG&E and SVP 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, construction of the Project would be consistent with all applicable plans, policies, and regulations developed to encourage energy conservation and renewable energy use, and no impact would occur.

Operations 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 energy conservation standards. Therefore, operation and maintenance of the Project would be consistent with all applicable plans, policies, and regulations developed to encourage energy conservation and renewable energy use, and no impact would occur.

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 existing PG&E Newark and SVP Northern Receiving Station (NRS) substations via overhead and underground transmission lines and would provide additional capacity to these substations. The PG&E Newark Substation is a 230/115-kilovolt (kV) transmission substation connected to 230/115/60 kV transmission lines. The SVP NRS Substation is a 230/115/60 kV transmission substation connected to 230/115 kV transmission lines. Because of the proximity of the bulk of the area load to the existing PG&E Newark Substation, the bulk of the power flows from the Newark Substation side. As a result, there is an existing imbalance between two sources in the existing regional transmission system that causes overloads on the San José area's 115 kV system. Therefore, the Project's connection of the PG&E Newark and SVP NRS substations via overhead and underground transmission lines would increase the reliability of the area's electrical grid. The power flow would not be specific to renewable or nonrenewable energy projects.

The Project also would contribute to the ability of the electrical grid to meet existing and projected local needs during periods of peak demand. Consequently, the Project would have a beneficial impact on regional and local energy supplies: It would 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.

The Project would allow electrical energy to be transmitted to the grid during peak and base periods. Impacts on peak or base electricity demands would occur if Project construction, operation, or maintenance were to require a substantial enough amount 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 Impact 3.6-1. However, given the negligible amount of electricity required for the Project, construction would not affect 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. 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 would not result in cumulatively considerable environmental impacts due to 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. To the contrary, the Project would allow for more efficient transmission and use of energy that would be generated within the PG&E system 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.

Similarly, regarding the efficiency of fuel use, there is no existing significant adverse condition (such as a shortage) that would be worsened or intensified by the Project. The past, present, and reasonably foreseeable future projects described in Section 3.0 (see Figure 3.0-1 for cumulative project locations) near the Project alignments and sites 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 shortage, higher prices at the pump would curtail unnecessary trips that could be termed "wasteful" and would moderate choices regarding vehicles, equipment, and fuel efficiency. Under these conditions, the Project's less-than-significant impact related to wasteful, inefficient, or unnecessary consumption or use of fuel would not be cumulatively considerable. As a result, the Project's cumulative energy impact would be **less than significant**.

Mitigation: None required.

3.6.6.2 Criteria b) and c)

As presented 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*)

3.6.7 References

CARB (California Air Resources Board). 2007. In-Use Off-Road Diesel Fueled Fleets Regulation—Background. Available: https://ww2.arb.ca.gov/our-work/programs/truckstop-resources/road-zone/road-diesel-regulation/background. Accessed November 2024.

CARB (California Air Resources Board). 2017. California's Greenhouse Gas Vehicle Emission Standards under Assembly Bill 1493 of 2002 (Pavley). Available: https://ww2.arb.ca.gov/californias-greenhouse-gas-vehicle-emission-standards-under-assembly-bill-1493-2002-pavley. Accessed November 2024.

CARB (California Air Resources Board). 2024a. Advanced Clean Trucks Program—About. Available: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks/about. Accessed November 2024.

CARB (California Air Resources Board). 2024b. Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. Available: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling. Accessed November 2024.

CEC (California Energy Commission). 2024a. 2023 Total System Electric Generation. Available: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2023-total-system-electric-generation. Accessed November 2024.

CEC (California Energy Commission). 2024b. Electricity Consumption by County. Available: http://www.ecdms.energy.ca.gov/elecbycounty.aspx. Accessed November 2024.

CEC (California Energy Commission). 2024c. California Retail Fuel Outlet Annual Reporting (CEC-A15) Result, A15 Report Responses vs. California Department of Tax and Fee Administration (CDTFA) (Million Gallons). Available: https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting. Accessed November 2024.

CEC (California Energy Commission). 2024d. California Retail Fuel Outlet Annual Reporting (CEC-A15) Results and Analysis, A15 Survey Responses—Gasoline Sales (Million Gallons) By Municipality. Available: https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting. Accessed November 2024.

CEC (California Energy Commission). 2025. 2025 Integrated Energy Policy Report. Available: https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report-iepr/2025-integrated-energy-policy-report. Accessed February 2025.

City of Fremont. 2011. *City of Fremont General Plan*. Adopted December 13, 2011. Available: https://www.fremont.gov/government/departments/community-development/planning-building-permit-services/plans-maps-guidelines/general-plan. Accessed November 2024.

City of Milpitas. 2021. *Milpitas 2040 General Plan*. Adopted March 9, 2021. Available: https://www.milpitas.gov/370/Milpitas-2040-General-Plan. Accessed November 2024.

City of San José. 2023. San Jose Clean Energy GreenSource. Available: https://sanjosecleanenergy.org/greensource/. Accessed November 2024.

City of San José. 2024. *Envision San José 2040 General Plan.* Adopted November 1, 2011; amended January 31, 2024. Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan. Accessed August 2024.

City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted November 16, 2010. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed November 2024.

CPUC (California Public Utilities Commission). 2019. *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments*, Version 1.0. November 2019.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

LSPGC (LS Power Grid California, LLC). 2025. *Proponent's Environmental Assessment for LS Power Grid California, LLC's Power the South Bay Project.* May 2024. Amended February 2025. Available: https://ia.cpuc.ca.gov/environment/info/esa/psb/pdfs/Filed_PEA.pdf. Accessed November 4, 2024.

NHTSA (National Highway Traffic Safety Administration). 2023. Corporate Average Fuel Economy. Available: https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy#75896. Accessed November 2024.

PG&E (Pacific Gas and Electric Company). 2024a. Company Profile. Available: https://www.pge.com/en/about/company-information/company-profile.html. Accessed November 2024.

PG&E (Pacific Gas and Electric Company). 2024b. 2023 Power Content Label. Available: https://www.pge.com/assets/pge/docs/account/billing-and-assistance/bill-inserts/1224-power-content-label.pdf. Accessed November 2024.

TCR (The Climate Registry). 2023. *Default Emission Factors.* June 2023. Available: https://theclimateregistry.org/wp-content/uploads/2023/06/2023-Default-Emission-Factors-Final-1.pdf. Accessed January 2025.

USDOT (U.S. Department of Transportation). 2014. Corporate Average Fuel Economy (CAFE) Standards. Available: https://www.transportation.gov/mission/sustainability/corporate-average-fuel-economy-cafe-standards. Last updated August 11, 2014. Accessed November 2024.

USDOT (U.S. Department of Transportation). 2024. USDOT Finalizes New Fuel Economy Standards for Model Years 2027–2031. Press release, June 7, 2024. Available: https://www.transportation.gov/briefing-room/usdot-finalizes-new-fuel-economy-standards-model-years-2027-2031. Accessed November 2024.

USEPA (U.S. Environmental Protection Agency). 2011. Detailed Fact Sheet: EPA and NHTSA Propose Standards to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond. Available: https://www.nhtsa.gov/sites/nhtsa.gov/files/detailed-fact-sheet.pdf. Accessed November 2024.

USEIA (U.S. Energy Information Administration). 2022. Diesel Fuel Explained. Available: https://www.eia.gov/energyexplained/diesel-fuel/use-of-diesel.php. Accessed April 2025.

USEPA (U.S. Environmental Protection Agency). 2024a. Summary of the Energy Policy Act, 42 USC §13201 et seq. (2005). Available: https://www.epa.gov/laws-regulations/summary-energy-policy-act. Accessed November 2024.

USEPA (U.S. Environmental Protection Agency). 2024b. Summary of the Energy Independence and Security Act, Public Law 110-140 (2007). Available: https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act. Last updated June 18, 2024. Accessed November 2024.

USEPA (U.S. Environmental Protection Agency). 2024c. Energy Act of 2020. Available: https://www.epa.gov/greeningepa/energy-act-2020. Last updated November 5, 2024. Accessed November 2024.

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3.7 Geology, Soils, and Paleontology

This section evaluates the impacts of the Project on geology, soils, and paleontology. It includes information about the physical and regulatory setting, the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment. This analysis is based on the reports cited within this section, as well as a Paleontological Resources Technical Report prepared by the Department of PaleoServices of the San Diego Natural History Museum (PaleoServices 2024).

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 B**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to geology, soils, or paleontology.

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 site 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 13 miles west of the Project site, and the Hayward fault zone, 1.5 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 site lies within the jurisdictional boundaries of the cities of Fremont, Milpitas, San José, and Santa Clara, within Alameda and Santa Clara counties. The Project site 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, almost 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 is located in the southern range, on the southeast border of the San Francisco Bay, between the Diablo Range and the Santa Cruz Mountains and within the Santa Clara Valley. The Diablo Range consists of several parallel ridges. The highest point of the Diablo Range is Copernicus Peak, with an elevation of 4,372 feet located outside of the City of San José's sphere of influence. The Santa Cruz Mountains consist of complex ridges with rugged slopes. The mountain crests reach elevations of 2,000–3,400 feet, with the highest point being Loma Prieta Peak at 3,806 feet (City of San José 2024).

The Project site is located in the central portion of the Coast Ranges Geomorphic Province of California. The Coast Ranges are characterized by generally continuous linear series of northwest–trending mountain ranges and intervening valleys that dominate the coastal region of California from the Klamath Mountains near the Oregon border in the north to the Topatopa Mountains in Ventura County to the south. The Coast Ranges are characterized by complex geologic structural features that, today, are largely dominated by the San Andreas fault zone and related northwest–trending faults and folds. The Project site 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. Based on published literature, the Holocene-age alluvial and fluvial deposits at the surface in this region transition at relatively shallow depths into older Pleistocene-age alluvial deposits (PaleoServices 2024).

Marine and non-marine (continental) sedimentary rocks underlie the entirety of the region around the Project area. These strata range in age from Pleistocene to Holocene (CGS 2024a). The proposed transmission line alignments are predominately characterized by relatively flat paved roadways.

3.7.1.3 Local Geology

The results of the paleontological record searches and literature review, discussed further in *Paleontological Resources* further below, indicate that the Project alignment 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 alignment.

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 the 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 construction and development of buildings intended for human occupancy to avoid rupture hazards from surface faults.

The Project is not located in an Alquist-Priolo Earthquake Fault zone. The nearest active fault zone is the Hayward Fault Zone, approximately 1.5 miles from the Newark to Northern Receiving Station (NRS) 230-kilovolt(kV) AC transmission line (CGS 2024b). A complete list of active faults in the area are detailed in **Table 3.7-1**, *Faults within 10 Miles of the Project*.

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
Hayward Fault Zone	Latest Quaternary	Right Lateral	1.5 miles	Newark to NRS 230 kV AC transmission line
Calaveras Fault Zone	Late Quaternary	Right Lateral	6 miles	Newark to NRS 230 kV AC transmission line
Monte Vista-Shannon fault zone	Latest Quaternary	Reverse	8 miles	Newark to NRS 230 kV AC transmission line
San José Fault	Undifferentiated Quaternary	Unspecified	3 miles	SVP NRS 230 kV Substation
Stanford Fault	Undifferentiated Quaternary	Unspecified	5 miles	SVP NRS 230 kV Substation
Silver Creek Fault Zone	Undifferentiated Quaternary	Right Lateral	Intersects	Newark to NRS 230 kV AC transmission line
Monte Vista-Shannon fault zone	Latest Quaternary	Reverse	8 miles	SVP NRS 230 kV Substation
Cascade Fault	Undifferentiated Quaternary	Reverse	6 miles	SVP NRS 230 kV Substation
Coyote Creek Zone	Undifferentiated Quaternary	Unspecified	9 miles	SVP NRS 230 kV Substation

NOTES: AC = alternating current; kV = kilovolt; NRS = Northern Receiving Station; SVP = Silicon Valley Power.
SOURCE: USGS 2022

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.

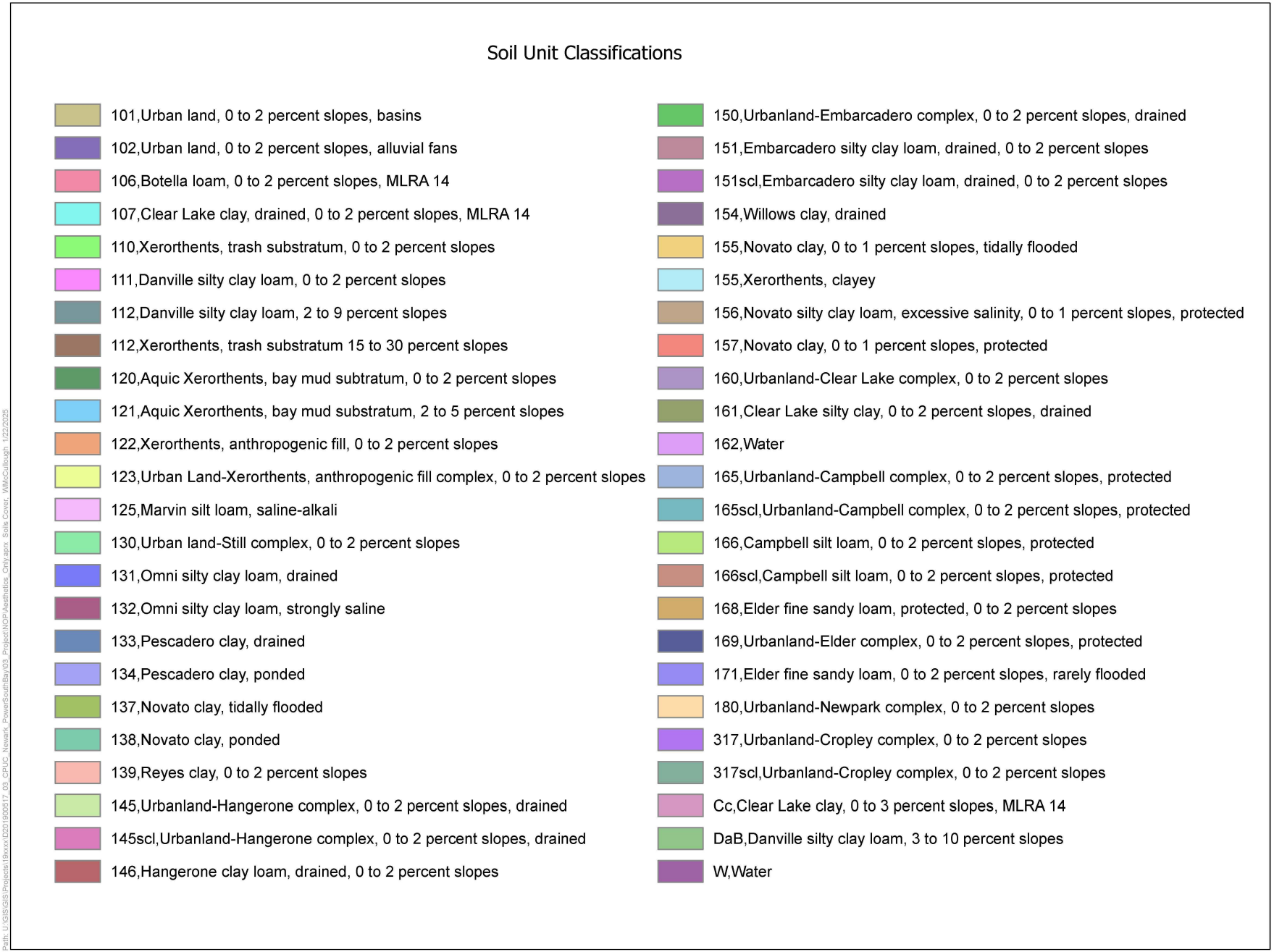
Soils present at the Project site are listed below in **Table 3.7-2**, *Mapped Soil Units and Soil Properties*. Most of the soils may be classified as Site Class D, Stiff Soil, according to California Building Code (CBC) Section 1613.2.2 of 2019/22 and Table 20.3-1 of American Society of Civil Engineers 7-16 (2016). Site Class D is defined as a profile consisting of stiff soil with a shear wave velocity between 600 feet per second and 1,200 feet per second, standard penetration test blow counts (N-value) between 15–50 blows per foot, or undrained shear strength. **Figure 3.7-1** depicts the soils present in the vicinity of the Project site.

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]
133	hb6t	Pescadero clay, drained	D	48	0.32	0–2	Expansive
154	hb7h	Willows clay, drained	D	86	0.32	0–2	Expansive
160	1nszs	Urbanland-Clear Lake complex	C	--	--	0–2	None
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:
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



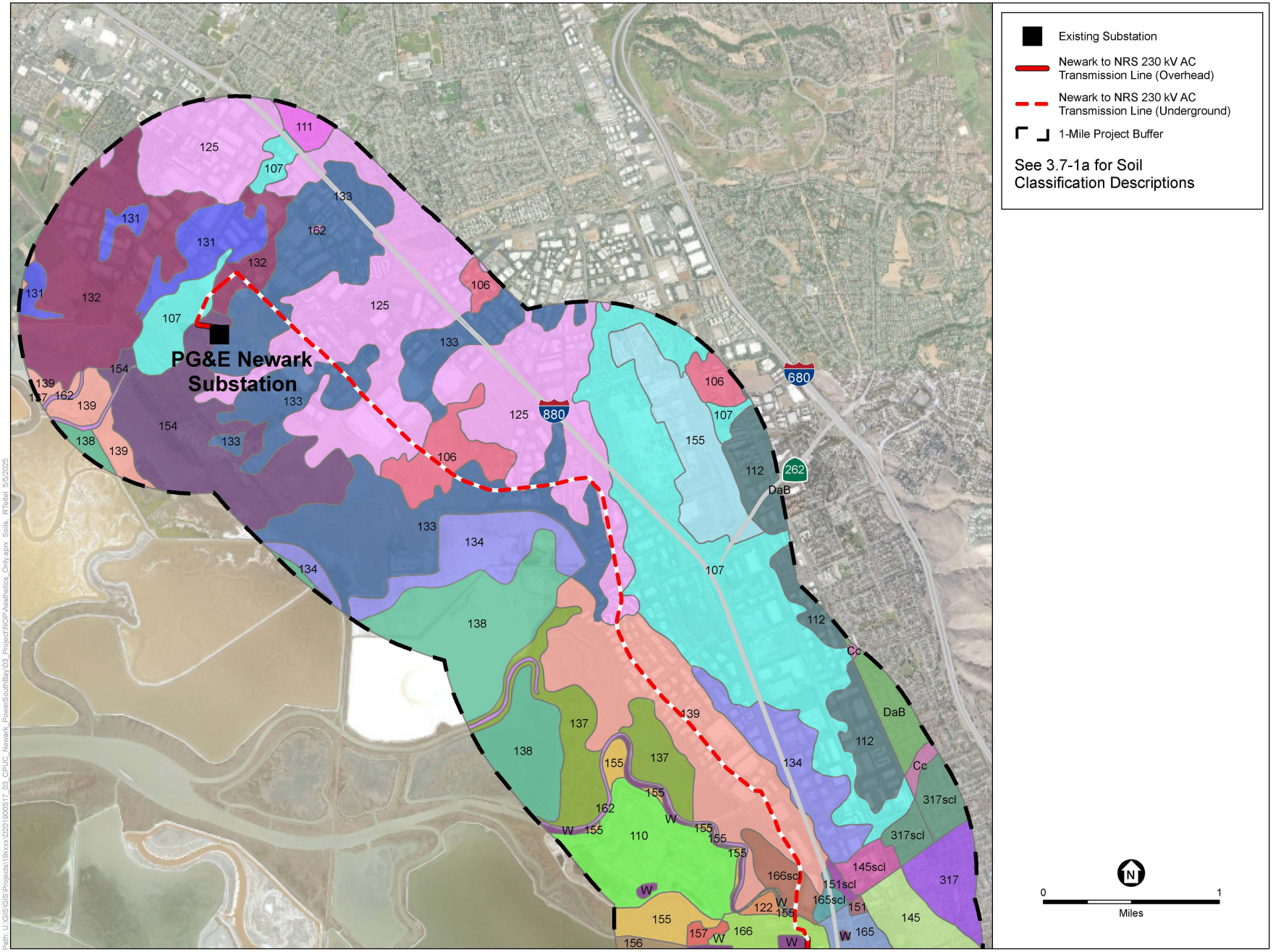
Path: U:\GIS\GIS\Projects\19xxx\D2019005\7_03_CPUC_Newark_PowerSouthBay\03_Project\NOP\Aesthetics_Only.aprx Soils Cover WMcCullough 1/22/2025

SOURCE: ESA, 2024; NRCS, 2024

Power the South Bay Project

Figure 3.7-1A
Soil Units in the Proposed Project Area

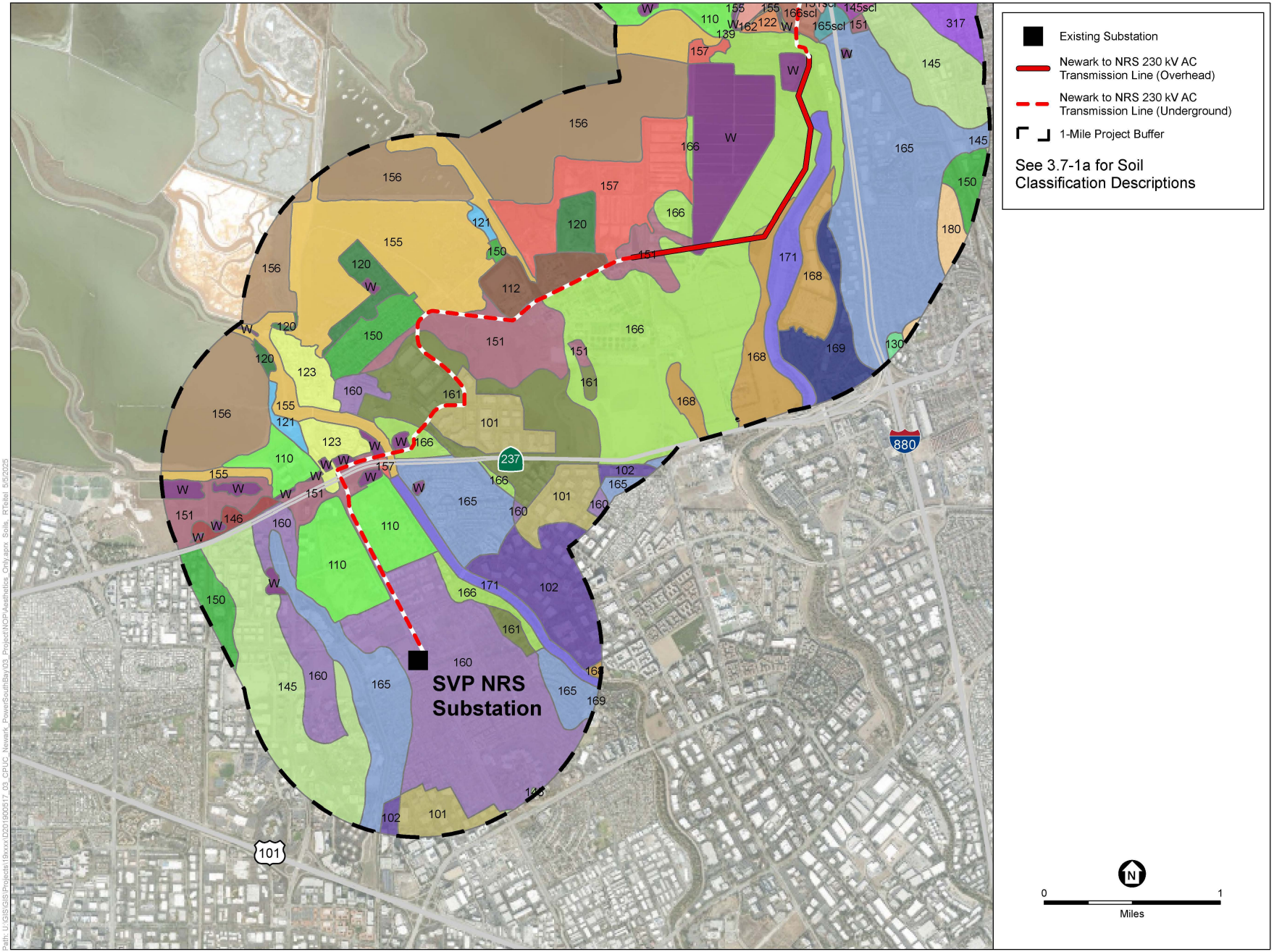
ESA



SOURCE: ESA, 2024; NRCS, 2024

Power the South Bay Project

Figure 3.7-1B
Soil Units in the Proposed Project Area



SOURCE: ESA, 2024; NRCS, 2024

Power the South Bay Project

Figure 3.7-1C
Soil Units in the Proposed Project Area

Stiffer soils generally experience less ground acceleration from seismic ground shaking. Portions of the Project area underneath the proposed Newark to NRS 230 kV AC 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 in a California Geological Survey Liquefaction Zone, which indicates that soils within the Project site could be at risk for settlement, lateral spreading, and damage to structures. Groundwater is very shallow in this area, typically within 10 feet of the surface (CGS 2001).

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 rock or soil materials.

Given that the Project site is located on the Santa Clara Valley floor away from any slopes, no previous landslides in the immediate area have occurred. Areas prone to landslides can be found in the foothill and mountain areas located to the east and west of the Project site, where steep slopes are present in the Santa Cruz Mountains and Diablo Range, or where inadequate ground cover accelerates erosion. There is no risk of large landslides where the Project is located because of its relatively flat topography (0–2 percent slope) and distance from hills, mountains, or slopes (CGS 2001). The Project site is also not located in an area of high landslide susceptibility or adjacent to any historical landslides, as indicated by the USGS U.S. Inventory and Susceptibility database (USGS 2024a).

Soils

The soil types along the Project alignments are listed in Table 3.7-2. 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: (1) the susceptibility of soil or surface material to erosion, (2) the transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition (State Water Board 2024). 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 at the Project alignments have low wind erodibility ratings, with soil at the Project site 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 site 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. These soils could be more susceptible to collapse.

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 percentage 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 shown in Table 3.7-1, soils are present on-site 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 areas located under the Project site (USGS

2024b). 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.

The Department of PaleoServices (2024) of the San Diego Natural History Museum prepared the Paleontological Resources Technical Report[1] in January 2024. The report summarizes the results of the paleontological records search of the paleontological collections at the 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 are located within the Project site. The report assigns a paleontological resource sensitivity rating to the geologic units underlying the Project site. 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 practices (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 and/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, and artificial fill is 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 site is underlain at the surface by Holocene-age alluvial, fluvial, and estuarine deposits, which likely transition at depths as shallow as 7 feet below ground surface (bgs) to Pleistocene-age alluvial deposits. Artificial fill is mapped along portions of the Project

[1] LSPGC intends to include this appendix with the Final Proponent's Environmental Assessment and Certificate of Public Convenience and Necessity application.

alignment and is also likely present elsewhere in the Project site 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 bgs (PaleoServices 2024).

The paleontological records search found no documented fossil collection localities from Pleistocene alluvial deposits within a 1-mile radius of the Project site (San Diego Natural History Museum paleontological collections data). However, the University of California Museum of Paleontology records search identified one documented fossil collection locality that lies within a 1-mile radius of the Project site (University of California Museum of Paleontology paleontological collections data). At this locality, an upper molar of Bison sp. was discovered at a depth of 2 feet bgs, west of Milpitas near the Coyote Creek channel, approximately 0.7 mile south of an overhead transmission pole; however, the age of this occurrence is described as "Recent or Pleistocene."

The Project alignment 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. Pleistocene-alluvial deposits with high paleontological potential were not mapped at the surface of the Project alignment but are known to underlie Holocene-age alluvial and fluvial deposits at relatively shallow depths around 7 feet bgs.

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, were 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 program to protect water quality through various sections of the CWA, including Sections 401–404 and 303(d). In California, implementation and enforcement of the National Pollutant Discharge Elimination System program is conducted through the State Water Resources Control Board and the nine regional water quality control boards. Section 402 of the CWA would apply to the Project because construction at the Project site would be required to control discharges of sediment and other pollutants from point sources, as discussed 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 state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

Federal Land Policy and Management Act of 1976

The Federal Land Policy and Management Act (United States Code Title 43, Sections 1701–1782) requires that public lands be managed in a manner that will protect the quality of their scientific values. Specifically, the law was established as a public land policy to "provide for the management, protection, development, and enhancement of the public lands." The law requires federal agencies to manage public lands so that environmental, historic, archaeological, and scientific resources are preserved and protected, where appropriate. Although this law does not refer specifically to fossils, the law does protect scientific resources such as significant fossils, including vertebrate remains. The law regulates the "use and development of public lands and resources through easements, licenses, and permits." The law requires public lands to be inventoried so that the data can be used to make informed land-use decisions, and requires permits for the use, occupancy, and development of certain public lands, including the collection of significant fossils for scientific purposes (United States Code Title 43, Section 1711).

Code of Federal Regulations Title 43

Under Code of Federal Regulations Title 43, Sections 8365.1–8365.5, the collection of scientific and paleontological resources, including vertebrate fossils, on federal land is prohibited. The collection of a "reasonable amount" of common invertebrate or plant fossils for noncommercial purposes is permissible (Code of Federal Regulations Title 43, Sections 8365.1–8365.5).

Paleontological Resources Preservation Act of 2009

The Paleontological Resources Preservation Act is part of the Omnibus Public Land Management Act of 2009 (Public Law 111-011, Subtitle D). This law directs the Secretary of the Interior or Secretary of Agriculture to manage and protect paleontological resources on federal land and to develop plans for inventorying, monitoring, and deriving the scientific and educational use of such resources. It prohibits removing paleontological resources from federal land without a permit, establishes penalties for violation of the law, and creates a program to increase public awareness about these resources. Paleontological resources collected under a permit must remain

United States property and must be preserved for the public in an approved repository and available for scientific research and public education. The Paleontological Resources Preservation Act also requires that the nature and location of paleontological resources on public lands remain confidential as a means of protecting the resources from theft and vandalism.

Section 6301 of the Paleontological Resources Preservation Act and the Departmental Proposed Rule at Code of Federal Regulations Title 43, Part 49 define a paleontological resource as:

> *Any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth, except that the term does not include— (A) any materials associated with an archaeological resource… (B) any cultural item… (3) Resources determined in writing by the authorized officer to lack paleontological interest or not provide information about the history of life on earth, based on scientific and other management considerations.*

Consistent with the definition of a paleontological resource under the Paleontological Resources Preservation Act, those paleontological resources that lack scientific interest (e.g., resources that are ubiquitous or do not provide information about the history of life on Earth) are considered scientifically non-significant fossils.

Omnibus Public Lands Act

The Omnibus Public Lands Act directs the Secretaries of the Interior and Agriculture to manage and protect paleontological resources on federal land using "scientific principles and expertise." This law incorporates most of the recommendations of the Secretary of the Interior's report titled *Assessment of Fossil Management on Federal and Indian Lands* (2000) to formulate a consistent paleontological resources management framework. In enacting the law, Congress officially recognized the scientific importance of paleontological resources on some federal lands by declaring that fossils from these lands are federal property that must be preserved and protected. Title VI, Subtitle D on Paleontological Resources Preservation codifies existing policies of federal agencies and provides the following:

- Uniform criminal and civil penalties for illegal sale and transport and theft and vandalism of fossils from federal lands.
- Uniform minimum requirements for the issuance of paleontological resource–use permits (i.e., terms, conditions, and qualifications of applicants).
- Uniform definitions for "paleontological resources" and "casual collecting."
- Uniform requirements for the curation of federal fossils in approved repositories.

Federal legislative protections for scientifically significant fossils apply to projects that take place on federal lands (with certain exceptions such as for U.S. Department of Defense projects), involve federal funding, require a federal permit, or involve crossing state lines. Because a portion of the Project site is located on federal agency–managed lands, federal protections for paleontological resources for those areas apply under the National Environmental Policy Act (NEPA), the Federal Land Policy and Management Act, and the Omnibus Public Lands Act's

paleontological resources preservation provisions. All paleontological work on federal agency lands must be approved and coordinated by the federal agency. All fossils collected from federal agency lands must be housed in a federally approved paleontological repository. The paleontological repository would be determined after coordination with the NEPA lead agency and the issuance of applicable permits for the Project.

3.7.2.2 State

California Public Utilities Commission General Order 95

The Electric Safety and Reliability Branch of the CPUC has jurisdiction over the safety of overhead and underground electric and communication lines and 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" include power lines, service drop lines, conductors, towers, poles, and other structures.

California Public Utilities Commission General Order 128

General Order 128 governs construction and operation of underground transmission lines associated with public utilities in the State of California. The stated purpose of 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, and to the public in general. 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; they include means for determining earthquake loads and 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 project's seismic design category. Once a project is categorized according to a seismic design category, design specifications can be determined. The CBC provisions 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.

California Division of Occupational Safety and Health

In accordance with California Division of Occupational Safety and Health (Cal/OSHA) regulations pertaining to temporary shoring (California Code of Regulations Title 8, Sections 1539–1543), excavations at project sites are required to be supported by conventional shoring methods such as soldier piles and lagging in order to prevent the excavation sidewalls from becoming unstable during construction.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was enacted in 1972 to protect structures for human occupancy 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 (California Public Resources Code Sections 2690–2699.6) directs the California Geological 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 by identifying, evaluating, and mitigating seismic hazards. Seismic hazard zone maps that identify Zones of Required Investigation have been generated because of the program. Counties and cities are then required to use the seismic hazard zone maps in their land use planning and building permit processes. The Project site 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 generated by construction activity into waters of the United States, where project construction that disturbs 1 acre or more of land surface or the project is part of a common plan of development or sale disturbing more than 1 acre of land surface. The permit regulates stormwater discharges during construction or demolition activities, such as clearing and excavation; building construction; 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 of1 (low), 2 (medium), or 3 (high), based both on the risk of sediment transport at the site and on the risk to receiving waters during periods of soil exposure (e.g., grading and site stabilization). The sediment risk level reflects the relative amount of sediment that could potentially 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 risk level for receiving waters 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 that the project develop and implement a stormwater pollution prevention plan (SWPPP) that includes best management practices (BMPs) to prevent sediment and other pollutants from contacting stormwater and moving off-site into receiving waters. The BMPs fall into several categories—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. In addition, the SWPPP must contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body that is included 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 the BMPs that the project 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 plan for monitoring sediment if the site discharges directly to a water body included 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 construction equipment and vehicles. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations and washing and fueling of vehicles and equipment. The Construction General Permit also sets post-construction standards (i.e., BMPs to be implemented 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 must 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 (California Public Resources Code 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 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 that 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. Therefore, 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 means 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.

City of Fremont General Plan

The City of Fremont General Plan includes the following policies pertaining to geology, soils, and paleontology that are applicable to the project (City of Fremont 2011):

> ***Policy 7-6.1: Awareness of Soil Conditions***. Ensure development projects take soil conditions into account.
>
> ***Policy 7-6.2: Minimize Soil Erosion***. Eliminate soil erosion from development to the maximum extent possible.
>
> ***Policy 10-1.1: Location of Buildings and Structures***. Regulate new development and redevelopment in a manner that avoids geologic hazards to life and property.
>
> ***Policy 10-1.2: Mitigation of Hazards***. Require proposed development in areas of potential land instability to evaluate and sufficiently mitigate such hazards through site planning, appropriate construction techniques, building design, and engineering.
>
> ***Policy 10-1.3: Limits on Grading***. Prohibit excessive and unnecessary grading activity, especially in areas of potential landslide risk as identified on State and local geologic hazard area maps or as identified during site reconnaissance.
>
> **Policy 10-2.1: Location of Buildings and Structures**. Regulate new development and redevelopment in a manner to minimize potential damage and hazards related to expected seismic activity.
>
> ***Policy 10-2.2: Building Setbacks from Fault***. Prohibit construction of structures for human occupancy (as defined by the State) including attached garages within 50 feet of an identified main fault trace, unless a setback less than 50 feet is approved through site specific geologic studies and associated peer review.
>
> ***Policy 10-2.3: Soil Engineering Standards***. Maintain and continually update construction and soil engineering standards that minimize seismic hazards to structures and building occupants.

City of Milpitas General Plan

The City of Milpitas General Plan includes the following policies pertaining to geology, soils, and paleontology that are applicable to the project (City of Milpitas 2021):

> ***Policy SA 1-1*****:** Require development to reduce risks to life and property associated with earthquakes, liquefaction, erosion, landslides, and unstable soil conditions.
>
> ***Policy SA 1-2*****:** Ensure that all new development and construction is in conformance with all applicable building standards related to geologic and seismic safety.
>
> ***Policy SA 1-5*****:** Require an erosion and sediment control plan prepared by a civil engineer, or other professional who is qualified to prepare such a plan, as part of any grading permit application for new development. The erosion and sediment control plan shall delineate measures to appropriately and effectively minimize soil erosion and sedimentation.
>
> ***Policy SA 1-6*****:** All structures and building foundations requiring a building permit located within areas containing expansive soils, or other soils conditions which, if not

corrected, would lead to structural defects, or unsafe conditions, shall be reviewed by a qualified engineer, who shall recommend corrective actions as appropriate to remedy on-site soil conditions.

Action CON-4b: If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the Planning Department shall be notified, the resources shall be examined by a qualified archaeologist, paleontologist, or historian for appropriate protection and preservation measures; and work may only resume when appropriate protections are in place and have been approved by the Planning Department.

City of San José General Plan

The City of San José General Plan includes the following policies pertaining to geology, soils, and paleontology that are applicable to the project (City of San José 2024):

***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 have been evaluated and if shown to be required, appropriate mitigation measures are 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.

City of Santa Clara General Plan

The City of Santa Clara General Plan includes the following goals and policies pertaining to geology, soils, and paleontology that are applicable to the project (City of Santa Clara, 2010):

Goal 5.6.3-G1: Protection and preservation of cultural resources, as well as archaeological and paleontological sites.

Goal 5.6.3-G2: Appropriate mitigation in the event that human remains, archaeological resources, or paleontological resources are discovered during construction activities.

***Policy 5.6.3-P1*:** Require that new development avoid or reduce potential impacts to archaeological, paleontological, and cultural resources.

***Policy 5.6.3-P2*:** Encourage salvage and preservation of scientifically valuable paleontological or archaeological materials.

***Policy 5.6.3-P4*:** Require that a qualified paleontologist/archaeologist monitor all grading and/or excavation if there is a potential to affect archeological or paleontological resources, including sites within 500 feet of natural water courses and in the Old Quad neighborhood.

***Policy 5.6.3-P5*:** In the event that archaeological/paleontological resources are discovered, require that work be suspended until the significance of the find and recommended actions are determined by a qualified archaeologist/paleontologist.

***Policy 5.10.5-P5*:** Regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards, including flooding, seismic, erosion, liquefaction, and subsidence dangers.

***Policy 5.10.5-P6*:** Require that new development is designed to meet current safety standards and implement appropriate building codes to reduce risks associated with geologic conditions.

***Policy 5.10.5-P7*:** Implement all recommendations and design solutions identified in project soils reports to reduce potential adverse effects associated with unstable soils or seismic hazards.

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 LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for portion the of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.7.3.1 LSPGC Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measures (APMs) to avoid or reduce potential impacts on geology, soils, and paleontological resources from the Project. This analysis assumes that the following APMs would be implemented by LSPGC as part of their 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 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 bgs [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.

- **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 would be responsible for the implementation of BMPs related to geology, soils, and paleontological resources. This analysis assumes that the following BMPs would be implemented by PG&E during construction of PG&E's portion of work for the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation).

- **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 [Cultural Resource Specialist] 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 [California Public Utilities Commission]. 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.

3.7.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to geology, soils, and paleontological resources within SVP's portion of the Project.

3.7.4 Significance Criteria

According to Appendix G of the CEQA *Guidelines*, except as provided in Public Resources Code Section 21099, the Project would result in a significant impact on geology, soils, and paleontological resources 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[2] 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 paleontology 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 federal, state, and local laws and regulations. This analysis also assumes that federal, state, and local 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 implementation of the Project as described in Chapter 2, *Project Description*, and compliance with the required regulatory requirements, the following environmental analysis identifies whether the Project 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 elements 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 and for ensuring 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

[2] The CBC no longer includes a Table 18-1-B. Instead, CBC Section 1803.5.3 describes the criteria for analyzing expansive soils.

appropriate standard of care for the particular region in California.[3] The California Professional Engineers Act (Business 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 ensuring CBC compliance before approval of the building permit.

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.

The Project would not cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. (*No Impact*)

The Project is not located on a known, active earthquake fault. The nearest earthquake fault zone is the Hayward fault zone, approximately 1.5 miles east of the Project site. There would be no impact related to the risk of loss, injury, or death involving rupture of a known earthquake fault.

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 3.7-1a: 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. (*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, approximately 1.5 miles east of the Project site. Ground shaking could result in damage to the Project through seismic shaking or seismically induced ground failure, therefore, impacts could be potentially significant.

However, the Project would be subject to the seismic design criteria of CPUC General Order 128 and the CBC, which require that all improvements be constructed to withstand anticipated ground shaking from regional fault sources. All underground transmission line segments included as part of the Project would be designed and constructed in compliance with General Order 128, which governs construction of underground transmission lines. The Project facilities, including the

[3] A geotechnical engineer specializes in 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.

transmission 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: Geotechnical Studies and Geologic Hazard Reduction Measures**.

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 in accordance with CPUC General Order 128 and the CBC. The Project would not include habitable structures. The construction of the substation upgrades, underground transmission lines, and associated infrastructure would be required to comply with the design, construction, and maintenance regulations established in CPUC General Order 128, the CBC, and the implementation of APM GEO-1. 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 3.7-1b: 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. (*Less than Significant*)

The Project site is in a California Geological Survey liquefaction zone, which is defined as an area where historical occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for ground displacements. Groundwater is very shallow in this area, typically within 10 feet of the surface. Therefore, the Project site 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 Order 128 and the CBC, which require that all improvements be constructed to withstand anticipated ground shaking from regional fault sources. All underground transmission lines included within the Project would be designed and constructed in compliance with General Order 128, which governs construction of underground transmission lines. The Project facilities 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, construction contractors would be required to avoid construction in areas with saturated soils to reduce impacts on soil structure, allow safe access, and avoid topsoil salvage in saturated soils to maintain soil structure.

With adherence to all applicable seismic recommendations of a California-registered, professional geotechnical engineer in accordance with CPUC General Orders 95 and 128, the CBC, 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 3.7-1c: 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 Project site consists of gently sloping (0–2 percent) topography along the Santa Clara Valley floor, and the site is not located directly near any significant slopes. The Project site is also not located in an area of high landslide susceptibility or adjacent to any historical landslides, as indicated by the U.S. Geological Survey U.S. Inventory and Susceptibility database. Landslides are not expected to occur on-site. Before construction, LSPGC would be required to conduct a site-specific geotechnical investigation, as required by APM GEO-1. The Project would adhere to all federal and state regulations, including CPUC General Order 128 and the CBC. All excavations should be designed and constructed in accordance with Cal/OSHA regulations. Given that the Project would be located on land with a low susceptibility to landslide, adhere to all applicable regulations, and implement APM GEO-1, impacts would be **less than significant**.

Mitigation: None required.

Criterion b) Whether the Project would result in substantial soil erosion or the loss of topsoil.

Project operation would not require any substantial earthwork. 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 SWPPP and APMs. There would be no impact on soil erosion or topsoil loss during Project operation. (*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*, the soils at the Project sites 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 underground transmission lines, modifications to the PG&E Newark 230 kV and SVP NRS 230 kV substations, and drilling/excavating for tubular steel poles installation. The Project would use horizontal bore (e.g., jack-and-bore or micro-tunnel) or horizontal directional drilling construction techniques to install conduit ducts where open cut trenching is not feasible. Approximately 111,500 cubic yards of material generated from grading and excavation would be hauled off-site, stockpiled, or wasted, and 81,500 cubic yards would be imported on-site. All clean spoils excavated would be used on-site to balance cut and fill, as feasible.

Soils at the Project site have various levels of susceptibility to erosion or the 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* in Section 3.7.2, *Regulatory Setting*. 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 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.

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. Furthermore, the Project would include various erosion-protection measures in Project design, including storm drain protection and installing wattles or silt fences during horizontal bore or horizontal directional drilling 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*)

The Project is not located in an area of known landslide risk. The Project sites are all relatively flat. 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.

As discussed in Section 3.7.1, *Environmental Setting*, the Project is located 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. Project construction would adhere to applicable codes and regulations, such as General Order 95, General Order 128, the CBC, and the Cal/OSHA requirements for excavation, trenching, and earthwork. LSPGC would also be required to 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 recommendations of the geotechnical reports and excavation safety requirements specified in CPUC General Orders 95 and 128, the CBC, and Cal/OSHA Construction Safety Orders 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*)

As described in Section 3.7.1, *Environmental Setting,* soil underlying the Project site is potentially expansive, or highly expansive. Expansive soils are prone to large volume changes (e.g., 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. Although the Project would be located on expansive soil, the implementation of APM GEO-1 and adherence to applicable regulations would 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 operations would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature. Project operation would not include routine activities that would require excavation. Therefore, there would be no risk of disrupting any previously undisturbed paleontological resources. (*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 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 site are assigned a low paleontological potential and likely transition to Pleistocene-age alluvial deposits as shallow as 7 feet bgs, which have a high paleontological potential. Although geologic units with high paleontological potential are mapped within one mile of the Project, the Project limits of construction would be entirely within surface geologic units with no or low paleontological potential.

Although the Project is located in an area of low paleontological potential, grading or excavation for Project could directly or indirectly destroy paleontological resources, if present. Therefore, LSPGC has proposed implementing two protective measures, **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 PRMMP, including monitoring procedures during earthwork and all excavations or grading at depths exceeding 7 feet bgs. APM PALEO-2 stipulates procedures to implement if paleontological resources are encountered during ground-disturbing activities.

With the incorporation of AMP PALEO-1 and APM PALEO-2, impacts related to paleontological resources during construction 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.

Section 3.0, includes Table 3.0-1, 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, 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)

As noted above, the Project would not cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. Further, the Project would not include habitable structures. Therefore, the Project would not contribute to cumulative effects related to this criterion and are not discussed further in a cumulative context. (*No Impact*)

3.7.6.2 Criterion a.ii)

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 strong seismic ground shaking. (*Less than Significant*)

As discussed in Impact 3.7-1a, 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.

However, Project and the 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 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 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. By design, these regulations are intended to reduce the cumulative risks from buildings and structures. All projects would be required to undergo a geotechnical investigation to identify and provide recommendations to address any seismic issues. Further, LSPGC would implement APM GEO-1, which would minimize impacts from geological hazards and disturbance to soils, as outlined above.

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 strong seismic ground shaking. Therefore, the Project's contribution to cumulative effects would not be cumulatively considerable, and the cumulative impact would be **less than significant**.

Mitigation: None required.

3.7.6.3 Criterion a.iii)

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 seismic-related ground failure, including liquefaction. (*Less than Significant*)

As discussed in Impact 3.17-1b, the Project and the cumulative projects are in a California Geological Survey liquefaction zone, where groundwater is very shallow, therefore, could be at risk for settlement, lateral spreading, and damage to structures.

However, as with Impact C.317-1a, the Project and the 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 codes is 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 risks from buildings and structures. All projects would be required to undergo a geotechnical investigation to identify and provide recommendations to address any seismic issues. Further, LSPGC would implement APM GEO-1, which would minimize impacts from geological hazards and disturbance to soils, as outlined above.

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, the Project's contribution to cumulative effects would not be cumulatively considerable, and the cumulative impact would be **less than significant**.

Mitigation: None required.

3.7.6.4 Criterion a.iv)

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 landslides. (*Less than Significant*)

The Project and the 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 projects' are also not located in an area of high landslide susceptibility or adjacent to any historical landslides, as indicated by the U.S. Geological Survey U.S. Inventory and Susceptibility database. Landslides are not expected to occur in the immediate vicinity of the Projects and 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 project impacts would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death related to landslides. Therefore, the Project's contribution to cumulative effects would not be cumulatively considerable, and the 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 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 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.

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 aa SWPPP as further outlined above. 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, and the 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*)

The Project and cumulative projects are not located in an area of known landslide risk. The Projects area is relatively flat, and as provided in Impact C.3.7-1c, the Project would have a less-than-significant impact related to landslide risk.

However, the Project area is located an area of known land subsidence and high risk of liquefaction, lateral spreading, and collapse. 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. Therefore, the Project, in combination with the cumulative projects, may potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

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 recommendations of the geotechnical report and excavation safety requirements specified in CPUC General Order 95 and 138, the CBC, and Cal/OSHA shoring regulations would 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 or collapse would not be cumulatively considerable and the 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 site 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 project would be subject, as applicable, to all applicable state and federal codes, such as CPUC General Orders 95 and 128, the CBC, and California Division of Occupational Health and Safety 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 cumulatively 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 geological feature. Project operation would not include routine activities that would require excavation. Therefore, the 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 potential one 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 is located 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.

However, with Project compliance with the regulatory requirements, as outlined in Section 3.7.2, and implementation of Project APMs PALEO-1 and APM PALEO-2, the Project would not cause a significant impact related to paleontological resources. Additionally, the cumulative projects would be required to implement similar measures under the Paleontological Resources Preservation Act of 2009 to reduce impacts on paleontological resources. Thus, the incremental impact of the Project would not be cumulatively considerable. For these reasons, the Project, in combination with the cumulative projects, would not directly or indirectly destroy a unique paleontological resources or site or unique geologic feature and there would be a less-than-significant cumulative impact.

Mitigation: None required.

3.7.7 References

American Society of Civil Engineers. 2016. Minimum Design Loads and Associated Criteria for Buildings and Other Structures.

CGS (California Geological Survey). 2001. *Seismic Hazard Zone Report for the Milpitas 7.5-Minute Quadrangle, Alameda, and Santa Clara Counties California*.

CGS (California Geological Survey). 2002. *California Geological Survey: Note 36 California Geomorphic Provinces*. Available: https://www.coastal.ca.gov/coastalvoices/resources/California_Geomorphic_Provinces.pdf. Accessed October 30, 2024.

CGS (California Geological Survey). 2024a. Geologic Map of California. Accessed November 6, 2024. Available: https://maps.conservation.ca.gov/cgs/gmc/.

CGS (California Geological Survey). 2024b. Earthquake Zones of Required Investigation. Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed October 30, 2024.City of San José. 2024. *Envision San José 2040 General Plan*. Adopted November 1, 2011; as amended on October 24, 2024. Available: https://www.sanjoseca.gov/home/showpublisheddocument/22359/637928744399330000. Accessed November 6, 2024.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

NRCS (U.S. Natural Resources Conservation Service). 2002. *Section I, FOTG, Wind Erosion Prediction: WEQ Introduction and Background*. June 2022. Available: https://efotg.sc.egov.usda.gov/references/Delete/2017-1-28/WindErosionPrediction2002.pdf. Accessed November 13, 2024.

NRCS (U.S. Natural Resources Conservation Service). 2004. "Understanding Soil Risks and Hazards: Using Soil Survey to Identify Areas with Risks and Hazards to Human Life and Property." Available: https://www.nrcs.usda.gov/resources/education-and-teaching-materials/understanding-soil-risks-and-hazards. Accessed December 23, 2024.

NRCS (U.S. Natural Resources Conservation Service). 2025. Web Soil Survey. Available: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed January 6, 2025.

PaleoServices San Diego Natural History Museum. 2024. *Paleontological Resources Technical Report LS Power Grid California, Power the South Bay Cities of Fremont, Milpitas, Santa Clara, and San José, California*.

SVP (Society of Vertebrate Paleontology). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources.

State Water Board (State Water Resources Control Board). 2024. *RUSLE K Values*. Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/guidance/k_factor_map.pdf. Accessed October 18, 2024.

Reclamation (U.S. Bureau of Reclamation). 1992. *Characteristics and Problems of Collapsible Soils.* Report No. R-92-02. February 1992. Available: https://www.usbr.gov/tsc/techreferences/rec/R9202.pdf. Accessed December 23, 2024.

USGS (U.S. Geologic Survey). 2018. "Land Subsidence in the Santa Clara Valley." Available: https://www.usgs.gov/centers/land-subsidence-in-california/science/land-subsidence-santa-clara-valley. Accessed January 6, 2025.

USGS (U.S. Geologic Survey). 2022. U.S. Quaternary Faults. Available: https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf. Accessed November 7, 2024.

USGS (U.S. Geologic Survey). 2024a. U.S. Landslide Inventory and Susceptibility. Available: https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=ae120962f459434b8c904b456c82669d. Accessed November 7, 2024.

USGS (U.S. Geologic Survey). 2024b. Areas of Land Subsidence in California. Available: https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html. Accessed November 7, 2024.

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 in the study area. For purposes of the evaluation of potential GHG 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 are based in part on GHG emissions estimated for the Project on behalf of LSPGC presented in **Appendix C**, *Air Quality, Greenhouse Gas, and Energy Calculations and Modeling*. The calculations were reviewed by 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 B**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to greenhouse gas emissions.

3.8.1 Environmental Setting

The Project is located in the Cities of Fremont, Milpitas, San José, and Santa Clara, California, in Alameda and Santa Clara counties. The Project would include construction and operation of a new 230-kilovolt (kV) alternating current transmission line, which would connect the substation modifications of the existing PG&E Newark 230 kV Substation and the existing SVP Northern Receiving Station (NRS) 230 kV 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 Earth's near-surface air and oceans since the mid-20th century. Natural processes and human actions have been identified as affecting the climate. Increasing GHG concentrations in the atmosphere since the 19th century resulting from human activities such as fossil fuel combustion and deforestation have unequivocally caused anthropogenic climate change (IPCC 2021).

GHGs in the atmosphere naturally trap heat by impeding the exit of solar radiation that has hit 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 surface habitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have trapped solar radiation and reduced the amount that is reflected into space, which has intensified the natural greenhouse effect and resulted in an increase in the 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 how much 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 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 activity 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 the decay of organic matter. Natural sources of methane include wetlands, permafrost,[1] 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

[1] *Permafrost* refers to soil or underwater sediment that remains below 0 degrees Celsius (32°F) continuously for 2 years or longer.

processes emit primarily oxides of nitrogen (NO_X), composed of NO_2 and nitrogen oxide (i.e., NO). Very small quantities of nitrous oxide may be formed during fuel combustion through the reaction of nitrogen and oxygen.

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 impacts 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 (CNRA) 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 *Safeguarding California Plan* identifies hundreds of ongoing actions and next steps state agencies are taking to safeguard Californians from climate impacts within a framework of 81 policy principles and recommendations (CNRA 2018). The 2022 Implementation Report for California's 2021 Climate Adaptation Strategy, released in 2022, outlines the State's progress in strengthening resilience across several critical areas, such as natural systems, water resources, coastal protection, public health, and community engagement. It emphasizes efforts to integrate climate adaptation into decision-making and highlights ongoing initiatives, while also outlining future steps to accelerate progress, including enhancing funding for local projects, strengthening cross-agency collaboration, and addressing emerging climate risks (CCSA 2022).

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. The contiguous U.S. has observed an average annual temperature of 54.4 degrees Fahrenheit (°F), which is 2.4°F above 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 2024). Likewise, Alameda 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 2024).

With climate change, extreme-heat conditions and heat waves are predicted to affect larger areas, last longer, and have higher temperatures. Heat waves, defined by NOAA's National Weather Service, is a period of abnormally hot weather generally lasting more than two days and are expected to become more frequent by the end of the 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 heat stroke (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, 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 (NOAA 2023). Rising seas could affect transportation infrastructure, utilities, and regional industries.

Agriculture

California has a massive agricultural industry that represents more than 13 percent of total U.S. agricultural revenue (CDFA 2020). Higher CO_2 levels can stimulate plant production and increase plants' water-use efficiency. However, a changing climate presents significant risks to agriculture: changes in maximum and minimum temperatures; reduction of winter chill hours; extreme heat, leading to additional costs for livestock cooling and losses in production; declines in water quality, groundwater security, soil health, and pollinator species; and increased pest pressures (CNRA 2018).

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).

3.8.1.4 Greenhouse Gas Emissions Inventories

U.S. Greenhouse Gas Emissions

In 2022, the United States emitted about 6,343 million $MTCO_2e$ of GHGs, 75 percent of which came from fossil fuel combustion for electricity, heat, and transportation. 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 latest year for which data are available from CARB), emissions from GHG-emitting activities statewide were 371.1 million $MTCO_2e$. 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 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), electricity (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.

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 the Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (see below).
- **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 33 percent by 2020 RPS goal 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.
- **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.
- **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.

- **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).

Senate Bill 97

In 2007, the California Legislature enacted SB 97, which required that the CEQA Guidelines be amended to incorporate the analysis and mitigation of GHG emissions from projects that are subject to CEQA. The amendments took effect March 18, 2010, and added Section 15064.4 to the CEQA Guidelines, specifically addressing the potential significance of GHG emissions. Section 15064.4 calls for a "good faith effort" to "describe, calculate, or estimate" GHG emissions and indicates that the analysis of the significance of any GHG impacts should include consideration of the extent to which projects would do any of the following:

- Increase or reduce GHG emissions.
- Exceed a locally applicable threshold of significance.
- Comply with "regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions."

The CEQA Guidelines also state that a project may be found to have a less-than-significant impact related to GHG emissions if it complies with an adopted plan that includes specific measures to sufficiently reduce GHG emissions (California Code of Regulations Title 14, Section 15064[h][3]).

Importantly, however, the CEQA Guidelines do not require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of GHG emissions.

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.

In the 2017 Scoping Plan Update, CARB recommends statewide targets of no more than 6 $MTCO_2e$ per capita by 2030 and no more than 2 $MTCO_2e$ per capita by 2050. CARB acknowledges that because the statewide per-capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the state, it is appropriate for local jurisdictions to derive evidence-based local per-capita goals based on local emissions sectors and growth projections.

Assembly Bill 1279 (California Climate Crisis Act)

Signed into law in September 2022, AB 1279 requires the state 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. In addition, 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 NO_X 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.

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. 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, the 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, the 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). Alternately, a project can show compliance with a qualified GHG reduction strategy that meets the criteria under CEQA Guidelines Section 15183.5(b).

City of Fremont General Plan

Chapter 7 of the City of Fremont General Plan (City of Fremont 2011) outlines general GHG goals and policies geared toward reducing GHG emissions impacts within the city. The following policy and implementation measures are applicable to the Project within the Fremont city limits:

> *Implementation 7-8.1.A: CAP Implementation*. Implement strategies in the CAP [climate action plan] to achieve the City's GHG reduction target.
>
> *Implementation 7-8.1.B: CAP Updates*. Update the CAP every five years to reflect updated GHG emissions data; review the appropriateness and adequacy of the City's GHG reduction target and determine whether revisions to the goals and strategies in the CAP are necessary.

Policy 7-8.2: Development Trends. Review development trends for consistency with targets of AB 32: Global Warming Solutions Act of 2006.

> *Implementation 7-8.2.B: Monitoring*. Monitor actions of the State Scoping Plan and Regional Climate Change planning activities, including SB 375, related to reduction targets for the year 2035 and 2050.

City of Fremont Climate Action Plan

Consistent with Policy 7-8.1 of the City of Fremont General Plan, the City of Fremont adopted its first CAP in 2012 as a means to assist the city in reducing its GHG emissions by 25 percent from a 2005 baseline level by the year 2020 (City of Fremont 2011). In 2019, the City of Fremont adopted a Carbon Neutrality Resolution for Fremont to achieve a 55 percent GHG emission reduction from a 2005 baseline level by the year 2030 and to become a carbon neutral city no later than 2045. The latest CAP, titled *Climate Ready Fremont*, was adopted in October 2023 (City of Fremont 2023). The General Plan has developed a framework of key strategies to serve as a foundation for the CAP and is aligned with the State of California's GHG emission targets.

The City of Fremont's community GHG reduction targets for *Climate Ready Fremont* include reducing GHG emissions 55 percent below 2005 levels (approximately 30 percent below 2018 levels) by 2030 and achieving carbon neutrality by 2045.

To achieve these goals, Climate Ready Fremont outlines 31 strategies that will both mitigate GHG emissions and enhance Fremont's ability to adapt to the impacts of climate change. The strategies are organized under the following eight focus areas: Buildings and Energy, Infrastructure and Equipment, Land Use and Mobility, Materials and Waste, Natural and Urban Landscapes, Adaptation and Resiliency, Green and Circular Economy, and Public Participation and Engagement.

City of Milpitas General Plan

The Conservation and Sustainability chapter of the City of Milpitas General Plan (City of Milpitas 2021) outlines general climate action goals, policies, and actions geared toward reducing GHG emissions impacts within Milpitas. The goal listed below is applicable to the Project.

> **Goal CON-1:** Ensure a sustainable future for the City of Milpitas by promoting a carbon free energy future that increases renewable resources, conservation, and efficiency throughout the City.

City of Milpitas Climate Action Plan Update

In 2022, the City of Milpitas adopted its CAP Update, which outlines strategies and measures that the City will undertake to achieve its proportional share of state GHG emissions reduction targets (City of Milpitas 2022). The CAP Update has two overarching objectives: (1) to reduce GHG emissions from local activities to achieve GHG reduction targets and (2) to build community resilience to prepare for and adapt to the impacts of climate change. As part of the CAP Update, the City includes a CAP Consistency Checklist, to provide a streamlined review process for all proposed development projects that are subject to discretionary review and/or trigger environmental review pursuant to CEQA.

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 following policy is applicable to the Project:

> ***Policy MS-14.3*:** Consistent with the CPUC's California Long Term Energy Efficiency Strategic Plan, as revised, and when technological advances make it feasible, require all new residential and commercial construction to be designed for zero net energy use.

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.

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 establishes 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 the 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 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.

City of Santa Clara General Plan

Chapter 5 of the City of Santa Clara General Plan (City of Santa Clara 2010) outlines general goals and policies geared toward reducing GHG impacts within the city. The following GHG-related goal and policy are applicable the Project within the Santa Clara city limits:

> **Goal 5.10.2-G2:** Reduce GHG emissions that meet the State and regional goals and requirements to combat climate change.
>
> > ***Policy 5.10.2-P2*:** Encourage development patterns that reduce vehicle miles traveled and air pollution.

City of Santa Clara Climate Action Plan

The City of Santa Clara adopted its first CAP in 2013 as a means to assist the city in reducing GHG emissions. The latest CAP was adopted in October 2023 (City of Santa Clara 2022). The CAP includes outlines 65 strategies aligned with the state's GHG emission targets that will both reduce GHG emissions and enhance the City of Santa Clara's ability to adapt to the impacts of climate change. The strategies are organized under the following five focus areas: (1) Buildings and Energy, (2) Transportation and Land Use, (3) Materials and Consumption, (4) Natural Systems and Water Resources, and (5) Community Resilience and Wellbeing.

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 LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.8.3.1 LSPGC Applicant-Proposed Measures

LSPGC has proposed no Applicant-proposed measures pertaining to greenhouse gas emissions within LSPGC's portion of the Project.

3.8.3.2 PG&E Best Management Practices and Field Protocols

The following PG&E best management practice (BMP) addresses potential effects related to GHG emissions attributable to PG&E's portion of the Project. The impact analysis assumes that the following BMP would be implemented by PG&E as part of their portion of work for the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation).

- **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.

3.8.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to greenhouse gas emissions within SVP's portion of the Project.

3.8.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, 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 criteria for determining the significance of GHG emissions.[2] Instead, lead agencies are to make a "good-faith effort" to "describe, calculate, or 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."

As described above, the BAAQMD has adopted its *2022 CEQA Thresholds and Guideline Update*. The 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, 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 emission 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 South Coast Air Quality Management District and widely used as an industry standard. This approach is consistent with the California Governor's Office of Planning and Research's *CEQA and Climate Change Advisory Discussion Draft*. 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 the BAAQMD's stationary-source threshold of 10,000 $MTCO_2e$. The emissions are compared to the annual threshold in Table 3.8-2.

The Project's estimated GHG emissions were determined using assumptions about construction and operation equipment provided by LSPGC and the methods established in the California Emissions Estimator Model Version 2022.1. On November 12, 2024, several months after LSPGC filed its application with the CPUC, the California Independent System Operator Board of Governors approved a modified version of the Project (see Section 2.1, *Introduction*). The air pollutant emissions modeling for the revised Project was performed based on a 24-month construction scenario. However, the duration of construction was also extended by an additional 2 months, resulting in a 26-month construction period (see Section 2.9.4, *Construction Schedule*). This was not accounted for in the revised modeling.

[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.

Based on Environmental Science Associates' review of these Project changes, there are no substantive changes to Project components or Project construction activities beyond those previously analyzed in the 24-month construction scenario. This extension represents a conservative approach and does not result in a substantial change to the modeling outcomes. Therefore, the impacts presented below represent the most conservative effects. All inputs, estimates, and calculations are detailed in Appendix C.

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 not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (*Less than Significant*)

Construction

As discussed in Section 2.9.4, *Construction Schedule*, Project construction would emit GHGs over a period of approximately 26 months. The main components of Project construction would consist of modifications to the existing PG&E Newark 230 kV and SVP NRS 230 kV substations and construction of the new transmission lines between the substations. 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 Activity*, summarizes the GHG emissions by construction activity based on the equipment usage and workforce assumptions provided in **Appendix A**, *Construction Equipment and Workforce Table.*

TABLE 3.8-1
PROJECT GREENHOUSE GAS EMISSIONS BY CONSTRUCTION ACTIVITY

Construction Activity and Year	CO_2e (metric tons per year)[a]
Newark Substation 2026	43
Newark Substation 2027	503
Newark Substation 2028	63
NRS Substation 2026	145
NRS Substation 2027	219
NRS Substation 2028	71
Transmission Lines 2026	4,775
Transmission Lines 2027	3,470
Transmission Lines 2028	381
Total Emissions	**9,670**
Amortized Emissions (30 years)	**322**

NOTES:
CO2e = carbon dioxide equivalent; NRS = Northern Receiving Station
SOURCE: LSPGC 2025

Table 2-9*, Proposed Construction Schedule,* in Chapter 2, *Project Description,* shows the seven different phases of construction activity, ranging from long- to short-term construction periods. Construction during these phases would use various types of off-road heavy-duty construction equipment, such as forklifts, loaders, graders, cranes, excavators, and generator sets. Likewise, on-road vehicle trips from workers, vendors, and heavy-duty haul trucks would occur during each phase. The Project assumes compliance with **PG&E BMP AQ-1**, **Vehicle Idling**, for PG&E's components at the Newark Substation, which would impose idling restrictions and result in less fuel combustion and energy consumption, thus reducing the Project's construction-related GHG emissions.

Although GHGs generated during construction are considered one-time emissions, it is important to include them when assessing all long-term GHG emissions associated with the Project. Therefore, construction GHG emissions have been amortized over the Project's 30-year lifetime in accordance with the South Coast Air Quality Management District's GHG analysis methodologies, as described above (SCAQMD 2008). As identified in Table 3.8-1, the Project would generate approximately 9,670 $MTCO_2e$ over an estimated conservative 24-month construction period. Amortized over an assumed 30-year Project lifetime, construction emissions would be approximately 322 $MTCO_2e$ per year.

Operations and Maintenance

Operation of the Project would not increase from current existing levels at both the PG&E Newark 230 kV and SVP NRS 230 kV substations as a result of the substation modifications. Operation of the new transmission line would be remote, and inspection and maintenance activities would be infrequent and would not be expected to result in emissions beyond existing conditions at the substations. **Table 3.8-2**, *Estimated Operational Greenhouse Gas Emissions*, summarizes the amortized construction emissions combined with the emissions that would be associated with the Project's long-term operations and maintenance activities. The combined annual GHG emissions estimated for the Project are 322 $MTCO_2e$ per year, which is well below the thresholds of significance established by the BAAQMD.

TABLE 3.8-2
ESTIMATED OPERATIONAL GREENHOUSE GAS EMISSIONS

Operational Locations	CO_2e (metric tons per year)[a]
Newark Operation (exceeding existing emissions)	0
NRS Substation Operation (exceeding existing emissions)	0
Amortized Construction Emissions	322
Total Construction and Operational	**322**
Threshold	**10,000**
Exceeds Threshold?	**No**

NOTES:
CO_2e = carbon dioxide equivalent; NRS = Northern Receiving Station
a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix C.
SOURCE: LSPGC 2025

Therefore, Project construction and operation 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 would not 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, construction of the Project 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.

Construction of the Project would 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. Construction of the Project would incorporate PG&E BMPs, consistent with the requirements and intentions of the applicable state plans, policies, and regulations identified in Section 3.8.2. The amortized construction emissions associated with the Project do not exceed the quantitative significance thresholds adopted by the BAAQMD. For these reasons, construction of the Project would not conflict with any applicable plan, policies, or regulations, and this impact would be **less than significant**.

Operations and Maintenance

As discussed under Impact 3.8-2, operations and maintenance of the Project would not generate GHG emissions beyond existing emissions, and the combined annual GHG emissions estimated for the Project would be 322 $MTCO_2e$ per year. Furthermore, the Project's electrical upgrades and improvements would serve to stabilize current and long-term forecasts of electrical demand in the region. Although the Project would not be linked directly to a renewable energy project, it would contribute to the necessary infrastructure needed to achieve large-scale reductions in GHG emissions as a provider for a resilient electrical infrastructure, which is a requirement for electrification and decarbonization and which is a key goal and strategy for the Cities of Fremont, Milpitas, San José, and Santa Clara to reduce GHG emissions. And as indicated in Chapter 2, one of the Project's objectives is to "facilitate the deliverability of energy from existing and proposed renewable generation projects to the Greater Bay Area…". While the Project is not directly linked to a specific renewable energy project, the Project's purpose is partly to facilitate deliverability of renewable energy. Therefore, supporting stabilizing long-term forecasts of electrical demand in the region.

For these reasons, operation of the Project would not conflict with any applicable plan, policies, or regulations, and this impact would be **less than significant**.

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 greenhouse gas emissions 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.

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 on a global scale. The GHG emissions from an individual project would not individually generate sufficient GHG emissions 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 emissions of GHGs. While 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. As such, the significance presented in this impact is based on a determination of whether the GHG emissions from the Project represent a cumulatively considerable contribution to climate change.

As presented in Section 3.8.5.2, construction and operation of the Project would result in emissions of GHGs from construction equipment and worker trips. Over the entire 26-month construction period of the Project, approximately 9,670 metric tons CO_2e would be emitted, and over the long-term, net increase in operations and maintenance activity emissions would occur. When amortized, construction emissions would be approximately 322 metric tons CO_2e annually. These emissions would fall well below the 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/or 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 the BAAQMD. Additionally, construction of the Project would incorporate PG&E BMPs, consistent with the requirements and intentions of the applicable state plans, policies, and regulations identified in Section 3.8.2. For these reasons, construction of the Project would not conflict with any applicable plan, policies, or regulations. Therefore, the construction and operation impact of the Project 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.

3.8.7 References

BAAQMD (Bay Area Air Quality Management District). 2022. *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans.* April 2022. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-b-thresholds-for-evaluating-significance-of-climate-impacts_final-pdf.pdf?rev=10305f45037b41dba2cd1b45b288d54b. Accessed August 2024.

BAAQMD (Bay Area Air Quality Management District). 2023. *2022 California Environmental Quality Act Air Quality Guidelines*. Revised April 20, 2023. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed August 2024.

Cal-Adapt. 2024. Local Climate Change Snapshot. Available: https://cal-adapt.org/tools/local-climate-change-snapshot. Accessed November 2024.

CARB (California Air Resources Board). 2008. *Climate Change Scoping Plan: A Framework for Change*. December 2008. Available: https://ww3.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed June 2024.

CARB (California Air Resources Board). 2014. *First Update to the Climate Change Scoping Plan: Building on the Framework.* May 2014. Available: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed June 2024.

CARB (California Air Resources Board). 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. November 2017. Available: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed June 2024.

CARB (California Air Resources Board). 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. Final. December 2022. Available: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents. Accessed June 2024.

CARB (California Air Resources Board). 2024a. GHG Global Warming Potentials. Available: https://ww2.arb.ca.gov/ghg-gwps. Accessed June 2024.

CARB (California Air Resources Board). 2024b. Current California GHG Inventory Data: 2000–2022 GHG Inventory (2024 Edition). Available: https://ww2.arb.ca.gov/ghg-inventory-data. Accessed November 2024.

CCSA (California Climate Adaptation Strategy). 2022. California Climate Adaptation Strategy Implementation Progress Report Available: https://climateresilience.ca.gov/overview/docs/20240405-Climate_Adpatation_Strategy_Report_2023.pdf. Accessed February 2025.

CDFA (California Department of Food and Agriculture). 2020. *California Agricultural Statistics Review, 2019–2020*. Available: https://www.cdfa.ca.gov/Statistics/PDFs/2020_Ag_Stats_Review.pdf. Accessed November 2024.

City of Fremont. 2011. *City of Fremont General Plan*. Adopted December 2011. Available: https://www.fremont.gov/government/departments/community-development/planning-building-permit-services/plans-maps-guidelines/general-plan. Accessed November 2024.

City of Fremont. 2023. *Climate Ready Fremont: An Update to the Climate Action Plan*. Adopted October 10, 2023, Resolution No. 2023-49. Available: https://www.fremont.gov/about/sustainability/climate-action-plan. Accessed November 2024.

City of Milpitas. 2021. *Milpitas 2040 General Plan*. Adopted March 9, 2021. Available: https://www.milpitas.gov/370/Milpitas-2040-General-Plan. Accessed November 2024.

City of Milpitas. 2022. *Milpitas Climate Action Plan Update*. August 2022. Available: https://www.milpitas.gov/313/Climate-Action-Plan. Accessed November 2024.

City of San José. 2020. *City of San José 2030 Greenhouse Gas Reduction Strategy*. August 2020. Available: https://www.sanjoseca.gov/home/showpublisheddocument/63605/. Accessed August 2024.

City of San José. 2024. *Envision San José 2040 General Plan*. Adopted November 1, 2011; as amended on October 24, 2024. Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan. Accessed August 2024.

City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted November 16, 2010. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed November 2024.

City of Santa Clara. 2022. *City of Santa Clara Climate Action Plan*. Adopted June 2022. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan/climate-action-plan. Accessed November 2024.

CNRA (California Natural Resources Agency). 2009. *2009 California Climate Adaptation Strategy: A Report to the Governor of the State of California in Response to Executive Order S-13-2008*. Available: https://resources.ca.gov/CNRALegacyFiles/docs/climate/Statewide_Adaptation_Strategy.pdf. Accessed June 2024.

CNRA (California Natural Resources Agency). 2014. *Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy*. July 2014. Available: https://resources.ca.gov/CNRALegacyFiles/docs/climate/Final_Safeguarding_CA_Plan_July_31_2014.pdf. Accessed June 2024.

CNRA (California Natural Resources Agency). 2018. *Safeguarding California Plan: 2018 Update, California's Climate Adaptation Strategy*. January 2018. Available: https://resources.ca.gov/CNRALegacyFiles/docs/climate/safeguarding/update2018/safeguarding-california-plan-2018-update.pdf. Accessed June 2024.

Cook, J., N. Oreskes, P.T. Doran, W.R.L. Anderegg, B. Verheggen, E.W. Maibach, J.S. Carlton, S. Lewandowsky, A.G. Skuce, S.A. Green, D. Nuccitelli, P. Jacobs, M. Richardson, B. Winkler, R. Painting, and K. Rice. 2016. "Consensus on Consensus: A Synthesis of Consensus Estimates on Human-Caused Global Warming." *Environmental Research Letters* 11(4). Available: https://iopscience.iop.org/article/10.1088/1748-9326/11/4/048002. Accessed June 2024.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994, effective July 8, 1994, Decision 94-06-014; modified August 11, 1995, effective September 10, 1995, Decision 95-08-038; modified December 14, 2023, effective December 14, 2023, Decision 23-12-035. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

IPCC (Intergovernmental Panel on Climate Change). 2021. Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [eds. V. Masson-Delmotte, P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou], 3–32. Cambridge, UK, and New York: Cambridge University Press. Available: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf. Accessed June 2024.

IPCC (Intergovernmental Panel on Climate Change). 2022. *Climate Change 2022: Mitigation of Climate Change.* Working Group III Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Available: https://www.ipcc.ch/report/sixth-assessment-report-working-group-3/. Accessed June 2024.

LSPGC (LS Power Grid California, LLC). 2025. *Proponent's Environmental Assessment for LS Power Grid California, LLC's Power the South Bay Project.* May 2024. Amended February 2025. Available: https://ia.cpuc.ca.gov/environment/info/esa/psb/pdfs/Filed_PEA.pdf. Accessed November 4, 2024.

NOAA (National Oceanic and Atmospheric Association). 2022. "The Impact of Wildfires on Climate and Air Quality." NOAA Wildfires/FIREX Fact Sheet. Available: https://csl.noaa.gov/factsheets/csdWildfiresFIREX.pdf. Accessed June 2024.

NOAA (National Oceanic and Atmospheric Association). 2023. Climate Change: Global Sea Level. Available: https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level. Last updated August 22, 2023. Accessed November 2024.

NOAA (National Oceanic and Atmospheric Association). 2024. Assessing the U.S. Climate in 2023. Available: https://www.ncei.noaa.gov/news/national-climate-202312. Last updated January 9, 2024. Accessed November 2024.

Office of the Governor. 2015. "Governor Brown Establishes Most Ambitious Greenhouse Gas Reduction Target in North America." News release, April 29, 2015. Available: https://archive.gov.ca.gov/archive/gov39/2015/04/29/news18938/index.html. Accessed November 2024.

OPR (California Governor's Office of Planning and Research). 2018. *Discussion Draft: CEQA and Climate Change Advisory*. December 2018. Available: https://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Adivsory.pdf. Accessed June 2024.

RCCC (Red Cross Red Crescent Climate Centre). 2019. *Heatwave Guide for Cities*. July 2019. Available: https://www.climatecentre.org/downloads/files/IFRCGeneva/RCCC%20Heatwave%20Guide%202019%20A4%20RR%20ONLINE%20copy.pdf. Accessed November 2024.

SCAQMD (South Coast Air Quality Management District). 2008. *Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold.* October 2008. Available: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf. Accessed December 2024.

USEPA (U.S. Environmental Protection Agency). 2024a. Climate Change Indicators: U.S. and Global Temperatures. Available: https://www.epa.gov/climate-indicators/climate-change-indicators-us-and-global-temperature. Last updated June 2024. Accessed November 2024.

USEPA (U.S. Environmental Protection Agency). 2024b. *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990–2022.* EPA 430-R-24-004. Available: https://www.epa.gov/system/files/documents/2024-04/us-ghg-inventory-2024-main-text_04-18-2024.pdf. Accessed May 2024.

Westerling, A.L. 2018. *Wildfire Simulations for California's Fourth Climate Change Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate.* A Report for California's Fourth Climate Change Assessment. CCCA4-CEC-2018-014. August 2018. Available: https://www.energy.ca.gov/sites/default/files/2019-11/Projections_CCCA4-CEC-2018-014_ADA.pdf. Accessed June 2024.

3.9 Hazards and Hazardous Materials

This section evaluates the Project's potential impacts on hazards and hazardous materials. 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 for the EIR. **Appendix B***, Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to hazards and hazardous materials.

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 defined as the footprint of the Project sites and alignment, including all areas of temporary or permanent ground disturbance, hazardous materials sites, schools, and wildland fires within 0.125 mile of the Project site and transmission line alignment. Additionally, it covers airports, air traffic, and helicopter use within two miles of the Project site boundaries and transmission line alignment, and haul routes used for transporting hazardous materials and wastes associated with the Project.

3.9.1.1 Hazardous Materials

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 hazardous wastes. Under state and federal and 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). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific criteria established in CCR Title 22, Sections 66261.20–66261.24. Hazardous substances are regulated by multiple agencies, as described in the 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.

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. Additionally, the DTSC EnviroStor database provides information for state and federal response sites; voluntary school and military cleanups; 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 that existing site uses, combined with the levels of identified 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 search of the databases identified nine hazardous materials release site cases at or within 0.125 mile of the Project, 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 Area's Vicinity*.

The Cisco Systems Site 6/Syntax Court Disposal Site has land use restrictions relevant to the Project that are discussed further below.

3.9.1.2 Proximity to Schools

The Project would be located within 0.25 mile of one school. The George Mayne Elementary School in Alviso would be located 0.15 mile from the Newark to NRS 230-kilovolt (kV) AC transmission line alignment (transmission line) and across the street from Staging Areas 10, 11, and 12.

3.9.1.3 Proximity to Airports

The Project would not be within two miles of an airport. The nearest airports are San José Mineta International Airport, located 2.25 miles south, and Moffett Federal Airfield, located 3.75 miles west of the Project. However, approximately 1.25 miles of the transmission line would fall within the Airport Influence Area for San José Mineta International Airport (City of San José 2024a). The Federal Aviation Regulations Part 77 imposes height restrictions near airports, and the Project area would have height limitations of 262 to 462 feet above ground surface.

TABLE 3.9-1
OPEN HAZARDOUS MATERIALS CLEAN-UP SITES IN THE PROJECT AREA'S VICINITY

Name	Location	Contaminant(s) of Concern (COC)	Site Status
PG&E Newark 230 kV Substation	6453 Automall Parkway, Fremont	Arsenic and total petroleum hydrocarbons	Open – Assessment and Interim Remedial Actions as of 11/28/1994
Crown Cork & Seal Company, Inc.	41099 Boyce Road, Fremont	Diesel, ethylbenzene, heating oil or fuel oil, naphthalene, tetrachloroethylene, toluene, total petroleum hydrocarbons, and xylene	Open – Eligible for closure as of 8/25/2021
San José–Santa Clara Regional Wastewater Facility	700 Los Esteros Road, San José	Polychlorinated biphenyls	Open – Long-term Management as of 2/14/2022
San José Water Pollution Control Plant	700 Los Esteros Road, San José	Diesel	Open – Inactive as of 9/23/2015
San José City Data Center Development	1657 Alviso Milpitas Road, San José	None Specified	Open – Assessment and Interim Remedial Actions as of 6/8/2020
Summerhill Homes	2343 Calle Del Mundo, Santa Clara	Trichloroethylene	Open – Site Assessment as of 8/10/2020
D&H Manufacturing	2301 Calle De Luna, Santa Clara	Tetrachloroethene and 1,1,1 trichloroethane	Open – Site Assessment as of 10/1/2018
Related Tasman East Phase I Development	2300 Calle De Luna, Santa Clara	None Specified	Open – Assessment and Interim Remedial Actions as of 10/28/2019
IDC of California Inc.	1601 Dixon Landing Road, Milpitas	None Specified	None Specified
Cisco Systems Site 6/ Syntax Court Disposal Site	North First Street and Syntax Court, San José	Metals and volatile organic compounds	Closed – Cleanup program site and O&M site with land use restrictions

NOTES:

COC = Contaminant(s) of Concern; DTSC = Department of Toxic Substances Control; kV = kilovolt; O&M = operation and maintenance; SWRCB = State Water Resources Control Board

Open – Remediation: An approved remedy or remedies has/have been selected for the impacted media at the site, and the responsible party (RP) is implementing one or more remedy under an approved cleanup plan for the site.

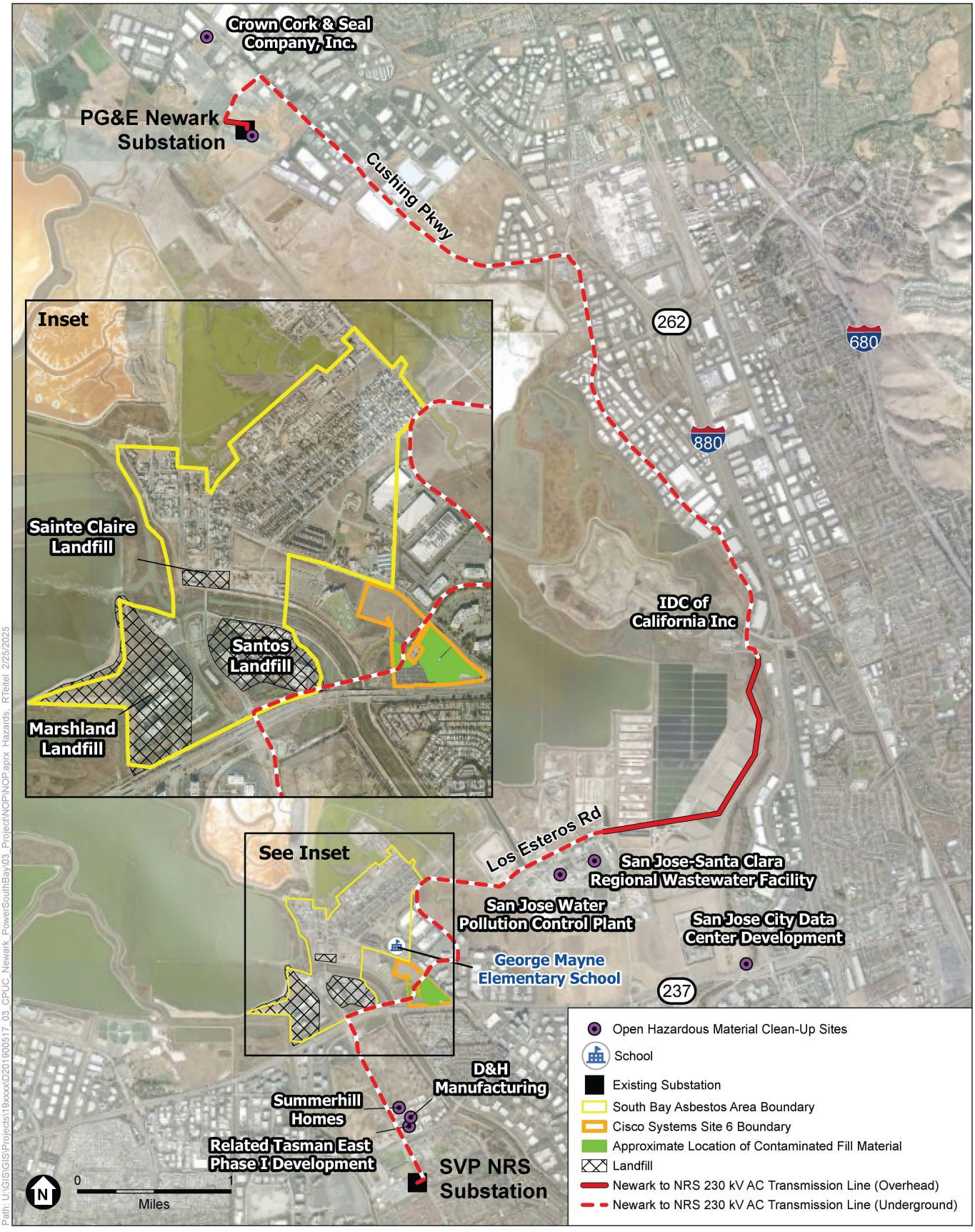
Open – Site Assessment: Site characterization, investigation, risk evaluation, or site conceptual model development are occurring at the site.

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.

SOURCE: DTSC 2024; SWRCB 2024.

3.9.1.4 Wildland Fire Hazard

In California, fire hazard severity zones are designated by the California Department of Forestry and Fire Protection (CAL FIRE) (CAL FIRE 2024). CAL FIRE 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's transmission line alignment is located within areas with a fire hazard risk. Additionally, the CPUC High Fire Threat District **(**HFTD) map indicates that the Project sites and alignments are not within an HFTD (CPUC 2021).



SOURCE: DTSC, 2024

Power the South Bay Project

Figure 3.9-1
Open Hazardous Materials Clean-Up Sites in the Project Vicinity

3.9.1.5 Unexploded Ordnance

No military bases are near the alignment and the entire Project would be located within developed cities. Therefore, no unexploded ordnance sites are at or near the Project.

3.9.1.6 The South Bay Asbestos Superfund Site

From 1953 to 1982, the Marshland and Santos landfills in the San José Alviso District accepted materials that contained asbestos from a cement pipe manufacturer. Additionally, before being incorporated into the city of San José, the Alviso District erected a ring levee that was built from locally sourced quarried rock that contained naturally occurring asbestos. The U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers removed the ring levee, installed landfill caps, paved the track yards, and restored wetlands. It is required that the landfill caps be inspected annually, repaired, and maintained. The U.S. Environmental Protection Agency conducted five Five-Year Reviews of the site and determined that the implemented solutions successfully protected public health. However, continued success relies on updated remedies to replace deed restriction requirements with water board and state regulations (EPA 2024).

3.9.1.7 Cisco Systems 6/Syntax Court Disposal Site

Staging Areas 11 and 12 and an underground portion of the transmission line are located within the Cisco Systems Site 6 (EnviroStor Case Number 43010027)/Syntax Court Disposal Site (GeoTracker Case Number T10000007316), an approximately 19-acre site with soil contaminated with heavy metals, including lead and arsenic, as well as volatile organic compounds in soil vapor and shallow groundwater. A soil management plan and health and safety plan were prepared in 2001 to guide handling of potentially contaminated soil within the site, which was named Cisco Systems Site 6. Because the contaminated fill material was left in place, a "Covenant to Restrict Use of Property" was put in place on May 23, 2003, and includes the following restrictions and requirements for the site, which could affect some aspects of Project construction:

- No residence for use as human habitation.
- No hospital for humans.
- No schools for persons under 21 years of age or day care centers for children.
- California Department of Toxic Substances Control (DTSC) access for inspection, monitoring, or other activities necessary to protect public health and the environment.
- Written notice to DTSC at least 14 days before any activities that will disturb the soil at or below 1.5 feet below grade.
- Completion of activities that disturb the soil at or below 1.5 feet below grade in accordance with procedures described in the soil management plan and health and safety plan approved on April 27, 2001, by DTSC.
- Management of contaminated soils brought to the surface in accordance with applicable provisions of federal and state and law.
- No notice required for activities that disturb only the top 1.5 feet of soil below grade. However, upon conclusion of such activities, at least 1.5 feet of clean soil must be maintained above the contaminated fill layer.
- No cultivation of food (cattle, food crops).

3.9.1.8 San José-Santa Clara Regional Wastewater Facility

The San José-Santa Clara Regional Wastewater Facility (RWF) treats the wastewater for Silicon Valley. The facility serves 1.5 million residents for the cities of San José, Santa Clara and Milpitas, as well as other sanitation districts throughout the Bay Area. The facility uses drying beds to dewater digested sludge. The clay-lined storage lagoons hold the digested sludge in the drying beds, where it is dried and eventually the dried "biosolids" are trucked to the landfill.

The presence of polychlorinated biphenyls (PCBs) is attributed to the use of construction caulk that contains PCBs. This was a common construction practice during the primary years of facility construction from 1954 to 1979. The potential migration pathways that the PCBs could use are leaching into the adjacent concrete substrate, leaching into surface and subsurface soil that is in contact with the caulk, dissolving or entraining as a particulate into groundwater by leaching through a soil column, or from exposed caulked joints eroding over time and migrating with stormwater to adjacent surface soils (Brown and Caldwell 2019). The Facility was determined to be a Cleanup Program Site with PCBs as a potential contaminant of concern in early 2022 (SWRCB 2022).

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 (OSHA), and the U.S. Department of Transportation. Federal laws, regulations, and responsible agencies related to hazardous materials and hazards management are summarized in **Table 3.9-2**, *Relevant Federal Laws and Regulations Related to Hazards and Hazardous Materials*.

3.9.2.2 State

The primary state agencies responsible for hazardous materials management in the region include the DTSC and the San Francisco Bay RWQCB within the California Environmental Protection Agency, 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 3.9-3**, *Relevant State Laws and Regulations Related to Hazards and Hazardous Materials*.

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 CCR Title 22, Social Security, Division 4.5, *Environmental Health Standards for the Management of Hazardous Waste*.

TABLE 3.9-2
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 EPA 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, 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	Comprehensive Environmental Response Compensation and Liability Act (CERCLA)	EPA has authority for enforcement actions and oversight of federal superfund sites pursuant to CERCLA. The South Bay Asbestos Area is a superfund site that would be crossed by the Project.
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 (CFR Title 49).
	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 (CFR Title 29).
Structural and Building Components (Hazardous Building Materials [asbestos-containing materials, lead-based paint, polychlorinated biphenyls—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.
	EPA	The EPA 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. CFR Title 14, 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 exceeds 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 3.9-2
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 CFR Title 43, 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; CERCLA = Comprehensive Environmental Response Compensation and Liability Act; CFR = Code of Federal Regulations; DOT = U.S. Department of Transportation; EPA = U.S. Environmental Protection Agency; FAA = Federal Aviation Administration; OSHA = U.S. Occupational Safety and Health Administration; PCB = Polychlorinated Biphenyls; RCRA = Resource Conservation and Recovery Act of 1976; USPS = U.S. Postal Service

SOURCE: LSPGC 2025.

TABLE 3.9-3
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 Kern County Public Health Services Department, Environmental Health Services Division and the San Bernardino County Fire Department, Hazardous Materials Division are the designated CUPAs.
	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) require that businesses that store hazardous materials on-site prepare a Hazardous Materials Business Plan (HMBP) 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, 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.

TABLE 3.9-3
RELEVANT STATE LAWS AND REGULATIONS RELATED TO HAZARDS AND HAZARDOUS MATERIALS

Classification	Law or Responsible State Agency	Description
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 (Title 8 CCR)	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 of 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 Section 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 would 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; Cal/OSHA = California Occupational Safety and Health Administration; CCR = California Code of Regulations; CUPA = Certified Unified Program Agency; DTSC = Department of Toxic Substances Control; HMBP = Hazardous Materials Business Plan; NPDES = National Pollutant Discharge Elimination System; RWQCB = regional water quality control board; United Program = Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

SOURCE: Data compiled by Environmental Science Associates in 2025.

California Occupational Safety and Health Administration

Chapter 4, Subchapter 5, Electrical Safety Orders, Sections 2700–2989

Group 2 of Subchapter 5, Electrical Safety Orders, outlines the safety orders for employees working with high voltage. This includes work with transformers, vertical suspension of cables, outdoor wiring, capacitors, line clearing tree trimming operations, etc. These safety orders are in place to lower the risk of injury or death for individuals working with high voltage.

California Public Utilities Commission General Orders and Related Codes

General Order 95, Overhead Electric Line Construction

General Order 95 outlines rules and other requirements for the design, construction, and maintenance of overhead 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 lines and to the public in general.

General Order 166, Standards for Operation, Reliability, and Safety During Emergencies and Disasters

The standards in CPUC General Order 166 aim 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 power line 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 following areas:

- 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–CAL FIRE 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

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. As such, the following local policies and ordinances pertaining to hazards and hazardous materials that would otherwise be relevant to the Project and alternatives are described below for informational purposes only.

City of Fremont

City of Fremont Emergency Operations Plan

The City of Fremont Emergency Operations Plan provides information for personnel assigned to emergency management roles and responsibilities. The Emergency Operations Plan can be expanded or contracted to meet the needs of incidents and emergencies such that Fremont may be able to coordinate, plan, respond, and recover. The Fremont Emergency Operations Plan complies with the National Incident Management System, California's Standardized Emergency Management System, and the Federal Emergency Management Agency's Comprehensive Planning Guide. The City Manager, who is assigned as the Director of Emergency Services, holds the authority for emergency management (City of Fremont 2020).

City of Fremont General Plan

The City of Fremont General Plan's *Safety Element* (City of Fremont 2011) includes the following policies related to hazards and hazardous materials that are relevant to the Project:

> ***Policy 10-6.1: Hazardous Material Regulation***. Maintain sufficient regulation of land use and construction to minimize potential health and safety risks associated with future, current, or past use of hazardous materials in Fremont.
>
> ***Policy 10-6.3: Remediation***. Encourage site investigation and cleanup on properties where contamination is likely.
>
> ***Policy 10-6.5: Hazardous Material Oversight***. Maintain sufficient oversight regarding the storage, transport, and handling of hazardous materials within the City.
>
> ***Policy 10-6.6: Hazardous Material Disclosure***. Proper disclosure and management by employers that use hazardous materials to disclose risks to employees and nearby residents.
>
> ***Policy 10-6.7: Emergency Action Plan***. Maintain City Emergency Action Plans and sufficient response capability to respond to a hazardous material emergency.
>
> ***Policy 10-7.2: Emergency Operations Plan Training***. Maintain a current Emergency Management Operations Plan and adequately train personnel to respond to any catastrophic emergency or disaster.

City of Milpitas

City of Milpitas 2040 General Plan

The City of Milpitas General Plan's *Safety Element* (City of Milpitas 2021) includes the following goals and policies related to hazards and hazardous materials that are relevant to the Project:

Goal SA-3: Enhance safety throughout the community by ensuring emergency preparedness.

***Policy SA 3-5*:** Continue to maintain the City's Emergency Operations Center and conduct regular staff training exercises to ensure that all City staff members, in addition to emergency responders, are adequately trained to fulfill their duties in the event of an emergency.

Goal SA-5: Protect citizens from hazardous materials.

***Policy SA 5-1*:** Require hazardous waste generated within Milpitas to be disposed of in a safe manner, consistent with all applicable local, state, and federal laws.

***Policy SA 5-2*:** Hazardous materials shall be stored in a safe manner, consistent with all applicable local, state, and federal laws.

***Policy SA 5-3*:** Ensure that businesses in Milpitas that handle hazardous materials prepare and file a Hazardous Materials Business Plan (HMBP) and Hazardous Materials Inventories. The HMBP and Inventory shall consist of general business information, basic information on the location, type, quantity, and health risks of hazardous materials, and emergency response and training plans.

***Policy CIR 1-13*:** Maintain up-to-date emergency preparedness and evacuation plans and procedures in coordination with appropriate state, regional, county, and local agencies and departments.

City of Santa Clara

The City of Santa Clara General Plan's *Safety Goals and Policies* section (City of Santa Clara 2014) includes the following policies related to hazards and hazardous materials that are relevant to the Project:

***Policy 5.3.5-P19*:** Restrict the use and storage of hazardous materials for industrial uses within 500 feet of existing residential uses.

***Policy 5.10.1-P10*:** Promote the reduction, recycling, and safe disposal of household hazardous wastes through public education and awareness and through an increase in hazardous waste collection events.

***Policy 5.10.5-P24*:** Protect City residents from the risks inherent in the transport, distribution, use, and storage of hazardous materials.

***Policy 5.10.5-P25*:** Use Best Management Practices to control the transport of hazardous substances and to identify appropriate haul routes to minimize community exposure to potential hazards.

***Policy 5.10.5-P1*:** Use the City's Local Hazard Mitigation Plan as the guide for emergency preparedness in Santa Clara.

City of San José

Certified Unified Program Agency

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 CCR Title 22, 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 CCR Title 23, 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 CCR Title 16, Sections 2620–2734).

(5) California Accidental Release Prevention program (Health and Safety Code Division 20, Chapter 6.95, Article 2, and CCR Title 19, 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, the San José Fire Department also administers a local Hazardous Materials Storage Ordinance (San José Municipal Code Chapter 17.68), which is discussed below.

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 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, Santa Clara Valley Water District, 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 a hazardous materials, including oil and radioactive materials (City of San José 2024b).

Envision San José 2040 General Plan Policies

The City of San José's General Plan (City of San José 2024c) includes the following goal, 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 shall not be approved 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

This code outlines the requirements for storing hazardous materials, 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 LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.9.3.1 LSPGC Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measures (APMs) within its portion of the Project pertaining to hazards and hazardous materials. The analysis assumes that the following APMs would be implemented by LSPGC as part of their portion of work for 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 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: Compliance with the Covenant to Restrict Use of Property** (CISCO Systems Site 6/Syntax Court Disposal Site). Construction activities within the Cisco Systems Site 6/Syntax Court Disposal Site boundaries (as outlined in Figure 3.9-1, Contaminated Sites Map) shall comply with the Covenant to Restrict Use of Property and Environmental Restriction, signed May 23, 2003. Specific activities could include:
  - Providing written notice to the Department of Toxic Substances Control (DTSC) at least 14 days prior to ground disturbing construction activities with the location of excavation, proposed depth, and soil management procedures.
  - Conducting construction activities in accordance with the SMP and the Health and Safety Plan (2001 and 2015 update).
  - Handling excavated soils in accordance with all applicable local, state, and federal regulations.
- **APM HAZ-4: Compliance with the Covenant and Agreement for Environmental Restriction** (South Bay Asbestos Area). Construction activities within the South Bay Asbestos Area site boundaries shall comply with the Covenant and Agreement for Environmental Restriction, signed October 21, 2004, by the property owner and the DTSC. Specific activities would include, but not necessarily be limited to, the following:
  - Coordinating with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Lead Agency and gaining written approval for ground disturbing activities that could affect the soil cap.
  - Preparing a SMP for any soils contaminated with asbestos or asbestos containing materials brought to the surface by grading, excavation, trenching, or backfilling.
- **APM TRA-1: Traffic Control Plan**. LSPGC shall prepare a TCP [traffic control plan] 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. A copy of the TCP shall be provided to CPUC for recordkeeping.

3.9.3.2 PG&E Best Management Practices and Field Protocols

PG&E would be responsible for the implementation of BMPs related to hazards and hazardous materials. This analysis assumes that the following BMPs would be implemented by PG&E during construction of PG&E's portion of work for the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation).

- **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.

- **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.

3.9.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to hazards and hazardous materials within SVP's portion of the Project.

3.9.4 Significance Criteria

According to Appendix G of the CEQA *Guidelines*, except as provided in Public Resources Code Section 21099, 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 evaluates, which should be considered in addition to the criteria identified in Appendix G of the CEQA Guidelines (CPUC 2019). With regard to hazards and hazardous materials, the Project would also result in significant hazards and hazardous materials impacts if it would do 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 and operation and maintenance of the Project. It is based on site-specific investigation results, literature and database research, and the general plans of the cities of Fremont, Milpitas, San José, and Santa Clara. Additionally, it considers proposed construction details and potential uses and operations at the Project sites and alignment, 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.

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) 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 with Mitigation*)

Construction

During the Project's construction phase, various construction equipment and materials, including fuel and oil, hydraulic fluid and lubricants, and cleaning solvents and chemicals, would be used. These substances are commonly used in construction for powering and lubricating internal combustion engines, other construction equipment, and for cleaning purposes. It is unlikely that herbicides or pesticides would be used during construction.

The Project's routine uses of hazardous materials could result in exposure due to 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. As discussed in Section 3.10, *Hydrology and Water Quality*, contractors would be required to prepare a stormwater pollution prevention plan (SWPPP) for construction activities in compliance with the State Construction General Permit. The SWPPP 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. Although the SWPPP would designate specific BMPs based upon site conditions, BMPs that would be used 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 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 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 (see Table 3.9-3). 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 for the chemicals used at the sites. LSPGC or its contractor(s) would implement proper hazardous waste management activities, which would include the preparation and implementation of a Project-specific hazardous materials business plan as required by the Business Plan Act. Additionally, LSPGC would implement **APM HAZ-1: Site-Specific Spill Prevention, Control, and Countermeasure Plan** and **APM HAZ-2: Hazardous Materials Management Plan** which would prevent or reduce discharge of hazardous materials into stormwater and drainage systems. Similarly, PG&E would implement **PG&E BMP HAZ-3: Hazardous Waste Management** and **PG&E BMP HAZ-7: Spill Prevention, Control, and Countermeasure (SPCC) Plan** which would prevent or reduce discharge of hazardous materials into stormwater and drainage systems. PG&E or its contractor(s) would implement **PG&E BMP HAZ-2**: **Hazardous Materials Business Plan (HMBP)**, which would include developing a plan outlining safety information regarding the transport, use, and disposal of hazardous waste.

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 would include the San José Fire Department 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, Fremont Fire Department, Milpitas Fire Department's Hazardous Materials Environmental Services Unit, and City of Santa Clara Fire Department.

Construction of the overhead portion of the transmission line would cross the San José-Santa Clara RWF, which could result in the accidental release of hazardous materials because of the potential presence of polychlorinated biphenyls (PCBs) that could be released during excavation. Further, the Project would overlap with identified sites that may contain hazardous materials, including the PG&E Newark Substation, Cisco Systems 6/Syntax Court Disposal Site, and South Bay Asbestos Superfund Site (see Figure 3.9-1). In the areas identified as having the potential for hazardous materials present, LSPGC would implement **Mitigation Measure 3.9-1a: Pre-Construction Hazardous Materials Assessment** and **Mitigation Measure 3.9-1b: Health and Safety Plan**, which requires LSPGC to assess the presence of hazardous materials such as PCBs, then create a specific Health and Safety Plan that would address site-specific worker health and safety issues during construction. **Mitigation Measure 3.9-1c: Soil and Groundwater Management Plan** would require the creation of a Soil and Groundwater Management Plan,

which would specify the protocols for handling and disposal of contaminated soil and groundwater, prior to construction.

For PG&E's scope of work for the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation), PG&E would implement PG&E BMP HAZ-2, PG&E BMP HAZ-3, and PG&E BMP HAZ-7. With the implementation of these LSPGC APMs, PG&E BMPs, and mitigation measures, impacts related to these criteria would be mitigated to a **less-than-significant** level.

Mitigation: Implement Mitigation Measure 3.9-1a, Mitigation Measure 3.9-1b, and Mitigation Measure 3.9-1c.

Mitigation Measure 3.9-1a: Pre-Construction Hazardous Materials Assessment

Prior to the preparation of the Health and Safety Plan and Soils and Groundwater Management Plan for the Project, LSPGC or its contractor(s) shall perform a limited soil and groundwater investigation at proposed construction work areas that overlap with the San José-Santa Clara RWF, Cisco Systems 6/Syntax Court Disposal Site, and South Bay Asbestos Superfund Site to characterize soil and groundwater quality prior to construction. Samples shall be collected from each of the proposed work areas that will be disturbed during project construction, and these samples shall be collected to the depth of the planned excavation. Subsurface soil samples shall be analyzed for total petroleum hydrocarbons (TPH) (e.g., gasoline, diesel, and waste oil), Title 22 metals, volatile organic compounds (VOCs), and polychlorinated biphenyls (PCBs) to evaluate the potential presence of contamination. Groundwater samples shall be collected if subsurface excavations are anticipated to require dewatering. Additional analyses for VOCs and semi-volatile organic compounds (SVOCs) shall be conducted for groundwater samples collected at construction locations within 1,000 feet of adjacent landfills. In the event the assessment identifies hazardous materials issues, the results of the hazardous materials assessment shall be incorporated into the Site Health and Safety Plan prepared in accordance with Mitigation Measure 3.9-1b and the Soil and Groundwater Management Plan prepared in accordance with Mitigation Measure 3.9-1c to determine whether specific soil and groundwater management and disposal procedures for contaminated materials are required, whether excavated soils are suitable for reuse, and whether construction worker health and safety procedures for working with contaminated materials are required. In the event the assessment does not identify hazardous materials issues, LSPGC shall implement APM WQ-1.

LSPGC shall compile the results of these assessments and analyses into a Pre-Construction Hazardous Materials Assessment, and shall submit this Pre-Construction Hazardous Materials Assessment to the CPUC no less than 60 days before the start of construction.

Mitigation Measure 3.9-1b: Health and Safety Plan

LSPGC or its contractor(s) shall retain a qualified environmental professional to prepare a site-specific Health and Safety Plan (HASP) in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal/OSHA regulations (8 California Code of Regulations Title 8, Section 5192). Because anticipated contaminants vary depending upon the location of proposed improvements in the Project area and may vary over time, the HASP shall address site-specific worker health and safety issues during construction. The HASP shall include the following information:

- Results of sampling conducted in accordance with Mitigation Measure 3.9-1a.
- All required measures to protect construction workers and the general public by including engineering controls, monitoring, and security measures to prevent unauthorized entry to the construction areas and to reduce hazards outside of the construction areas. If prescribed contaminant exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with state and federal regulations.
- Required worker health and safety provisions for all workers potentially exposed to contaminated materials, in accordance with state and federal worker safety regulations, and designated qualified individual personnel responsible for implementation of the HASP.
- The contractor shall have a site health and safety supervisor fully trained pursuant to hazardous materials regulations be present during excavation, trenching, or cut and fill operations to monitor for evidence of potential soil contamination, including soil staining, noxious odors, debris or buried storage containers. The site health and safety supervisor must be capable of evaluating whether hazardous materials encountered constitute an incidental release of a hazardous substance or an emergency spill. The site health and safety supervisor shall implement procedures to be followed in the event of an unanticipated hazardous materials release that may impact health and safety. These procedures shall be in accordance with hazardous waste operations and regulations and shall specifically include, but need not be limited to: 1) immediately stopping work in the vicinity of the unknown hazardous materials release; 2) notifying SCCDEH, RWQCB, or DTSC; and 3) retaining a qualified environmental firm to perform sampling, remediation, and/or disposal.
- Documentation of HASP measures that shall be implemented during the Project's construction.
- Provision that submittal of the HASP to the LSPGC, or any review of the contractor's HASP by LSPGC, shall not be construed as approval of the adequacy of the contractor as a health and safety professional, the contractor's HASP, or any safety measure taken in or near the construction site. The contractor shall be solely and fully responsible for compliance with all laws, rules, and regulations applicable to health and safety during the performance of the construction work.

LSPGC shall submit the Health and Safety Plan to the CPUC no later than 30 days before the start of construction, or upon receipt of the results of the Pre-Construction Hazardous Materials Assessment (whichever comes first).

Mitigation Measure 3.9-1c: Soil and Groundwater Management Plan

LSPGC or its contractor(s) shall direct the construction contractor to prepare and implement a Soil and Groundwater Management Plan, subject to review by the CPUC, that specifies the method for handling and disposal of contaminated soil and groundwater prior to construction. The plan shall include all necessary procedures to ensure that excavated materials and fluids generated during construction are stored, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. The plan shall include the following information.

- Step-by-step procedures for evaluation, handling, stockpiling, storage, testing, and disposal of excavated material, including criteria for reuse and offsite disposal. All

excavated materials shall be inspected prior to initial stockpiling, and spoils that are visibly stained and/or have a noticeable odor shall be stockpiled separately to minimize the amount of material that may require special handling. In addition, excavated materials shall be inspected for buried building materials, debris, and evidence of underground storage tanks; if identified, these materials shall be stockpiled separately and characterized in accordance with landfill disposal requirements. If some of the spoils do not meet the reuse criteria and/or debris is identified, these materials shall be disposed of at a permitted landfill facility.

- Procedures to be implemented if unknown subsurface conditions or contamination are encountered, such as previously unreported tanks, wells, or contaminated soils.
- Procedures for containment, handling, and disposal of groundwater generated from construction dewatering, including the method(s) used to analyze groundwater for hazardous materials likely to be encountered at specific locations (based on the results of Mitigation Measure 3.9-1a), and the appropriate treatment and/or disposal methods.

LSPGC shall submit the Soil and Groundwater Management Plan to the CPUC 30 days before the start of construction, or upon the receipt of the results of the Pre-Construction Hazardous Materials Assessment (whichever comes first).

Operations 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 California Independent System Operator's control center in Folsom, California. Equipment malfunctions would be investigated by operation and maintenance (O&M) 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 based in California for LSPGC's other projects who would assist with O&M 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 Program*, the Project would not be occupied on a daily basis. LSPGC would hire a California-based technician to perform O&M for the Project, including transmission line inspection and repairs, and overseeing outside contractors for Project maintenance. 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 of overhead transmission lines from the ground.

O&M would involve the use of fuels, lubricants, and cleaning solvents. 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. The plan would include safety requirement information regarding the transport, use, and disposal of hazardous waste.

Potential excavation may need to occur as a result of O&M, which could result in the accidental release of hazardous materials in the RWF because of the potential presence of PCBs. The implementation of Mitigation Measure 3.9-1a and Mitigation Measure 3.9-1b would test for the presence of hazardous materials such as PCBs, then create a Project-specific Health and Safety Plan that would address site-specific worker health and safety issues during O&M excavation. Finally, Mitigation Measure 3.9-1c would require the creation of a Soil and Groundwater Management Plan, which would specify the protocols for handling and disposal of contaminated soil and groundwater prior O&M excavation.

Compliance with the laws and regulations governing the transportation, use, handling, and disposal of hazardous materials, in combination with the implementation of LSPGC APMs, PG&E BMPs, and mitigation measures would limit the potential for the Project to create hazardous conditions from the routine use or accidental release of hazardous materials. Therefore, the impacts would be **less than significant** with mitigation.

> **Mitigation**: Implement Mitigation Measure 3.9-1a, Mitigation Measure 3.9-1b, and Mitigation Measure 3.9-1c.
>
> **Significance after Mitigation:** Implementation of LSPGC APMs, PG&E BMPs, Mitigation Measure 3.9-1a, Mitigation Measure 3.9-1b, and Mitigation Measure 3.9-1c would ensure that Project O&M impacts related to the routine or accidental release of hazardous material during would be less than significant.

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*)

George Mayne Elementary School in Alviso would be located 0.15 mile from the transmission line and across the street from Staging Areas 10, 11, and 12. The use and transportation of hazardous materials could result in exposure or inadvertent releases, which could adversely affect children and staff at this school. 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, such spills would be limited in volume and would not migrate off-site. After implementation of these LSPGC APMs, and adherence to associated

regulations, the hazardous materials impact at George Mayne Elementary School 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. 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 transmission line's vicinity and Staging Areas 10, 11, and 12 would be less than significant. Therefore, impacts from DPM emissions near George Mayne Elementary School 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, but would not create a significant hazard to the public or the environment. (*Less than Significant with Mitigation*)

As discussed in Section 3.9.1.1, *Hazardous Materials, Hazardous Materials Sites*, the Project would be located on or within 0.125 mile of sites listed under Government Code Section 6592.5, referred to as the Cortese List.

Construction

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.

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, hazardous materials release containment and control procedures, among other hazardous materials standards. **APM HAZ-3**: **Compliance with the Covenant to Restrict Use of Property** would require compliance with the Covenant to Restricted Use of Property and Environmental Restriction, which requires construction activities to follow the SMP prepared in 2001 and the Health and Safety Plan prepared in 2001 and updated in 2015. **APM HAZ-4: Compliance with the Covenant and Agreement for Environmental Restriction** would also require compliance with the Covenant and Agreement for Environmental Restriction, which would require the preparation of an SMP for soils contaminated with asbestos. The SMP

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 would be implemented for Project construction elements under PG&E's responsibility, and 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.

For example, 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 and would assume regulatory oversight for characterizing the suspect materials per their regulatory authorities (see Section 3.9.2.2, *State,* under *San Francisco Bay Regional Water Quality Control Board and California Department of Toxic Substances Control Cleanup Authorities*). Upon confirmation of contamination, a remediation plan pursuant to the California Health and Safety Code Section 25180 and approved by the appropriate oversight agency or authority must be implemented at the site.

LSPGC would implement Mitigation Measure 3.9-1a and Mitigation Measure 3.9-1b, which requires LSPGC to assess the presence of hazardous materials such as PCBs, then create a specific Health and Safety Plan that would address site-specific worker health and safety issues during construction. Mitigation Measure 3.9-1c would require the creation of a Soil and Groundwater Management Plan, which would specify the protocols for handling and disposal of contaminated soil and groundwater, prior to construction.

Adherence to these existing state and federal regulations, and the implementation of applicable LSPGC APMs and PG&E BPMs would help ensure that potential exposure of people and the environment to existing contaminated soils would be reduced. Consequently, construction activities associated with these Project components would likely not disturb contaminated soil that would create a significant hazard to the public or the environment, therefore, for these reasons, this impact would be **less than significant** with mitigation.

Operations and Maintenance

As discussed in Chapter 2, 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 based in California for LSPGC's other projects who would assist with the Project's O&M, as needed. 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 O&M would be subject to applicable LSPGC APMs, PG&E BMPs, and mitigation measures, as well as existing state and federal regulations. For example, Project O&M that would occur in the RWF would be subject to Mitigation Measures 3.9-1a, Mitigation Measure 3.9-1b, and Mitigation Measure 3.9-1c. Similarly, Project O&M at the PG&E Newark 230 kV Substation would be subject to PG&E BMPs. Therefore, adherence to these mitigation measures and PG&E BMPs would reduce Project O&M impacts related to this criterion to **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.9-1a, Mitigation Measure 3.9-1b, and Mitigation Measure 3.9-1c.

Significance after Mitigation: Implementation of LSPGC APMs, PG&E BMPs, and Mitigation Measure 3.9-1a, Mitigation Measure 3.9-1b, and Mitigation Measure 3.9-1c would ensure that impacts related to this criterion be less than significant.

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?

Criterion h) Create a significant hazard to air traffic from the installation of new power lines and structures?

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; or create a significant hazard to air traffic from the installation of new power lines and structures. (*No Impact*)

Project construction could create a hazard to air traffic if it would violate the safety restrictions and precautions of an Airport Influence Area (AIA). As discussed in Section 3.9.1.3, *Proximity to Airports*, the Project components are not within 2 miles of an airport. Approximately 1.25 miles of the transmission line would be located within the Airport Influence Area for San José Mineta International Airport, which has a height restriction for this area is 262 feet. The maximum height of any Project component would be 170 feet. The segment of the Project's transmission line within the AIA would be underground, therefore, the newly installed power lines would not pose a significant hazard to air traffic. Additionally, modifications to the SVP NRS 230 kV Substation, which is also within the San José Mineta International Airport AIA, would erect structures similar to existing structures, which would comply with the height restrictions.

Project O&M would involve LSPGC hiring one technician located in close proximity to the Project to perform routine inspections, monitoring, and repairs. LSPGC would also have two other technicians based in California for LSPGC's other transmission infrastructure who would assist in the O&M of the Project, as needed. Normal operations of the Project would be controlled remotely through LSPGC's control systems and manually in the field as needed. Annual visual inspections would occur at the substations and along the Project's transmission line alignment. These activities would be conducted within either substation properties, access roadways, or structure pads. The Project would not permanently place any persons within the AIA or within 2 miles of San José Mineta International Airport.

Criterion f) Whether the Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Project operations would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (*No Impact*)

Project O&M would involve LSPGC hiring one technician located in close proximity to the Project to perform routine inspections, monitoring, and repairs. LSPGC would also have two other technicians based in California for LSPGC's other projects who would assist in the Project's O&M, as needed. Normal operations of the substations, switching stations, and transmission lines would be controlled remotely through LSPGC's control systems and manually in the field as required. Annual visual inspections would occur at the substations, switching stations, and along the Project's transmission line alignment. These activities would be conducted within either substation properties, access roadways, or structure pads. Compared to existing conditions, O&M activities would have a minimal impact on traffic conditions in the area. Therefore, Project operations would not interfere with an adopted emergency response plan or emergency evacuation plan.

Impact 3.9-4: Project construction would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (*Less than Significant with Mitigation*)

As discussed in Section 3.17, *Transportation*, construction activities for the Project 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 alignment. As discussed in Chapter 2, LSPGC would obtain encroachment permits from the local jurisdictions and California Department of Transportation, as appropriate, for temporary lane closures. Closures of private driveways would be coordinated with the individual landowners. Furthermore, LSPGC would submit an application to the Federal Aviation Administration for review and approval of the construction and installation of overhead transmission line structures. This would also include communication with the Federal Aviation Administration regarding construction helicopter flight plans and locations of traffic control where external load operations would cross public roadways (see Table 3.9-2). Nonetheless, traffic may still be adversely affected, which could cause a significant impact associated with physical interference of an adopted emergency response plan.

Implementation of **Mitigation Measure 3.17-2a, Implement Coordinated Traffic Control Plan** and **APM TRA-1 Traffic Control Plan** would reduce this impact, which would reduce traffic-related impacts associated with the construction of the proposed facilities, so that emergency response capabilities would be maintained during Project construction. Signage, flaggers, or other traffic control measures included in the TCP would be used to maintain public safety during construction. Pursuant to APM TRA-1, construction activities would be coordinated with local law enforcement and fire protection agencies, as required. Also, emergency service providers would be notified, as required by the local encroachment permits, of the timing, location, and duration of construction activities. Access routes for emergency vehicles within and near the Project sites would be maintained. Therefore, the impact would be mitigated to a **less-than-significant** level.

> **Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan**
>
> LSPGC shall coordinate with Project proponents, contractors, and local agencies, as applicable, for other construction projects in the Project's vicinity that may temporally overlap with Project construction, including, but not limited to, 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 the Project's traffic control plan with other traffic control plans prepared for nearby projects. The other projects' traffic control plans shall be cited in the Project's traffic control plan, as applicable.
- 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:
  - Full and partial roadway closures.
  - Circulation and detour plans to include 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 at least 30 days before the start of construction.

Significance after Mitigation: Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would ensure that impacts related to interference with an adopted emergency response plan or emergency evacuation plan would be less than significant.

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 3.9-5: 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,* transmission line would not traverse or be near a State Responsibility Area or on lands classified as a moderate or very high Fire Hazard Severity Zone.

Although the Project is not located within a State Responsibility Area or a moderate or very high Fire Hazard Severity Zone, there are still other factors that may increase fire risk to people or structures, such as slope and wind patterns. The Project's transmission line alignment 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. Furthermore, the Project would not be in or near a CPUC-designated high-fire threat zone, and upon the completion of construction, transmission lines and substation improvements would be consistent with LSPGC's standard safety procedures.

The location of 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. Therefore, potential impacts from wildfire would be **less than significant**.

Mitigation: None required.

Criterion i) Create a significant hazard to the public or environment through the transport of heavy materials using helicopters?

Impact 3.9-6: The Project would not create a significant hazard to the public or environment through the transport of heavy materials using helicopters. (*Less than Significant*)

The Project may use a helicopter in the construction of the overhead transmission lines. Section 2.8.5, *Overhead Transmission Line Construction*, describes how the installation of transmission lines would occur during construction. It is not expected that the helicopter would be used to transport heavy materials over or within areas of development during construction or operations, as noted in Section 2.8.1.3, *Helicopter Access*. Although a helicopter would be used for stringing transmission lines, the Project would not create a significant hazard to the public or environment through the transportation of heavy materials. Therefore, this impact would be **less than significant**.

Criterion j) Expose people to a significant risk of injury or death involving unexploded ordnances?

The Project would not expose people to a significant risk of injury or death involving unexploded ordnances. (*No Impact*)

No military bases are near the transmission line alignment, and the entire Project would be located within developed cities. Therefore, there are no known unexploded ordnance sites at or near the Project.

Criterion k) 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.

The Project's design would follow the applicable state and federal regulations and standards central to reducing 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 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. Implementing 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 and operation 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 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 scope of analysis for cumulative hazardous materials, unexploded ordnance hazard, and shock hazard 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 release, and existing and future soil and groundwater conditions. For example, hazardous materials incidents tend to be limited to a smaller and more 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 geographic scope of analysis for cumulative hazards impacts, such as interference with emergency access, wildfire, air traffic hazards, and transport of heavy materials using helicopters encompasses and is limited to within 2 miles of the Project site because these types of impacts tend to affect a broader geographic area.

The timeframe during which the Project could contribute to cumulative hazards and hazardous materials effects includes the construction and operations phases. For the Project, the operations phase is permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts relative to hazards and 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, as well as 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, the Project's routine use and transportation of hazardous materials 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 on 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 one-quarter mile of an existing or proposed school. (*Less than Significant*)

As discussed in Impact 3.9-2, George Mayne Elementary School in Alviso would be located 0.15 mile from the transmission line and across the street from Staging Areas 10, 11, and 12. The use and transportation of hazardous materials could result in exposure or inadvertent releases, which could adversely affect children and staff at this school. 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 George Mayne Elementary School. 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 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 not 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)

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 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, nor will it create or contribute to a cumulatively considerable hazard to air traffic from the installation of new power lines and structures. (*No Impact*)

As discussed in Section 3.9.1.3, *Proximity to Airports*, the Project components are not within 2 miles of an airport. Approximately 1.25 miles of the transmission line would be located within the Airport Influence Area (AIA) for San José Mineta International Airport, which has a height restriction for this area is 262 feet. The maximum height of any Project component would be 170 feet. The segment of the Project's transmission line within the AIA would be underground, therefore, the newly installed power lines would not pose a significant hazard to air traffic. Additionally, modifications to the SVP NRS 230 kV Substation, which is also within the San José Mineta International Airport AIA, would erect structures similar to and not protruding above existing structures, and would comply with the height restrictions. As the Project would have no impact on a public airport or on residents or workers due to its location outside of an airport land use plan, it will not, when combined with other projects in the area, have a cumulatively significant impact.

3.9.6.5 Criterion f)

Impact C.3.9-4: 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 with Mitigation*)

As discussed above, Project operations 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 alignment. Implementation of Mitigation Measure 3.17-2a and APM TRA-1 would reduce this impact, which would reduce traffic-related impacts associated with the construction of the proposed facilities, so that emergency response capabilities would be maintained during Project construction.

In the event that construction of other projects in the vicinity of the Project overlaps with the Project's construction activities involving road restrictions or closures for delivery of oversized loads, impacts on roadways may be cumulatively considerable. As it regards cumulative City of San José projects occurring at the RWF under its Capital Improvement Program (RWF CIP), those projects would be subject to the Plant Master Plan EIR's Mitigation Measure C-TR: Implement Coordinated Transportation Management Plan, which requires the project proponent's contractors to coordinate with contractors from other RWF CIP projects (City of San José 2013). With implementation of Mitigation Measure 3.17-2a and 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 mitigated to **less than significant**.

Mitigation: Implement Mitigation Measure 3.17-2a.

Significance after Mitigation: Implementation of Mitigation Measure 3.17-2a and APM TRA-1 would ensure that cumulative impacts related to this criterion would be less than significant.

3.9.6.6 Criterion g)

Impact C.3.9-5: 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)

Impact C.3.9-6: The Project, in combination with the cumulative projects, would not create a significant hazard to the public or environment through the transport of heavy materials using helicopters. (*Less than Significant*)

The Project would use helicopters in the construction of the overhead transmission line (i.e., stringing), however, helicopters are not expected to be used to transport heavy materials and create a significant hazard to the public or environment through the transport of heavy materials using helicopters. Cumulative projects may also use helicopters for construction and/or operations and maintenance, which could involve the transport of heavy materials and, thus, a potentially significant hazard to the public or environment. A cumulative project that may use helicopters is SVP's Northern Receiving Station-Kifer Receiving Station 115 kV Transmission Line project (115 kV project), which proposes to construct an approximately 2.24 mile overhead transmission line. Since the 115 kV project would install overhead transmission line, stringing would be involved and there is a possibility that helicopters may be used. Additionally, the 115 kV project would also have a construction period that would last 14 months and is expected to be completed by early 2028, which would have an overlapping construction timeline with the Project.

However, considering the intended use of helicopters for the Project, the Project's potential incremental impacts would not be cumulatively considerable. And with consideration of the 115 kV project, the use of helicopters would likely be in the same capacity as the Project (i.e., stringing transmission lines), rather than for the transport of heavy materials and, therefore, would also not be cumulatively considerable. Further, the overlapping construction timelines would not affect the intended use of the helicopters.

Currently, the known level of detail for construction methods and activities for the cumulative projects are not yet known. However, many of the cumulative projects are residential, office, mixed-use, and, generally, land-use developments that would likely use trucks to deliver heavy materials (i.e., would not use helicopters for freight and/or materials delivery). Also, with the region's circulation network and dense urban infrastructure, it is unlikely that many of the cumulative projects would choose to deliver heavy material with helicopters with respect to cost, logistics, and safety standards. With these considerations, it is unlikely that the Project, in combination with the cumulative projects, would not create a significant hazard to the public or environment through the transport of heavy materials using helicopters. Therefore, this cumulative impact would be **less than significant**.

Mitigation: None required.

3.9.6.8 Criterion j)

The Project would not expose people to a significant risk of injury or death involving unexploded ordnances. Therefore, the Project would not contribute to cumulative effects related to this criterion and are not discussed further in a cumulative context. (*No Impact*)

3.9.6.9 Criterion k)

Impact C.3.9-7: The Project, in combination with the cumulative projects, would not expose workers or the public to excessive shock hazards. (*Less than Significant*)

As stated in Impact 3.9-7, when a person comes in contact with a conductive object, they may experience a perceptible current or small electric shock. While the Project and the cumulative projects are expected to follow applicable state and federal regulations and standards central to reducing shock hazards, such as the California Occupational Safety and Health Administration regulations on electrical safety, there is a small, yet existing possibility that a person may be exposed to shock hazards. The Project and the cumulative projects would still be required to strictly follow health and safety regulations that work to minimize exposure of shock hazards to workers or the public. While there is an incremental increase in the possibility of exposure to shock hazards, preventative and avoidance rules and regulations have been established and would be enforced to a level that would minimize such possibility.

Therefore, implementing these safety regulations and other applicable state and federal regulations would ensure a **less-than-significant** cumulative impact related to exposing workers or the public to excessive shock hazards.

Mitigation: None required.

3.9.7 References

Brown and Caldwell. 2019. *CIP Program*. Available: https://documents.geotracker.waterboards.ca.gov/regulators/deliverable_documents/7421064078/Part%201_of_5_PCBCleanup_CompletionReport_09302019.pdf. Accessed May 8, 2025.

CAL FIRE (California Department of Forestry and Fire Protection). 2024. *Fire Hazard Severity Zones.* Available: https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones. Accessed February 25, 2025.

City of Fremont. 2011. *City of Fremont General Plan.* Adopted December 2011. Available: https://www.fremont.gov/government/departments/community-development/planning-building-permit-services/plans-maps-guidelines/general-plan. Accessed November 12, 2024.

City of Fremont. 2020. *Emergency Operations Plan Basic Plan 2020*. Available: https://www.fremont.gov/home/showpublisheddocument/14176/638315763175270000. Accessed November 12, 2024.

City of Milpitas. 2021. *General Plan 2040*. Adopted March 9, 2021. Available: https://www.milpitas.gov/370/Milpitas-2040-General-Plan. Accessed November 12, 2024.

City of San José. 2013. *San José/Santa Clara Water Pollution Control Plant, The Plant Master Plan*. November 2013.

City of San José. 2024a. *Airport Land Use Compatibility Plan Santa Clara County, San José Mineta International Airport*. March 27, 2024. Available: https://stgenpln.blob.core.windows.net/document/ALUC_SJC_CLUP.pdf. Accessed December 31, 2024.

City of San José. 2024b. *Emergency Operations Plan – Base Plan*. April 2024. Available: https://www.sanjoseca.gov/your-government/departments-offices/office-of-the-city-manager/emergency-management/emergency-plans. Accessed November 12, 2024.

City of San José. 2024c. *Envision San José 2040 General Plan*. Adopted November 1, 2011; amended on October 24, 2024. Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan. Accessed November 12, 2024.

City of Santa Clara. 2014. *City of Santa Clara 2010–2035 General Plan.* Adopted on November 16, 2010; updated on December 9, 2014. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed November 12, 2024.

California Public Utilities Commission (CPUC). 2019. *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments*. Available: https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/c/6442463239-ceqa-pre-filing-guidelines-pea-checklist-nov-2019.pdf. Accessed February 18, 2025.

CPUC (California Public Utilities Commission). 2021. *CPUC Fire-Threat Map.* Available: https://files.cpuc.ca.gov/safety/fire-threat_map/2021/CPUC%20Fire%20Threat%20Map_v.3_08.19.2021.Letter%20Size.pdf. Accessed November 12, 2024.

CPUC (California Public Utilities Commission). 2023. General Order 131-D, *Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California*. Section XIV.B. Adopted June 8, 1994; last modified December 14, 2023, effective December 14, 2023, Decision 23-12-035. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed October 29, 2024.

DTSC (Department of Toxic Substances Control). 2024. Envirostor. Available: https://www.envirostor.dtsc.ca.gov/public/. Accessed November 12, 2024.

EPA (U.S. Environmental Protection Agency). 2024. South Bay Asbestos Area Alviso, CA Cleanup Activities. Available: https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.cleanup&id=0902250. Accessed December 11, 2024.

SWRCB (State Water Resources Control Board), 2022. GeoTracker database, San Jose-Santa Clara Regional Wastewater Facility (T10000018578). Available online at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000018578. Accessed May 6, 2025.

SWRCB. 2024. GeoTracker. Available: https://geotracker.waterboards.ca.gov/. Accessed November 12, 2024.

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3.10 Hydrology and Water Quality

This section evaluates potential impacts of the Project related to hydrology and water quality. 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 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 related to the EIR. **Appendix B**, *Scoping Report*, includes all comments received during the scoping period. Comments were received from the Santa Clara Valley Water District (Valley Water) which note that the Project would cross lands and water facilities owned and maintained by Valley Water. The California Department of Fish and Wildlife (CDFW) submitted comments during the scoping period regarding water quality, alteration of soils, and hydrology. These agencies are considered responsible agencies with respect to CEQA. Impacts related to wildlife and associated habitat are discussed in Section 3.4, *Biological Resources*.

3.10.1 Environmental Setting

3.10.1.1 Regional Setting

The study area is in the southern San Francisco Bay watershed and the northern Coyote Creek watershed. The San Francisco Bay watershed encompasses an area of approximately 1,333 square miles across San Francisco, Alameda, Contra Costa, Santa Clara, San Mateo counties. The watershed is bounded by the northern extent of the Santa Cruz Mountains extending to the coastal range to the west and the Diablo Range to the east. The Coyote Creek watershed drains an area of approximately 320 square miles within Santa Clara Valley and is bordered by San Francisco Bay, Bay Creek, and Alameda County to the north, the Santa Cruz Mountains to the west and southwest, and the Diablo Range to the east.

The topography in the study area is relatively flat, ranging from sea level near the San Francisco Bay to 40 feet above mean sea level in upland locations. The study area slopes gradually to sea level to the northwest toward the existing PG&E Newark 230 kV Substation and the San Francisco Bay. The Project area is located in a predominantly urban environment in the cities of Fremont, Milpitas, San José, and Santa Clara, within Alameda and Santa Clara counties.

Surface Waters

Surface water tributaries in the San Francisco Bay watershed primarily drain to San Francisco Bay. As depicted on **Figures 3.10-1A** through **3.10-1C**, the Project would cross nine mapped streams and water bodies, including the floodplain of Don Edwards San Francisco Bay National Wildlife Refuge, Laguna Creek, Aqua Caliente Creek, an unnamed estuarine intertidal channel, Agua Fria Creek, an unnamed intermittent water feature, Coyote Creek, an unnamed estuarine feature, and the Guadalupe River. **Table 3.10-1**, *Beneficial Uses and Impairment Status*, lists the water bodies that the Project would cross or that are proximate to proposed work areas. It

includes their beneficial uses designated in the San Francisco Bay Basin Water Quality Control Plan (Basin Plan) along with their associated impairment status and pollutants. The Guadalupe River, Coyote Creek, and San Francisco Bay are listed as impaired water bodies for a variety of pollutants, and Laguna Creek is proposed for listing.

TABLE 3.10-1
BENEFICIAL USES AND IMPAIRMENT STATUS

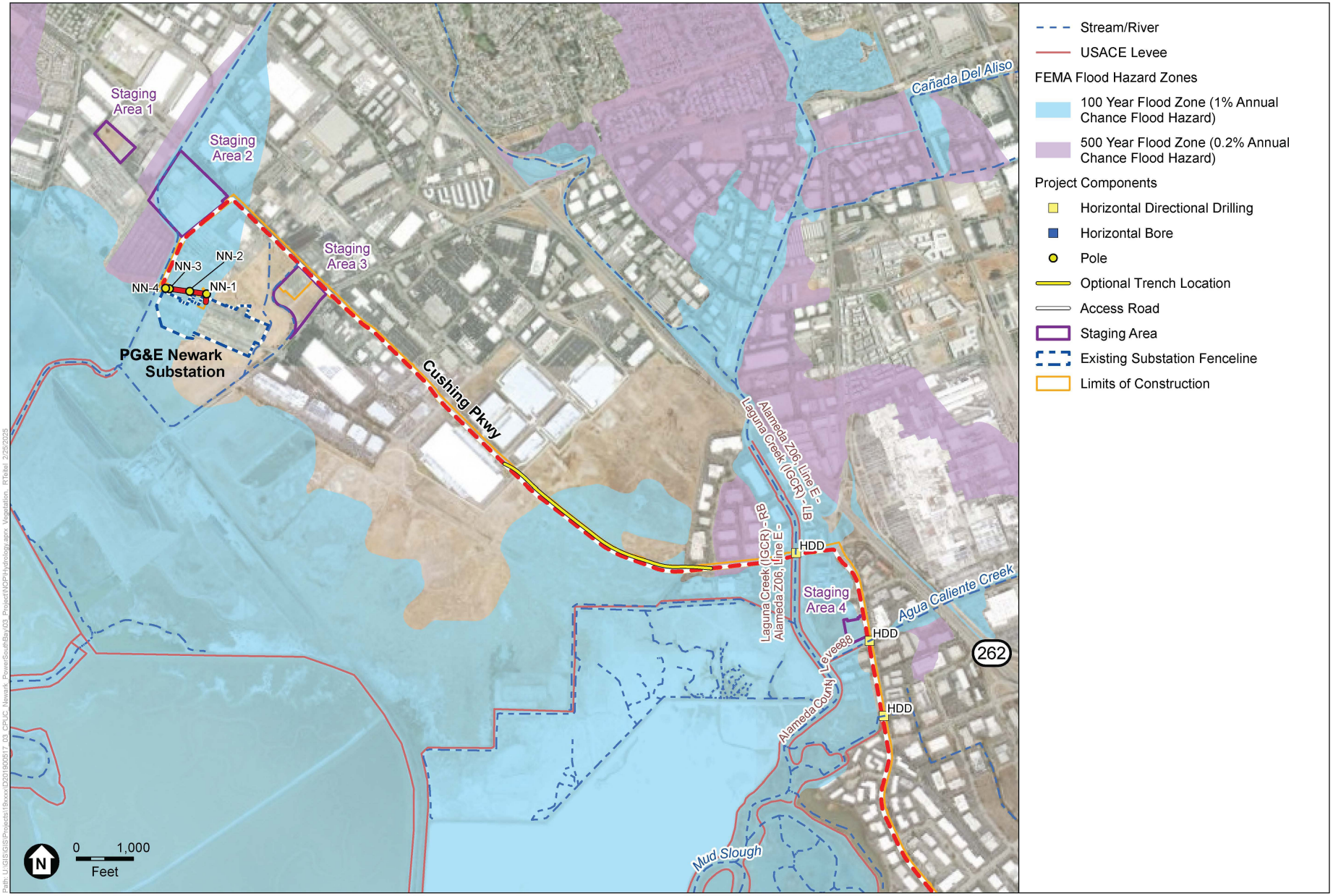
Water Body	Beneficial Use(s)	Impairment Status	Pollutants
Guadalupe River	Groundwater Recharge (GWR), Cold Freshwater Habitat (COLD), Migratory (MIGR), Fish Spawning (SPWN), Wildlife Habitat (WILD), Preservation of Rare and Endangered Species (RARE), Water Contact Recreation (REC-1), Noncontact Water 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 EPA approved TMDL has been developed in 2016 (Diazinon); TMDL required: expected completion date is 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 other, urban runoff; surface runoff) • Mercury (source unknown)
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 on 2024 California Integrated Report Section 303 (d); TMDL required.	Ammonia (source unknown)
Agua Fria Creek	Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2)	Not listed on 2024 California Integrated Report Section 303(d) list.	Not applicable
Agua Caliente Creek (tributary)	Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2)	Not listed on 2024 California Integrated Report Section 303(d) list.	Not applicable
Artesian Slough	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 4a: TMDLs required; approved by EPA.	Mercury, PCBs

TABLE 3.10-1
BENEFICIAL USES AND IMPAIRMENT STATUS

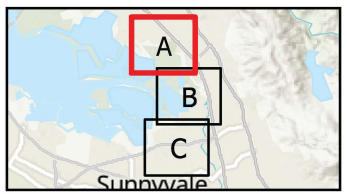
Water Body	Beneficial Use(s)	Impairment Status	Pollutants
Don Edwards San Francisco Bay National Wildlife Refuge Alviso Slough	Estuarine Habitat (EST), Steelhead migration (MIGR), Sport and Commercial Fishing (COMM), Preservation of Rare and Endangered Species (RARE), Water Contact Recreation (REC-1), Noncontact Water Recreation (REC-2), Fish Spawning (SPWN), Wildlife Habitat (WILD)	Not listed as impaired.	Not applicable
Upper Penitencia Creek (tributary to Coyote Creek)	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)	Not listed as impaired.	Not applicable.
San Tomas Aquino Creek	Cold freshwater habitat (COLD), Preservation of rare and endangered species (RARE), Warm-Freshwater Habitat (WARM), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2)	Listed/Category 5: at least one beneficial use not supported; TMDLs required (ammonia, toxicity); being addressed with action other than TMDL (trash).	Ammonia, trash, toxicity (sources unknown).
Santa Clara Valley (Santa Clara or Coyote Valley) Groundwater Sub-Basin	Municipal and Domestic Water Supply (MUN), Industrial Process Water Supply (PROC), Industrial Water Service Supply (IND), Agricultural Water Supply (AGR).	Not applicable	Not applicable
Santa Clara Valley (Niles Cone) 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
San Francisco Bay, Lower	Estuarine Habitat (EST), Sport and Commercial Fishing (COMM), Preservation of Rare and Endangered Species (RARE), Water Contact Recreation (REC-1), Noncontact Water Recreation (REC-2), Fish Spawning (SPWN), Wildlife Habitat (WILD)	Listed/Category 5: At least one beneficial use is not supported and a TMDL is needed	Chlordane, DDT, dieldrin, dioxin compounds, furan compounds, invasive species, mercury, PCBs, trash (sources unknown).

NOTES: DDT = dichlorodiphenyltrichloroethane; PCB = polychlorinated biphenyls; TMDL = total maximum daily load

SOURCES: San Francisco Bay RWQCB 2024; SWRCB 2024a; 2024b

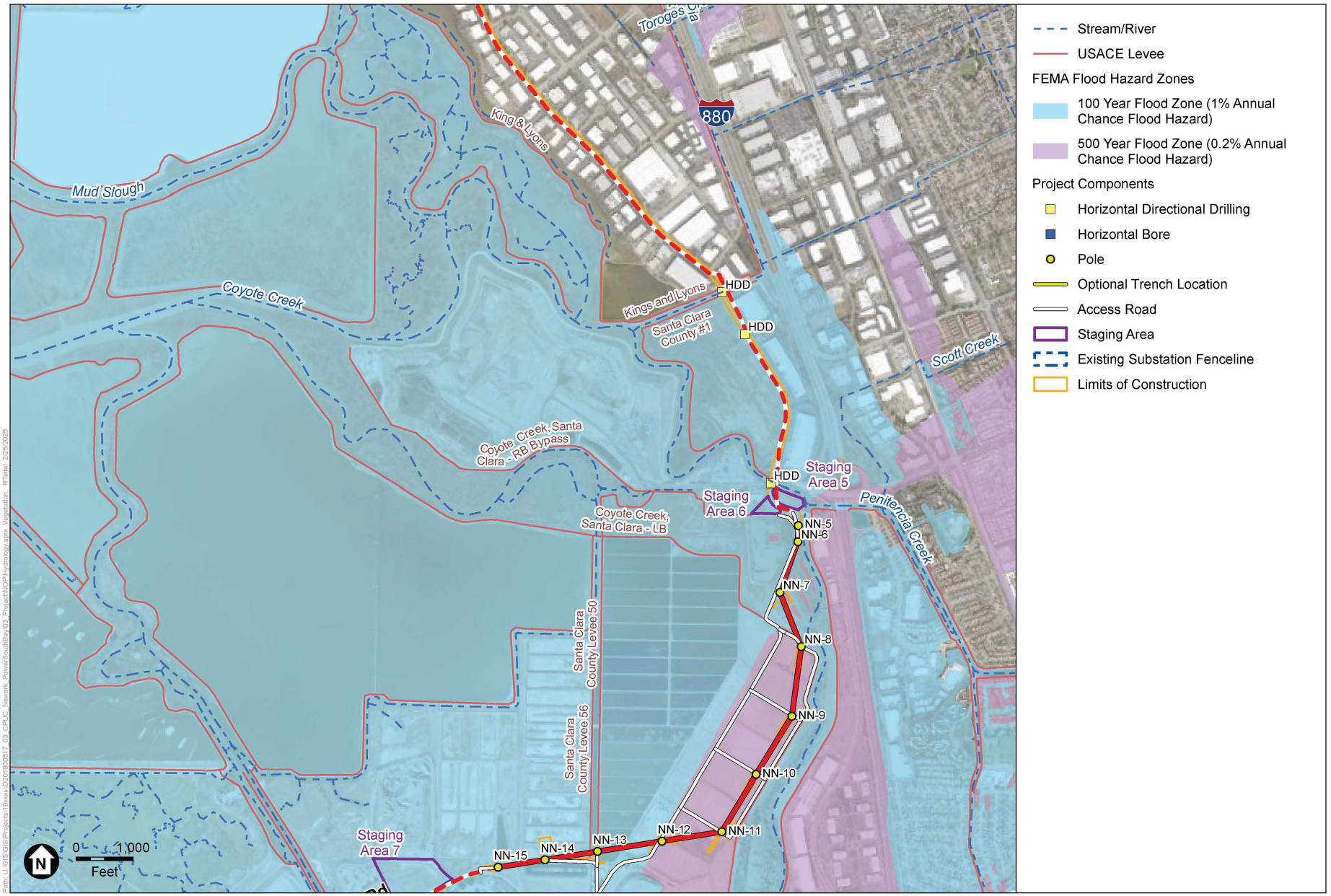


SOURCE: NHD, 2024; FEMA, 2024



Power the South Bay Project

Figure 3.10-1A
Surface Waters and Flood Hazard Zones in the Vicinity of the Project Area

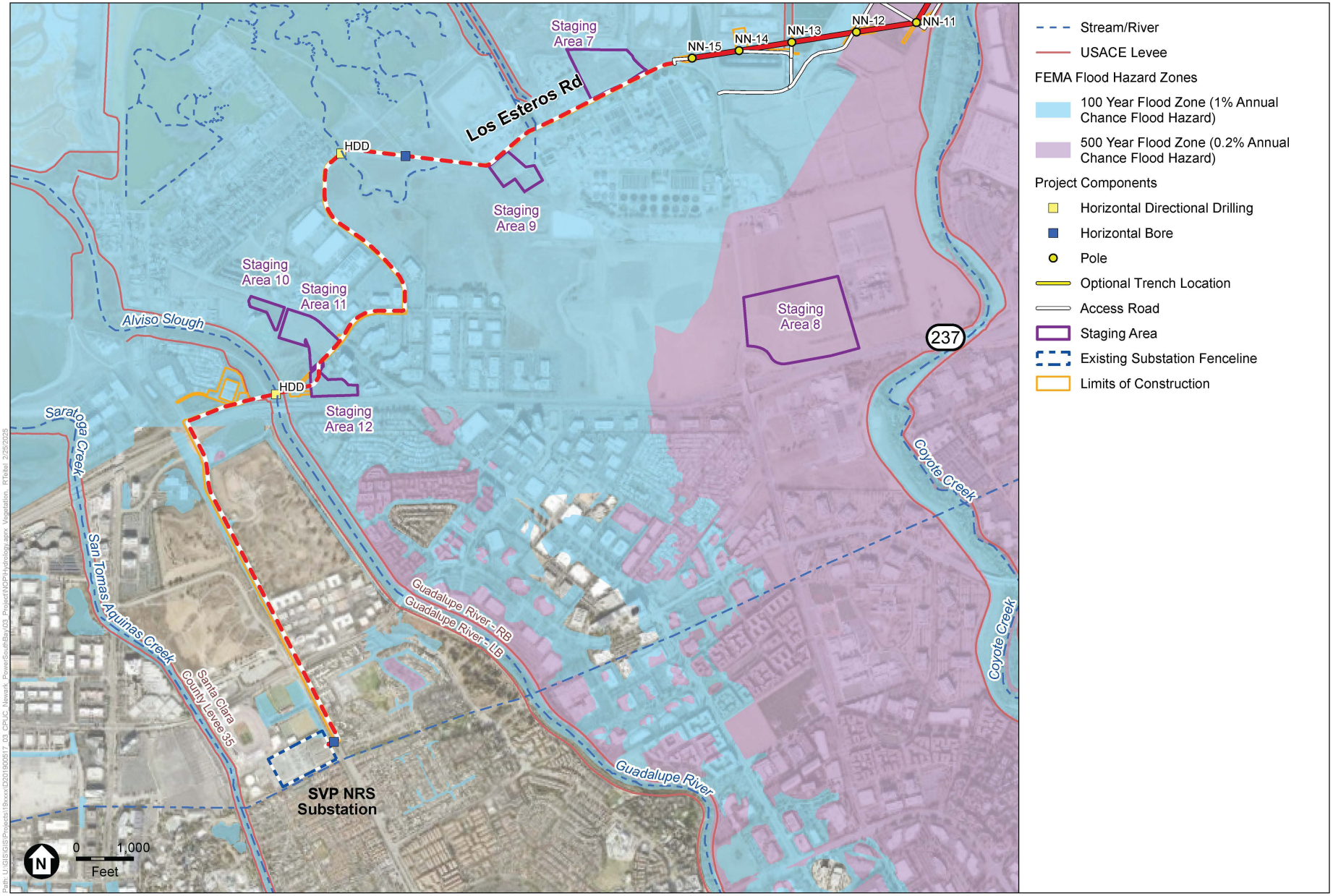


SOURCE: NHD, 2024; FEMA, 2024

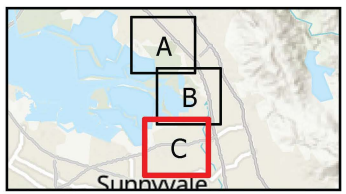
Power the South Bay Project

Figure 3.10-1B
Surface Waters and Flood Hazard Zones in the Vicinity of the Project Area

ESA



SOURCE: NHD, 2024; FEMA, 2024



Power the South Bay Project

Figure 3.10-1C
Surface Waters and Flood Hazard Zones in the Vicinity of the Project Area

Groundwater

The Project would cross two mapped subbasins (Santa Clara and the Niles Cone) of the Santa Clara Valley Groundwater Basin. Due mainly to the high demand for groundwater supplies, these subbasins are identified by the California Department of Water Resources (DWR) as medium and high priority groundwater basins, respectively (DWR 2024a).

The Santa Clara Subbasin extends from the groundwater divide near the city of Morgan Hill to Coyote Creek at the northern border of Santa Clara County. Groundwater quality in the Santa Clara Subbasin is good to excellent mineral composition and suitable for most beneficial uses (see Table 3.10-1). As with the Niles Cone Subbasin, the Santa Clara Subbasin is affected in some areas by historical saltwater intrusion in the northern portion of the subbasin.

The Niles Cone Subbasin, in the northern part of the study area, is bounded by the Diablo Range to the east and the San Francisco Bay to the west. Coyote Creek flows along the southern margin of the subbasin and generally aligns with the border of Santa Clara County. Groundwater quality in the Niles Cone subbasin is generally of good quality; however, saltwater intrusion has been noted historically in certain areas of the western portion of the subbasin (ACWD 2024).

The depth to groundwater is shallow across the study area due to its proximity to San Francisco Bay. Although seasonally variable, the depth to groundwater along the transmission line alignment corridor ranges from 0 to 10 feet below ground surface. At the existing PG&E Newark 230 kV Substation, the depth to groundwater is approximately 5 feet below ground surface. At the existing SVP NRS 230 kV Substation, the depth to groundwater ranges from 5 to 10 feet below ground surface (DWR 2024b).

Jurisdictional Water Features and Levees

Jurisdictional aquatic features such as wetlands, waters of the state, and waters of the United States that are present across the study area are described in detail in Section 3.4, *Biological Resources*. The Project would cross several water bodies (overhead or underground using horizontal directional drilling or jack and bore methods) and U.S. Army Corps of Engineers (USACE) levees (see Figures 3.10-1A through 3.10-1C).

Flooding

Flooding is a temporary overflow of water to land that is normally dry. Flooding can result from rain events, snow melt, storm surge, water system breaks, and dam overflow or failures. Flooding can develop slowly or quickly such as flash floods, which can occur without warning. Mainly due to the low elevations and the Project's proximity to the San Francisco Bay and its surface water tributaries, portions of the Project would be within flood zones defined by the Federal Emergency Management Agency as 100-year (1 percent annual chance flood hazard) and 500-year (2 percent annual chance flood hazard) zones. Surface waters and flood hazard zones in the Project vicinity are depicted on Figures 3.10-1A through 3.10-1C.

Tsunamis

Tsunamis are ocean waves generated by vertical movement of the sea floor, normally associated with earthquakes or volcanic eruptions. The Project site is located in a coastal area at the southern portion of San Francisco Bay, which is partially in an area subject to tsunami risk (Cal OES 2015).

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. The southern San Francisco Bay is a semi enclosed body of water in proximity to the San Andreas and Hayward faults. The Project area could be at risk of seiches if an earthquake or other subsurface landslide under San Francisco Bay occurred.

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) (EPA 2024a).

Clean Water Act Section 303

CWA Section 303(d) authorizes the EPA to assist states, territories, and authorized Tribes in listing impaired waters and developing total maximum daily loads for water bodies. Total maximum daily loads establish the maximum amount of a pollutant allowed in a water body and serves as the basis or planning tool for restoring its water quality (EPA 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

CWA Section 401 requires that applicants for federal permits or licenses for activities resulting in a discharge into a water body must obtain a water quality certification. This certification helps ensure 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 State Water Resources Control Board (SWRCB) and the applicable regional water quality control board (RWQCB) to help ensure that the proposed activity does not violate state or federal water quality standards. The Project would fall under the jurisdiction of the San Francisco Bay RWQCB. Project activities with the potential to impact wetlands and waters of the United States would require a Section 401 water quality certification from the RWQCB.

Clean Water Act Section 402

CWA Section 402 regulates point source and some nonpoint source discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program. In California, the SWRCB oversees the NPDES program, which is administered by the RWQCBs. The NPDES

program provides for both general permits (covering discharges for similar or related activities) and individual permits. The NPDES program covers municipalities, industrial activities, and construction activities. The NPDES program 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 SWRCB as part of the NPDES Program, are discussed below.

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, stormwater discharges associated with industrial activity (including construction activities), and designated stormwater discharges, which are considered significant contributors of pollutants to waters of the United States. Development and redevelopment projects that discharge into municipal separate storm sewer systems must adhere to the requirements set forth for these systems.

Clean Water Act Section 404

CWA Section 404 establishes a permit program, administered by the 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 the USACE.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) was enacted by Congress in 1980 and amended in 1986 and 1996. The major emphasis of the law is on the cleanup of inactive hazardous waste sites. The regulation places the liability for cleanup costs on arrangers and transporters of hazardous substances and on current and former owners of facilities where hazardous substances were disposed of. The National Oil and Hazardous Substance Pollution Contingency Plan outlines CERCLA's implementing regulations. Agencies must follow procedures and standards detailed in this plan when remediating these sites. The major provisions of CERCLA's response authority fall into two general categories: enforcement and the Hazardous Substance Superfund. The Hazardous Substance Superfund provides financing for cleanup and enforcement actions, including oversight (EPA 2024c). The Project would cross through the 550-acre South Bay Asbestos Area which is categorized as a federal superfund site pursuant to CERCLA.

Rivers and Harbors Act

The Rivers and Harbors Act Section 10, 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 affects 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.

The Rivers and Harbors Act Section 14 (United States Code Title 33, Section 408), authorizes the Secretary of the Army, upon the recommendation of the USACE Chief of Engineers, to grant permissions for alterations to U.S. civil works projects (such as levees). This permission is granted if the Secretary determines that the activity would not be injurious to the public interest, impair the Project's usefulness, or affect its flood protection functions. Although no levee alteration is proposed, the Project would include four levee crossings using horizontal directional drilling 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 local and state communities to identify flood hazard areas and publish flood hazard maps of those areas. Floodplain mapping is an ongoing process that integrates land use and development changes with respect to major rivers, tributaries, and their floodplains.

National Pollutant Discharge Elimination System

The NPDES permit program was first established in 1972 under the authority of the CWA to regulate the discharge of pollutants from any point source into waters of the United States. As indicated above, in California, the NPDES stormwater permitting program is administered by the SWRCB and implemented through the San Francisco Bay RWQCB. For all water quality-related objectives under the CWA, including the NPDES, the state must achieve water quality standards that are in effect at both the regional and state levels. At the regional level, the effective plan is the Basin Plan. The Basin Plan and the NPDES permits that apply to activities in San Francisco Bay region are described under regional and state regulations.

3.10.2.2 State

Porter Cologne Water Quality Control Act

The Porter Cologne Water Quality Control Act (California Water Code Division 7) sets forth state standards for water quality. Under this law, the state adopts water quality policies, plans, and objectives that protect California's waters. Whereas the federal CWA focuses on the "waters of the United States," 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 law and periodically updated by the SWRCB and the nine RWQCB. The law outlines the obligations of the SWRCB and RWQCBs, including the adoption of water quality control plans (Basin Plans) and water quality objectives[1]. The Porter Cologne Act was updated in 2023 to include provisions for environmental justice.

[1] "Water quality objectives" as defined under the Porter Cologne Water Quality Control Act means: the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or for the prevention of nuisance within a specific area.

National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities

Construction associated with projects that would disturb more than 1 acre of land surface affecting the quality of stormwater discharges into waters of the United States is subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order No. 2022-0057-DWQ; NPDES No. CAS000002). The Construction Stormwater General Permit (CGP) regulates the discharge of pollutants in stormwater from construction activities into waters of the United States. This applies to construction sites that disturb 1 acre or more of land surface or are part of a common development plan or sale that disturbs more than 1 acre. The permit regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation, construction of buildings, and linear underground projects, including the installation of water pipelines and other utility lines.

The CGP 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 the receiving waters risk during periods of soil exposure (e.g., grading and site stabilization). The sediment risk level indicates the relative amount of sediment that could potentially be discharged into receiving water bodies. It is determined by the nature of the construction activities and the location of the site relative to receiving water bodies. The receiving waters risk level indicates the risk to receiving waters from 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 CGP requires the development and implementation of a stormwater pollution prevention plan (SWPPP) 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: erosion control, sediment control, waste management, and good housekeeping. The BMPs are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the CGP. Additionally, the SWPPP is required to contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The SWPPP must be prepared before construction begins. The SWPPP must contain a site map(s) that delineates the 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. The SWPPP must list BMPs and the placement of those BMPs, which LSPGC 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 if there is a failure of BMPs; 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 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 and vehicle and equipment washing and fueling. The CGP 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 CGP is implemented and enforced by the San Francisco Bay RWQCB, which administers the stormwater permitting program. Dischargers must electronically submit a notice of intent and permit registration documents to obtain coverage under this CGP. Dischargers are to notify the San Francisco Bay RWQCB of violations or incidents of non-compliance and submit annual reports identifying deficiencies in the 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 (SWRCB 2022).

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) of 2014, effective January 1, 2015, empowers local agencies to manage groundwater sustainably and permits limited state intervention when necessary to protect groundwater resources. SGMA defines sustainable groundwater management, establishes a framework for local agencies to develop plans and implement strategies for sustainable groundwater resources, 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 SGMA is based on the prioritization conducted by DWR in 2014 under the California Statewide Groundwater Elevation Monitoring program. SGMA requires the establishment of a groundwater sustainability agency to develop and implement a groundwater sustainability plan. This plan aims to manage and use groundwater in a sustainable manner during the planning and implementation horizon without causing "undesirable results," which are 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 are required to develop and implement a groundwater sustainability plan or alternative plan. DWR identified the Santa Clara and Llagas subbasins as high priority, but not critically over drafted basins (Valley Water 2021). The effective groundwater sustainability agency for the Santa Clara Groundwater Basin, the Santa Clara Subbasin where the Project would be located, is Valley Water. The Groundwater Management Plan (GWMP) for the Santa Clara and Llagas subbasins is the effective alternative plan, as described under local regulations. The Alameda County Water District is the groundwater sustainability agency for the Niles Cone Subbasin. An alternative plan was also developed for this subbasin to satisfy the requirements of SGMA.

3.10.2.3 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. As such, the following local policies and ordinances pertaining to hydrology and water quality that would otherwise be relevant to the Project and alternatives are described below for informational purposes only.

County of Alameda

The Alameda County General Plan Conservation Element (Alameda County 1994) contains the following goal and objectives related to water resources that are relevant to the Project:

Water Resources

Goal: to ensure and maintain a continuing supply of high water quality for the citizens of Alameda County.

Objectives:

2) To conserve groundwater resources and prevent overdraft of existing ground water supplies.

4) To reduce man-caused stream and ground water pollution and general resource degeneration through cumulative impacts on surface and ground water systems.

5) To maintain all water resources in their highest quality.

7) Through sound design of drainage systems throughout the County and by regulation of land use, erosion of soil caused by water could be controlled.

County of Santa Clara

The Santa Clara County General Plan Resource Conservation chapter (Santa Clara County 1994) contains the following policies related to hydrology and water quality that are relevant to the Project:

***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.

***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).

***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.

City of Fremont General Plan

The City of Fremont General Plan Conservation Element (City of Fremont 2011) includes the following goal and policies related to water resources that are relevant to the Project:

Goal 7-2: Water Resources. A protected water resource system that offers natural habitat and enhances the biological value of the city.

***Policy 7-2.1: Preservation of Water Resources*.** Water resources such as the Niles Cone Groundwater Basin, wetlands, flood plains, recharge zones, riparian areas, open space and native habitats should be identified, preserved and restored as valued asset for flood protection, water quality improvement groundwater recharge, habitat and overall long term water resource sustainability.

***Policy 7-2.3: Niles Cone Groundwater Basin Maintenance*.** Maintain the Niles Cone Groundwater Basin as a reliable water source.

***Policy 7-3.1: Protect and Improve Water Quality*.** Protect and improve water quality in all Fremont's creeks, streams, water courses and water bodies.

***Policy 7-3.2: Groundwater Resources*.** Protect groundwater from contamination, specifically, the Niles Cone Groundwater Basin.

***Policy 7-3.3: Enforce Water Quality Requirements*.** Enforce Federal, State, and locally issued mandated regarding water quality such as the National Pollutant Discharge Elimination System (NPDES) permit requirements.

City of Milpitas

The City of Milpitas General Plan Conservation and Sustainability and Safety elements (City of Milpitas 2021) include the following goals related to water resources that are relevant to the Project:

Goal CON-3: Protect and maintain waterways and other sensitive habitat for plant and animal species throughout Milpitas and to protect the health of the San Francisco Bay.

Goal SA-2: Reduce risks to life, property, and public services associated with flooding

City of Santa Clara

The City of Santa Clara General Plan (City of Santa Clara 2010) includes the following goal and policies related to water quality that are relevant to the Project:

5.10.4-G2. High water quality maintained throughout the city.

***5.10.5-P15*.** Require new development to minimize paved and impervious surfaces and promote on-site Best Management Practices for infiltration and retention, including grassy swales, pervious pavement, covered retention areas, bioswales, and cisterns to reduce urban run-off.

***5.10.5-P16*.** Require new development to implement erosion and sediment control measures to maintain an operational drainage system, preserve drainage capacity and protect water quality.

***5.10.5-P17*.** Require that grading and other construction activities comply with the Association of Bay Area Governments' Manual of Standards for Erosion and Sediment Control Measures and with the California Stormwater Quality Association (CASQA), Stormwater Best Management Practice Handbook for Construction.

City of San José

The City of San José General Plan (City of San José 2011) includes the following goals and policies related to water quality that are relevant to the Project:

Goal MS-20: Water Quality. Ensure that all water in San José is of the highest quality appropriate for its intended use.

Policies: Water Quality

***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.

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.

***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.

Goal ER-3: Bay and Baylands. Preserve and restore natural characteristics of the Bay and adjacent lands, and recognize the role of the Bay's vegetation and waters in maintaining a healthy regional ecosystem.

***Policy ER-3.2*:** Cooperate with the County, U.S. Army Corps of Engineers, EPA, California Department of Fish and Game, Bay Conservation and Development Commission (BCDC), and other appropriate jurisdictions to prevent the degradation of baylands by discouraging new filling or dredging of Bay waters and baylands.

***Policy ER-3.4*:** Avoid new development which creates substantial adverse impacts on the Don Edwards San Francisco Bay National Wildlife Refuge or results in a net loss of baylands habitat value.

Santa Clara Valley Water District

Water Resources Protection Ordinance

The Water Resources Protection Ordinance aims 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. In accordance with Valley Water's Water Resources Protection Ordinance, an encroachment permit from Valley Water, subject to conditions of approval, would be required for any work that affects Valley Water facilities or occurs within their fee title property and easements (Valley Water 2007). The Project route across Coyote Creek Trail, Guadalupe Creek Trail, and the Guadalupe River would require an encroachment permit. Because Valley Water permitting is considered a discretionary act under CEQA, Valley Water is considered a responsible agency for CEQA purposes.

Water Resources Protection Manual

The Water Resources Protection Manual was adopted by Valley Water in collaboration with the city and county of Santa Clara and resource agencies in 2006. This manual supports the evaluation of encroachment permit applications and establishes conditions for protecting water resources. Additionally, the manual contains requirements, recommendations, and design standards related to the protection of riparian vegetation, stream bank protection, erosion control, levee and pipeline protection, utility crossings under creeks, among other topics.

Groundwater Management Plan for the Santa Clara and Llagas Subbasins

Valley Water adopted the 2016 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 it satisfies the objectives of 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 help ensure sustainable supplies and avoid land subsidence.
- Aggressively protect groundwater from the threat of contamination.

Santa Clara Valley Urban Runoff Pollution Prevention Program

The cities of Milpitas, San José, and Santa Clara, among other regional municipalities, are members of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVRPPP). This program includes 13 cities and towns in Santa Clara Valley, Santa Clara County, and Valley Water that all share a common NPDES permit to discharge stormwater into South San Francisco Bay. The program and its member agencies implement pollution prevention, source control, monitoring, and outreach efforts to reduce pollution in stormwater runoff, protecting water quality and beneficial uses of San Francisco Bay and Santa Clara Valley creeks and rivers. The effective municipal regional stormwater NPDES permit (Order No. R2-2022-0018; NPDES Permit No. CAS612008) was reissued in 2022 (SWRCB 2022). The Project's reconstruction of roads, 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 LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.10.3.1 LSPGC Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measures (APMs) to reduce potential hydrology and water quality impacts. The analysis assumes that the following APMs would be implemented by LSPGC as part of their portion of work for the Project.

- **APM BIO-17: Wetlands, Vernal Pool, and Waterway Construction Timing Restrictions.** Construction in the vicinity of waterways, wetlands, and vernal pools such as along the Cushing Parkway bridge that borders the Don Edwards San Francisco Bay National Wildlife Refuge (NWR), near vernal pools north of the existing PG&E Newark substation, and in the vicinity of Coyote Creek and Guadalupe River shall be restricted to occur during the dry season (generally from May 1st through October 15th) to the maximum extent possible. This

would minimize the chance of encountering and impacting sensitive species such as vernal pool tadpole shrimp and California tiger salamander that can be found in annual grassland/wetland, wetland, and vernal pool habitat present in these areas as well as fish species such as steelhead, longfin smelt, and green sturgeon that could be using waterways. If construction cannot be conducted during the dry season in the vicinity of waterways, wetlands, and vernal pools, they would be clearly marked and avoided to the maximum extent possible and biological monitors would be present to ensure that no impacts occur.

- **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).
- **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 Proposed Project site in excess of the appropriate regulatory thresholds. In the event of an accidental spill, the Proposed 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 Program.** A HMMP shall be prepared and implemented for the Proposed 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 Proposed Project health and safety roles;
  - Standards for 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 Proposed 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 and OSHA-trained individual and testing at a certified laboratory.

The plan shall be provided to the CPUC prior to construction for record keeping. Plan updates shall be made and submitted as needed if construction activities change such that the existing plan does not adequately address the Proposed Project.

- **APM HAZ-3: Compliance with the Covenant to Restrict Use of Property (Cisco Systems Site 6/Syntax Court Disposal Site).** Construction activities within Cisco Systems Site 6/Syntax Court Disposal Site boundaries (as outlined in [PEA] Figure 5.9-1, *Contaminated Sites Map*) shall comply with Covenant to Restrict Use of Property and Environmental Restriction, signed May 23, 2003. Specific activities could include:

  a) Providing written notice to the Department of Toxic Substances (DTSC) at least 14 days prior to ground disturbing construction activities with the location of excavation, proposed depth, and soil management procedures.

  b) Conduction construction activities in accordance with the SMP and Health and Safety Plan (2001 and 2015 update).

  c) Handling excavated soils in accordance with all applicable local, state, and federal regulation.

- **APM HAZ-4: Compliance with the Covenant and Agreement for Environmental Restrictions (South Bay Asbestos Area).** Construction activities within the south Bay Asbestos Area site boundaries shall comply with the covenant and Agreement for Environmental Restriction, signed October 21, 2004, by the property owner and DTSC. Specific activities would include, but not necessarily be limited to, the following:

  a) Coordinating with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Lead Agency and gaining written approval for ground disturbing activities that could affect the soil cap.

  b) Preparing an SMP for any soils contaminated with asbestos or asbestos containing materials brought to the surface by grading excavation, trenching, or backfilling.

3.10.3.2 PG&E Best Management Practices and Field Protocols

PG&E would be responsible for the implementation of BMPs related to hydrology and water quality. This analysis assumes that the following FPs would be implemented by PG&E during construction of PG&E's portion of work for the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation).

- **PG&E FP-11:** Utilize standard erosion and sediment control BMPs (pursuant to 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-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.

3.10.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to hydrology and water quality within SVP's portion of the Project. However, it is anticipated that SVP would implement applicable measures set forth in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) C.3 Stormwater Handbook (Jackman, pers. comm., 2025).

3.10.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, the Project would result in a significant hydrology and water quality impact 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 off-site.

   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.

   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

This analysis considers the potential impacts on hydrology and water quality associated with construction and operation and maintenance (O&M) of the Project and alternatives. LSPGC has committed to implementing various measures (see APMs provided in Table 2-11) as part of the Project to reduce potential environmental effects. For example, measures (as described in Section 3.10.3, *Applicant-Proposed Measures and Best Management Practices*) are included to help ensure that groundwater dewatering would be handled and discharged in accordance with all state and federal regulations. These measures also manage appropriate secondary containment of potentially hazardous materials, among other precautions. The analysis herein assumes that because more than 1 acre of land would be disturbed during construction, a site-specific SWPPP would be implemented as part of the Project to acquire coverage under the CGP as a linear underground or overhead project. The Project would be regulated by the various laws, regulations, and policies summarized above in Section 3.10.2, *Regulatory Setting*. 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. Note that compliance with many of the regulations is a condition of permit approval.

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: Construction of the Project could violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (*Less than Significant with Mitigation*)

Construction

As described in Section 2.8, *Construction*, Project construction would involve the use of ground-disturbing equipment, site preparation, staging and work areas, trenching, drilling, and other soil disturbance (quantified in Table 2-5, *Summary of Work Area Disturbance*). These activities have the potential to release sediment and other pollutants, which could degrade surface waters or groundwater. This degradation could occur either through the introduction of sediment and other pollutants into water or through the mobilization of existing sediment and pollutants that may be present at the Project sites.

The underground transmission lines would be installed using direct bury trench installations, along with two trenchless horizontal bore methods (jack and bore or micro tunnel) to avoid existing railroad lines. Additionally, nine horizontal directional drill crossings are proposed under waterways, including Coyote Creek, Agua Caliente Creek, Guadalupe River, and other tributaries to San Francisco Bay. Any work that affects Valley Water facilities or work within Valley Water fee title property and easements must comply with encroachment permit requirements, including

those stipulated in Valley Water's Water Resources Protection Ordinance for crossings of Coyote Creek, Coyote Creek Trail, and the Guadalupe River.

Due to the Project's proximity to San Francisco Bay, groundwater levels are shallow, ranging from ground surface level (i.e., 0 feet below ground surface) to approximately 10 feet below ground surface. As noted in Chapter 2, *Project Description*, although the depth of excavation may vary depending on soil stability and other factors, the minimum and maximum foundation depth for the Project's overhead transmission foundations would be 15 and 60 feet, respectively. Therefore, there is a high potential for encountering groundwater during construction. **APM WQ-1: Groundwater Dewatering and Discharge Measures** 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. In addition, LSPGC would implement **Mitigation Measure 3.4-1c: Frac-out Plan**, which would ensure preparation of a frac-out plan to prevent and address potential inadvertent frac-outs.

As discussed in Section 2.8.9, *Dust, Erosion, and Runoff Controls*, the Project would entail more than 1 acre of soil disturbance, necessitating the implementation of a SWPPP in accordance with the CGP. 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 to help stabilize disturbed areas and reduce erosion, sedimentation, and the transport of sediment and other pollutants. Although the SWPPP would designate specific BMPs based on site conditions, BMPs that would be implemented may include, but would not be limited to, silt fencing, straw wattles, erosion control blankets, and riprap. The implementation of erosion control devices 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, such as daily trash removal. 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.

As described in Section 3.10.3, LSPGC has proposed various measures that would also reduce the potential release of sediment and other pollutants that would otherwise degrade surface or groundwater. For example, LSPGC would implement **APM BIO-17: Wetlands, Vernal Pool, and Waterway Construction Timing Restrictions**, which contains provisions to restrict the timing of construction near wetlands and vernal pools (at Don Edwards San Francisco Bay National Wildlife Refuge) and the surface waters of Coyote Creek and Guadalupe River to the dry season. If construction cannot be conducted during the dry season in the vicinity of waterways, wetlands, and vernal pools, they would be clearly marked and avoided to the maximum extent possible. Although the measure is intended to protect biological resources and their habitats, seasonal restrictions (timing construction to coincide with the dry season) would reduce the potential for mobilizing sediment and other pollutants directly into surface waters.

PG&E and SVP construction within their respective portions of the Project would also be subject to similar SWPPP site management requirements. PG&E field protocols, including specific

erosion control measures, wetland avoidance buffers, and other management actions (described in Section 3.10.3), would be implemented to limit potential surface and groundwater quality violations within that portion of the Project for which PG&E is responsible (i.e., interconnecting the new transmission line to the existing PG&E 230 kV Newark Substation). For example, PG&E would implement **PG&E FP-11**, which would use standard erosion and sediment control BMPs to prevent construction site runoff into waterways. PG&E would also implement **PG&E FP-12**, which would require placement of stockpile soil within established work area boundaries to avoid stockpile soil entering water bodies, stormwater inlets, or other standing bodies of water as well as covering stockpiled soil prior to precipitation events.

For the reasons discussed previously in Section 3.9, *Hazards and Hazardous Materials*, Project construction would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. With the implementation of LSPGC APMs, PG&E FPs, and Mitigation Measure 3.4-1c, and this impact would be mitigated to **less than significant**.

Operations and Maintenance

As described in Section 2.10.3, *Demobilization and Site Restoration*, at the conclusion of construction, all temporarily disturbed work areas would be restored to their preconstruction conditions. Areas disturbed by grading, augering, or equipment would be restored to their original contours and drainage patterns. Restoration efforts could include recontouring, reseeding, and planting replacement vegetation. Erosion control measures would be maintained in accordance with SWPPP requirements and permit conditions. Once operational, the Project would not result in ongoing soil disturbances that could impact water quality. Maintenance activities would consist of transmission line inspections and necessary repairs. Regular inspections of access roads would also be conducted to monitor and manage vegetative growth, road conditions, ditch clearance, and drainage. The impacts associated with such O&M activities would be **less than significant**.

Mitigation: Implement Mitigation Measure 3.4-1c.

Mitigation Measure 3.4-1c: Frac-out Plan

To avoid potential indirect impacts to aquatic resources and associated habitats during horizontal boring or horizontal directional drilling (i.e., trenchless techniques) using pressurized drilling fluids, LSPGC or its contractors shall prepare and submit a Frac-out Plan to the CPUC for preventing and addressing potential inadvertent frac-outs. The Frac-out Plan shall specify when a biological monitor will be present during the trenchless technique process, and shall limit work associated with trenchless waterway crossings to daylight hours to enable identification of potential frac-outs and/or potential impacts to sensitive species should a frac-out occur. The Frac-out Plan shall also establish communication protocols and training information for construction personnel, the response materials to be available on site to minimize frac-out effects, and effective responses to potential releases of drilling fluids used during the trenchless technique process. LSPGC's Frac-out Plan shall be submitted to the CPUC 30 days before the start of construction.

Significance after Mitigation: The implementation of LSPGC APMs, PG&E FPs, and Mitigation Measure 3.4-1c would lessen the impacts related to this criterion to a less-than-significant level.

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.

The Project consists of an electrical transmission line with overhead and underground installations, and modifications to the existing PG&E Newark 230 kV Substation and the SVP NRS 230 kV Substation. Given that the Project primarily involves a combination of burying the new transmission line underground within existing roads and installing the transmission line overhead on new transmission poles (typically requiring a foundation hole 6 to 10 feet in diameter), the linear installation would not add substantial impervious surfaces to the ground, nor would it impede sustainable recharge of the groundwater basins. As stated in Chapter 2, the Project would not require water sources for O&M purposes. Additionally, no water lines or other appurtenances are proposed or required. Therefore, once operational, the Project would have no impact related to a decrease in groundwater supplies, interference with groundwater recharge, or impedance of sustainable groundwater management. (*No Impact*)

Impact 3.10-2: Construction of 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 2.8.10, *Water Use and Dewatering*, water would be used during construction for dust suppression, compaction, and site development. It is estimated that 8,000,000 gallons of water would be used during the 26-month construction period. As described in additional detail in Section 3.19, *Utilities and Service Systems*, 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. Therefore, the impacts associated with construction activities 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 methods such as jack and bore, micro-tunneling, and horizontal directional drilling are proposed at all water crossings. (*No Impact*)

As discussed under Impact 3.10-1, and described in Section 3.10.3, APM BIO-17 contains provisions for avoidance of waterways and wetlands that would limit potential effects. As depicted on Figures 3.10-1A through 3.10-1C, underground and overhead segments of the transmission line alignment are proposed within the 100-year and 500-year flood zones. However, given that the Project would primarily involve burying the new transmission line underground within existing roads and would restore disturbed areas to pre-existing conditions, the Project is not expected to substantially alter the existing drainage patterns or add substantial impervious surface area that could alter flooding conditions. Therefore, there would be no impact associated with flooding or the redirection of flood flows.

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. (*Less than Significant)*

The Project involves the construction and operation of a transmission line that would connect the existing PG&E Newark 230 kV Substation to the existing SVP NRS 230 kV Substation. Additionally, the Project includes modifications to the existing PG&E Newark 230 kV Substation and modifications to the existing SVP NRS 230 kV Substation. The Project would be constructed, operated, and maintained upon within terrain with minimal slope variation (in a relatively flat bay side location). Temporary and permanent work area disturbance is quantified in Table 2-5, and discussed in the context of construction and operational impacts as follows.

Construction

The Project would qualify as a linear overhead or underground project with respect to the CGP and would be subject to requirements, 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 CGP, which would include specific BMPs to contain run-on and runoff and control erosion during construction. As identified in Section 3.10.3, APMs would also be implemented to limit potential impacts.

Most of the temporary soil and ground disturbance would occur in staging areas and during excavation or trenching for underground transmission lines. 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 CGP. Such measures typically include placement of straw wattles at grade and stormwater containment devices placed along storm drains to contain mud, silt, and other site contaminants to effectively limit transport through stormwater into the municipal storm drain system. In locations where the transmission line segments are proposed to cross waterways, horizontal directional drilling would be used, which is typically associated with minimal runoff impacts. With implementation of these regulatory control measures, the Project impacts would be **less than significant**.

Operations and Maintenance

This linear transmission line Project would add limited impervious surfaces, such as concrete structure foundations and splice vaults, on terrain with minimal slope variation. As stated in

Section 2.8.3, *Construction Work Areas*, the Project would result in approximately 0.02 acre of permanent disturbance. As discussed, because the Project is proposed on predominantly flat terrain, the potential for the Project to result in conditions of erosion would be minimal. The Project site would be restored to pre-construction conditions at the conclusion of construction. These activities would include revegetation and reseeding of disturbed areas, as well as the restoration of pavements and impacted stormwater conveyance systems. Maintenance of access roads and utility easements would also occur in accordance 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. Therefore, O&M 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 with Mitigation*)

Construction

During construction, large equipment would be required to complete the proposed trenching, auguring, excavation, horizontal directional drilling, jack and bore, or micro-tunneling, among other activities. As discussed, runoff would be controlled through measures that would be in place in accordance with regulatory requirements. A SWPPP would be implemented as part of the CGP, which would include BMPs and control measures to limit mobilization of sediment and other pollutants into stormwater through runoff. Adherence to these regulatory requirements would limit potential impacts associated with construction runoff. However, 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.

Consistent with **APM HAZ-1: Site-Specific Spill Prevention, Control, and Countermeasure Plan** and **APM HAZ-2: Hazardous Materials Management Plan**, LSPGC would prepare a spill prevention countermeasure control plan and a hazardous materials management plan before construction. These plans would outline hazardous materials use, transport, storage, handling, and disposal protocols and would be implemented during construction in accordance with all relevant state and federal regulations governing hazardous materials. For more details, see Section 3.9.

For reasons similar to those discussed under Impact 3.10-3, the Project would not provide additional sources of polluted runoff. However, as the alignment crosses 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 resulted in the contamination of stormwater to the extent that the SCVRPPP municipal regional stormwater (NPDES) permit conditions were compromised. Due to the 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 stormwater permit.

In locations where the Project alignment would cross known contamination sites, specific APMs have been included to address potential conflicts with land covenants. **APM HAZ-3: Compliance with the Covenant to Restrict Use of Property (CISCO Systems Site 6/Syntax Court Disposal Site)** and **APM HAZ-4: Compliance with the Covenant and Agreement for Environmental Restriction (South Bay Asbestos Area)** (listed in Section 3.10.3) both contain provisions for site-specific soil management plans intended to limit the spread of contamination. Construction activities within the Cisco Systems Site 6/Syntax Court boundaries would be required to comply with environmental restrictions and covenant agreement conditions to prevent known contaminated sites from spreading pollutants such as lead or arsenic into other geographic areas or compromising water quality and beneficial uses of surface and groundwater. APM HAZ-3 would require compliance with the Covenant to Restrict Use of Property, which mandates that construction activities be in accordance with the site covenant in place, including a Soil Management Plan prepared in 2001 and a Health and Safety Plan prepared in 2001 and updated in 2015. See Section 3.9.1.8, *Cisco Systems 6/Syntax Court Disposal Site*, for a discussion of the remediation requirements for this site.

For the portion of the alignment that would cross through the South Bay Asbestos Area, a federal superfund site, APM HAZ-4 would require consultation with the CERCLA Lead Agency (EPA) and would require compliance with the *Covenant and Agreement for Environmental Restriction* (DTSC 2003). This agreement runs with the land and would require the preparation of a Soil Management Plan for soils contaminated with asbestos. The Soil Management Plan would also provide guidance for the proper handling, on-site management, and disposal of soil that may be encountered during construction activities. Adherence to these conditions and regulatory controls would limit the potential spread of known contaminants into stormwater. Among the conditions is the requirement that ground disturbance must not disturb the containment "cap" without a Soil Management Plan and prior approval with the CERCLA Lead Agency.

In addition, in the areas identified as having the potential for hazardous materials present that overlap with LSPGC's portion of work for the Project (e.g., San José-Santa Clara RWF, Cisco Systems 6/Syntax Court Disposal Site, and South Bay Asbestos Superfund Site), LSPGC would implement **Mitigation Measure 3.9-1a: Pre-Construction Hazardous Materials Assessment**, **Mitigation Measure 3.9-1b: Health and Safety Plan**, and **Mitigation Measure 3.9-1c: Soil and Groundwater Management Plan**, which requires LSPGC to assess the presence of hazardous materials, then, if necessary, create a specific Health and Safety Plan to address potential site-specific worker health and safety issues during construction, and a Soil and Groundwater Management Plan, specifying protocols for handling and disposing contaminated soil and groundwater.

Compliance with all regulatory requirements and conditions stipulated in the covenant would limit the potential for asbestos releases. With implementation of the aforementioned LSPGC APMs, mitigation measures, and adherence to regulatory requirements, the resulting impact associated with construction activities would be mitigated to **less than significant**.

Operations and Maintenance

Once constructed, the alternating current transmission line alignment would be operated and maintained with minimal to no changes to the site terrain required. The proposed facilities and access roads would be visually inspected to maintain adequate stormwater conveyance and manage vegetation clearance, in accordance with CPUC requirements. The LSPGC, PG&E, and SVP facilities would be operated and maintained in compliance with regulatory standards with respect to use, handling, storage, and transport of hazardous materials. Therefore, the potential impacts would be **less than significant**.

Mitigation: Implement Mitigation Measure 3.9-1a, Mitigation Measure 3.9-1b, and Mitigation Measure 3.9-1c.

Mitigation Measure 3.9-1a: Pre-Construction Hazardous Materials Assessment

Prior to the preparation of the Health and Safety Plan and Soils and Groundwater Management Plan for the Project, LSPGC or its contractor(s) shall perform a limited soil and groundwater investigation at proposed construction work areas that overlap with the San José-Santa Clara RWF, Cisco Systems 6/Syntax Court Disposal Site, and South Bay Asbestos Superfund Site to characterize soil and groundwater quality prior to construction. Samples shall be collected from each of the proposed work areas that will be disturbed during project construction, and these samples shall be collected to the depth of the planned excavation. Subsurface soil samples shall be analyzed for total petroleum hydrocarbons (TPH) (e.g., gasoline, diesel, and waste oil), Title 22 metals, volatile organic compounds (VOCs), and polychlorinated biphenyls (PCBs) to evaluate the potential presence of contamination. Groundwater samples shall be collected if subsurface excavations are anticipated to require dewatering. Additional analyses for VOCs and semi-volatile organic compounds (SVOCs) shall be conducted for groundwater samples collected at construction locations within 1,000 feet of adjacent landfills. In the event the assessment identifies hazardous materials issues, the results of the hazardous materials assessment shall be incorporated into the Site Health and Safety Plan prepared in accordance with Mitigation Measure 3.9-1b and the Soil and Groundwater Management Plan prepared in accordance with Mitigation Measure 3.9-1c to determine whether specific soil and groundwater management and disposal procedures for contaminated materials are required, whether excavated soils are suitable for reuse, and whether construction worker health and safety procedures for working with contaminated materials are required. In the event the assessment does not identify hazardous materials issues, LSPGC shall implement APM WQ-1.

LSPGC shall compile the results of these assessments and analyses into a Pre-Construction Hazardous Materials Assessment, and shall submit this Pre-Construction Hazardous Materials Assessment to the CPUC no less than 60 days before the start of construction.

Mitigation Measure 3.9-1b: Health and Safety Plan

LSPGC or its contractor(s) shall retain a qualified environmental professional to prepare a site-specific Health and Safety Plan (HASP) in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal/OSHA regulations (8 California Code of Regulations Title 8, Section 5192). Because anticipated contaminants vary depending upon the location of proposed improvements in the Project area and may vary over time, the HASP shall address site-specific worker health and safety issues during construction. The HASP shall include the following information:

- Results of sampling conducted in accordance with Mitigation Measure 3.9-1a.
- All required measures to protect construction workers and the general public by including engineering controls, monitoring, and security measures to prevent unauthorized entry to the construction areas and to reduce hazards outside of the construction areas. If prescribed contaminant exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with state and federal regulations.
- Required worker health and safety provisions for all workers potentially exposed to contaminated materials, in accordance with state and federal worker safety regulations, and designated qualified individual personnel responsible for implementation of the HASP.
- The contractor shall have a site health and safety supervisor fully trained pursuant to hazardous materials regulations be present during excavation, trenching, or cut and fill operations to monitor for evidence of potential soil contamination, including soil staining, noxious odors, debris or buried storage containers. The site health and safety supervisor must be capable of evaluating whether hazardous materials encountered constitute an incidental release of a hazardous substance or an emergency spill. The site health and safety supervisor shall implement procedures to be followed in the event of an unanticipated hazardous materials release that may impact health and safety. These procedures shall be in accordance with hazardous waste operations and regulations and shall specifically include, but need not be limited to: 1) immediately stopping work in the vicinity of the unknown hazardous materials release; 2) notifying SCCDEH, RWQCB, or DTSC; and 3) retaining a qualified environmental firm to perform sampling, remediation, and/or disposal.
- Documentation of HASP measures that shall be implemented during the Project's construction.
- Provision that submittal of the HASP to the LSPGC, or any review of the contractor's HASP by LSPGC, shall not be construed as approval of the adequacy of the contractor as a health and safety professional, the contractor's HASP, or any safety measure taken in or near the construction site. The contractor shall be solely and fully responsible for compliance with all laws, rules, and regulations applicable to health and safety during the performance of the construction work.

LSPGC shall submit the Health and Safety Plan to the CPUC no later than 30 days before the start of construction, or upon receipt of the results of the Pre-Construction Hazardous Materials Assessment (whichever comes first).

Mitigation Measure 3.9-1c: Soil and Groundwater Management Plan

LSPGC or its contractor(s) shall direct the construction contractor to prepare and implement a Soil and Groundwater Management Plan, subject to review by the CPUC, that specifies the method for handling and disposal of contaminated soil and groundwater prior to construction. The plan shall include all necessary procedures to ensure that excavated materials and fluids generated during construction are stored, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. The plan shall include the following information.

- Step-by-step procedures for evaluation, handling, stockpiling, storage, testing, and disposal of excavated material, including criteria for reuse and offsite disposal. All

excavated materials shall be inspected prior to initial stockpiling, and spoils that are visibly stained and/or have a noticeable odor shall be stockpiled separately to minimize the amount of material that may require special handling. In addition, excavated materials shall be inspected for buried building materials, debris, and evidence of underground storage tanks; if identified, these materials shall be stockpiled separately and characterized in accordance with landfill disposal requirements. If some of the spoils do not meet the reuse criteria and/or debris is identified, these materials shall be disposed of at a permitted landfill facility.

- Procedures to be implemented if unknown subsurface conditions or contamination are encountered, such as previously unreported tanks, wells, or contaminated soils.
- Procedures for containment, handling, and disposal of groundwater generated from construction dewatering, including the method(s) used to analyze groundwater for hazardous materials likely to be encountered at specific locations (based on the results of Mitigation Measure 3.9-1a), and the appropriate treatment and/or disposal methods.

LSPGC shall submit the Soil and Groundwater Management Plan to the CPUC 30 days before the start of construction.

Significance after Mitigation: Implementation of LSPGC APMs, Mitigation Measure 3.9-1a, Mitigation Measure 3.9-1b, and Mitigation Measure 3.9-1c would ensure that impacts related to this criterion would be less than significant.

Criterion d) Whether the Project in flood hazard, tsunami, or seiche zones, would risk release of pollutants due to Project inundation.

Impact 3.10-5: The Project would be located in flood hazard, tsunami, or seiche zones, and could risk release of pollutants due to inundation. (*Less than Significant*)

The Project would be near San Francisco Bay in the coastal zone, which could flood or experience tsunami or seiche events. As depicted in Figures 3.10-1A through 3.10-1C, 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, which are described in additional detail in Section 3.9.

Construction

APM HAZ-3 and APM HAZ-4 include commitments to comply with regulatory covenants in locations where soil-disturbing activities would cross through known hazardous clean-up sites. Consistent with APM HAZ-1 and APM HAZ-2, a spill prevention countermeasure control plan and a hazardous materials management plan would be prepared before construction. The plans would describe hazardous materials use, transport, storage, handling, and disposal protocols, in accordance with relevant state and federal regulations, and would be implemented during all phases of construction. Standards for secondary containment and countermeasures required for hazardous materials would help limit the potential for release of sediment and other pollutants in the event of inundation. PG&E would adhere to field protocols as described in Section 3.10.3. With adherence to regulatory requirements governing hazardous materials and implementation of the APMs (noted in Section 3.10.3), construction of the Project would not result in substantial release of pollutants due to inundation. Therefore, impacts would be **less than significant**.

Operations and Maintenance

The Project would not involve the placement of habitable structures, such as residences, nor is it expected to require more than one additional staff member for maintenance. As discussed, portions of the alignment would be within identified flood hazard zones and could become inundated by tsunami or seiche. However, O&M activities for both utilities would be conducted in accordance with all regulatory requirements governing hazardous materials. LSPGC has committed to implementing APM HAZ-1 and APM HAZ-2, which would also reduce potential release of pollutants during the Project's O&M phase. For example, secondary containment of hazardous materials would be required during O&M activities, consistent with APM HAZ-1. Additionally, LSPGC would prepare and implement a hazardous materials management plan (APM HAZ-2) in accordance with relevant state and federal guidelines and regulations, including those of the California Division of Occupational Safety and Health, applicable during O&M activities. For the portions of the Project for which its responsible, PG&E would adhere to operational standards and would implement field protocols such as **PG&E FP-15** and **PG&E FP-16**, which contain specific wetland buffer requirements for vehicle refueling and require secondary spill containment protocols. With adherence to the utility operational standards and regulatory requirements, and implementation of the APMs and PG&E field protocols, the Project's O&M would not result in substantial releases of pollutants in the event of inundation. Therefore, 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 with Mitigation*)

Construction

During construction, as discussed under Impact 3.10-1, temporary soil disturbances would occur through excavation, auguring, trenching, horizontal directional drill, jack and bore, and micro tunneling, along with the use of staging and work areas. The total areas of disturbance are conservatively quantified in Table 2-5. As noted, the Project would disturb more than 1 acre of land surface and has the potential to impact the quality of surface waters and groundwater; therefore, the Project would obtain discharge coverage through the CGP for this activity. As part of the CGP, a site-specific SWPPP would be developed and implemented containing controls to limit runoff, in accordance with regulations governing water quality. As described in Section 2.8.10, dewatering from excavations would be conducted in accordance with the provisions of Attachment J to the Construction General Stormwater Permit (Order WQ 2022-0057-DWQ). Additionally, APM WQ-1 and the other APMs described in Section 3.10.3, would be implemented to reduce potential water quality effects. Further, as discussed in Impact 3.10-1, LSPGC would implement Mitigation Measure 3.4-1c, which would ensure preparation of a frac-out plan to prevent and address potential inadvertent frac-outs.

The implementation of these measures and adherence with the regulatory requirements would protect beneficial uses of the region's waters and not compromise the total maximum daily loads in place for Coyote Creek or the Guadalupe River, as outlined in the Basin Plan. The activities would align with the discharge requirements in the effective municipal regional stormwater NPDES permit (discussed under Impact 3.10-1). As proposed, construction would protect groundwater from contamination, consistent with the goals of the GWMP for the Santa Clara and Llagas subbasins. Therefore, there would be no conflicts with the plan or with SGMA, and potential impacts would be mitigated to **less than significant**.

Operations and Maintenance

Once operational, limited soil disturbance would occur. 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. As discussed under Impacts 3.10-1 and 3.10-2, the Project's O&M would not conflict with the implementation of a water quality control plan or the effective sustainable GWMP. Therefore, impacts would be **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.4-1c.
>
> **Significant after Mitigation:** Implementation of APMs and Mitigation Measure 3.4-1c would ensure that impacts related to this criterion would be less than significant.

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 26-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 with Mitigation*)

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, 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. Additionally, Mitigation Measure 3.4-1c would be implemented to ensure preparation of a frac-out plan to prevent and address potential inadvertent frac-outs.

LSPGC would be required to obtain NPDES coverage under the state Construction General Permit program and implement a SWPPP and/or WDR. In addition, the Project includes BMPs (as listed in Section 3.10.3) that would be implemented as necessary during construction to limit erosion, prevent runoff, provide procedures for safe transport, handling, and management of contaminants, provide procedures to be followed in the event of incidental leaks and spills, among other measures.

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 APM WQ-1 will be implemented to ensure any water quality degradation is limited or avoided altogether, it is assumed that other projects in the vicinity will likewise handle or discharge any groundwater in accordance with state and federal regulations, 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, PG&E FPs and Mitigation Measure 3.4-1c, 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** with mitigation.

Mitigation: Implement Mitigation Measure 3.4-1c.

Significance after Mitigation: The implementation of LSPGC APMs, PG&E FPs, and Mitigation Measure 3.4-1c would lessen the cumulative impacts related to this criterion to a less-than-significant level.

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. It is estimated that 8,000,000 gallons of water would be used during the 26-month construction period. 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 requirements of the CGP, 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 CGP, which would include specific BMPs to contain run-on and runoff and control erosion during construction. As identified in Section 3.10.3, APMs would also be implemented to limit potential impacts. 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 CGP. In locations where the transmission line segments 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.

Operations 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 the Project is proposed on predominantly flat terrain, the potential for the Project to result in conditions of erosion would be minimal. The Project site 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 with Mitigation*)

As discussed above, 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 CGP and would include BMPs and other control measures to limit such 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.

As the alignment crosses through known contamination sites, a potentially significant impact would occur if construction resulted in the contamination of stormwater to the extent that the SCVRPPP municipal regional stormwater (NPDES) permit conditions were compromised. Due to the 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 stormwater permit. Additionally, construction activities within the Cisco Systems Site 6/Syntax Court boundaries would be required to comply with environmental restrictions and covenant agreement conditions to prevent known contaminated sites from spreading pollutants such as lead or arsenic into other geographic areas or compromising water quality and beneficial uses of surface and groundwater.

Compliance with all regulatory requirements and conditions stipulated in the covenant would limit the potential for asbestos releases. All other foreseeable projects within the area would also be incompliance with all applicable laws and regulations. With implementation of the aforementioned LSPGC APMs, Mitigation Measure 3.9-1a, Mitigation Measure 3.9-1b, Mitigation Measure 3.9-1c, 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.

Once constructed, the alternating current transmission line alignment would be operated and maintained with minimal to no changes to the site terrain required. The proposed facilities and access roads would be visually inspected to maintain adequate stormwater conveyance and manage vegetation clearance, in accordance with CPUC requirements. The LSPGC, PG&E, and SVP 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** with mitigation.

> **Mitigation:** Implement Mitigation Measure 3.9-1a, Mitigation Measure 3.9-1b, and Mitigation Measure 3.9-1c.
>
> **Significance after Mitigation**: Implementation of LSPGC APMs, Mitigation Measure 3.9-1a, Mitigation Measure 3.9-1b, and Mitigation Measure 3.9-1c would ensure that impacts related to this criterion would be less than significant.

3.10.6.4 Criterion d)

Impact C.3.10-5: The Project, in combination with the cumulative projects, would be located in flood hazard, tsunami, or seiche zones, and could risk release of pollutants due to inundation. (*Less than Significant*)

As discussed above, the Project would be near San Francisco Bay in the coastal zone, which could flood or experience tsunami or seiche events, and 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 the APM HAZ-1 through APM HAZ-4 and PG&E FP-15 and PG&E FP-16, construction of the Project would not result in substantial release of pollutants due to inundation. Additionally, O&M 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 O&M phase.

Adherence to these requirements, APMs, and PG&E BMPs would ensure the Project's incremental contribution to the risk of release of pollutants due to inundation, tsunami, or seiche 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 with Mitigation*)

As discussed above, though temporary soil disturbances would occur with construction activities, with the implementation of a site-specific SWPPP and APMs, construction would protect groundwater from contamination consistent with the goals of the GWMP for the Santa Clara and Llagas subbasins. Additionally, APM WQ-1 and the other APMs described in Section 3.10.3, would be implemented to reduce potential water quality effects. Further, as discussed in Impact 3.10-1, LSPGC would implement Mitigation Measure 3.4-1c, which would ensure preparation of a frac-out plan to prevent and address potential inadvertent frac-outs. Therefore, there would be no conflicts 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 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** with mitigation.

Mitigation: Implement Mitigation Measure 3.4-1c.

Significant after Mitigation: Implementation of APMs and Mitigation Measure 3.4-1c would ensure that cumulative impacts related to this criterion would be less than significant.

3.10.7 References

ACWD (Alameda County Water District). 2024. *2023 Groundwater Monitoring Report*. February 1, 2024. Available: https://www.acwd.org/DocumentCenter/View/6588/2023-GWMR. Accessed November 4, 2024.

Alameda County. 1994. *Conservation Element of the Alameda County General Plan.* Adopted November 23, 1976; amended May 5, 1994. Available: https://acgov.org/cda/planning/generalplans/documents/Conservation_Element_1994.pdf. Accessed November 4, 2024.

Cal OES (California Governor's Office of Emergency Services). 2015. MyHazards. Available: https://myhazards.caloes.ca.gov/. Accessed November 11, 2024.

City of Fremont. 2011. *City of Fremont General Plan.* Adopted December 2011. Chapter 7, "Conservation." Available: https://www.fremont.gov/home/showpublisheddocument/791/637750630830170000. Accessed November 4, 2024.

City of Milpitas. 2021. *General Plan 2040 City of Milpitas*. Adopted March 9, 2021. Available: https://www.milpitas.gov/DocumentCenter/View/1167/Conservation-and-Sustainability-PDF?bidId=. Accessed November 4, 2024.

City of San José. 2011. *Envision San José 2040*. Adopted November 1, 2011; as amended on October 24, 2024. Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan. Accessed November 4, 2024.

City of Santa Clara. 2010. *City of Santa Clara 2010-2035 General Plan*. Adopted November 16, 2010. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed November 4, 2024.

DTSC (California Department of Toxic Substances). 2003. Envirostor: Cisco Systems Site 6 (43010027). Available: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=43010027. Accessed: January 8, 2025.

DWR (California Department of Water Resources). 2024a. SGMA Basin Prioritization Dashboard. Available: https://gis.water.ca.gov/app/bp-dashboard/final/. Accessed November 11, 2024.

DWR (California Department of Water Resources). 2024b. SGMA Data Viewer: Groundwater Levels. Available: https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels. Accessed November 11, 2024.

EPA (U.S. Environmental Protection Agency). 2024a. Clean Water Act (CWA) and Federal Facilities. Available: https://www.epa.gov/enforcement/clean-water-act-cwa-and-federal-facilities. Accessed October 25, 2024.

EPA (U.S. Environmental Protection Agency). 2024b. Clean Water Act Section 303(d): Impaired Waters and Total Maximum Daily Loads (TMDLs). Available: https://www.epa.gov/tmdl. Accessed January 8, 2025.

EPA (U.S. Environmental Protection Agency). 2024c. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Federal Facilities. Available: https://www.epa.gov/enforcement/comprehensive-environmental-response-compensation-and-liability-act-cercla-and-federal#Basics%20of%20CERCLA. Accessed January 8, 2025.

Jackman, Allie. 2025. Email correspondence from Allie Jackman, Division Manager for Silicon Valley Power, to Tommy Alexander, Senior Regulatory Analyst for the CPUC, and Vince Molina, Planner with Environmental Science Associates, regarding interconnection with Silicon Valley Power infrastructure.

LSPGC (LS Power Grid California, LLC). 2024. *Proponents Environmental Assessment for LS Power Grid California, LLC's Power the South Bay Project*. Application to the California Public Utilities Commission. Available: https://ia.cpuc.ca.gov/environment/info/esa/psb/pdfs/Filed_PEA.pdf. Accessed November 4, 2024.

San Francisco Bay RWQCB (San Francisco Bay Regional Water Quality Control Board). 2022. Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). Available: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/bp_ch1-7_print.html. Accessed January 14, 2025.

Santa Clara County. 1994. *Santa Clara County General Plan: Book A*. Adopted December 20, 1994. Available: https://stgenpln.blob.core.windows.net/document/GP_Book_A.pdf. Accessed November 4, 2024.

SWRCB (California State Water Resources Control Board). 2022. Fact Sheet Order WQ 2022-0057-DWQ NPDES No. CAS000002. Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/docs/2022-0057-dwq-with-attachments/cgp2022_factsheet.pdf. Accessed November 20, 2024.

SWRCB (California State Water Resources Control Board). 2024a. Integrated Report Map. Available: https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=f0e4ac76fd0e4a53bebead89339ef3c9. Accessed January 16, 2025.

SWRCB (California State Water Resources Control Board). 2024b. *Final Staff Report for the 2024 California Integrated Report for the Clean Water Act 303(d) List and 305(b) Report Final Revised Appendix A Recommended 2024 303(d) List of Impaired Waters.* Available: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024-integrated-report.html. Accessed October 28, 2024.

Valley Water (Santa Clara Valley Water District). 2007. *Water Resources Protection Ordinance*. Adopted on October 24, 2006. Effective February 28, 2007. Available: https://www.valleywater.org/sites/default/files/WRPO.pdf. Accessed October 17, 2024.

Valley Water (Santa Clara Valley Water District). 2021. *Groundwater Management Plan for the Santa Clara and Llagas Subbasins.* November 2021. Available: https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/2021_GWMP.pdf. Accessed October 24, 2024.

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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 B***, Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to land use and planning.

3.11.1 Environmental Setting

The Project area is located in the cities of Fremont, Milpitas, San José, and Santa Clara within Alameda and Santa Clara counties. The entire Project alignment would be within these incorporated cities, primarily on developed land. The components of the Project alignment and the land uses can be found in **Table 3.11-1**, *Land Use and Zoning Designations for Project Components, by Jurisdiction*. Zoning designation is shown in **Figures 3.11-1A** through **3.11-1D** and land use designation is shown in **Figures 3.11-2A** through **3.11-2D** for the Cities of Fremont, Milpitas, San José, and Santa Clara, respectively.

3.11.2 Regulatory Setting

3.11.2.1 Federal

No federal policies or regulations pertaining to land use and planning are applicable to the Project.

3.11.2.2 State

California Public Utilities Commission, General Order 131-D

The CPUC has sole and exclusive jurisdiction over the siting and design of the Project. It regulates services and utilities and helps ensure California's access to safe and reliable utility infrastructure and services. The CPUC regulates utility construction by investor-owned utilities within its jurisdiction, including the location and relocation of transmission lines. Pursuant to General Order 131-D, the work of investor-owned utilities regulated by the CPUC is exempt from local land use approval requirements (CPUC 2023). Although local jurisdictions are preempted from using their local land use authority to regulate electric facilities constructed by public utilities, local agency plans would be consulted regarding land use matters.

TABLE 3.11-1
LAND USE AND ZONING DESIGNATIONS FOR PROJECT COMPONENTS, BY JURISDICTION

Project Component	City	General Plan Land Use Designation	Zoning Designation	Distance/Area (miles/acres)
PG&E Newark 230 kV Substation	Fremont	General Industrial	Industrial General (I-G)	0.5 acre
Newark to NRS 230kV AC Transmission Line	Fremont	General Industrial	Industrial General (I-G)	1.000 mile
	Fremont	Regional Commercial	Commercial Regional (C-R)	0.530 mile
	Fremont	Tech Industrial	Commercial Regional (C-R)	0.001 mile
	Fremont	General Industrial	Industrial General (I-G)	0.572 mile
	Fremont	Regional Commercial	Industrial General (I-G)	0.001 mile
	Fremont	Open Space – Resource Conservation/Public	Industrial Tech (I-T)	0.003 mile
	Fremont	Public Facility	Industrial Tech (I-T)	0.001 mile
	Fremont	Tech Industrial	Industrial Tech (I-T)	3.088 miles
	Fremont	Light Industrial	Open Space (OS)	0.003 mile
	Fremont	Open Space – Private	Open Space (OS)	0.044 mile
	Fremont	Open Space – Resource Conservation/Public	Open Space (OS)	0.773 mile
	Fremont	Tech Industrial	Open Space (OS)	0.003 mile
	Fremont	Open Space – Resource Conservation/Public	Planned District (P-2000-214)	0.001 mile
	Fremont	Tech Industrial	Planned District (P-2000-214)	0.344 mile
	Fremont	Public Facility	Public Facility (PF)	0.130 mile
	Fremont	Tech Industrial	Public Facility (PF)	0.001 mile
	Milpitas	Open Space, Parklands, and Habitat	Park Open Space (POS)	0.008 mile
	Milpitas	Permanent Open Space	Park Open Space (POS)	0.155 mile
	San José	Open Space, Parklands, and Habitat	Agricultural (A)	0.005 mile
	San José	Permanent Open Space	Agricultural (A)	0.003 mile
	San José	Open Space, Parklands, and Habitat	Heavy Industrial (HI)	0.283 mile
	San José	Permanent Open Space	Heavy Industrial (HI)	0.005 mile
	San José	Public/Quasi-Public	Heavy Industrial (HI)	1.537 miles
	San José	Open Space, Parklands, and Habitat	Residence District (8DU/Acre) (R-1-8)	0.197 mile
Newark to NRS 230 kV AC Transmission Line	San José	Combined Industrial/Commercial	Agricultural (A)	0.218 mile
	San José	Open Space, Parklands, and Habitat	Agricultural (A)	0.062 mile
	San José	Combined Industrial/Commercial	Heavy Industrial District (HI)	0.102 mile

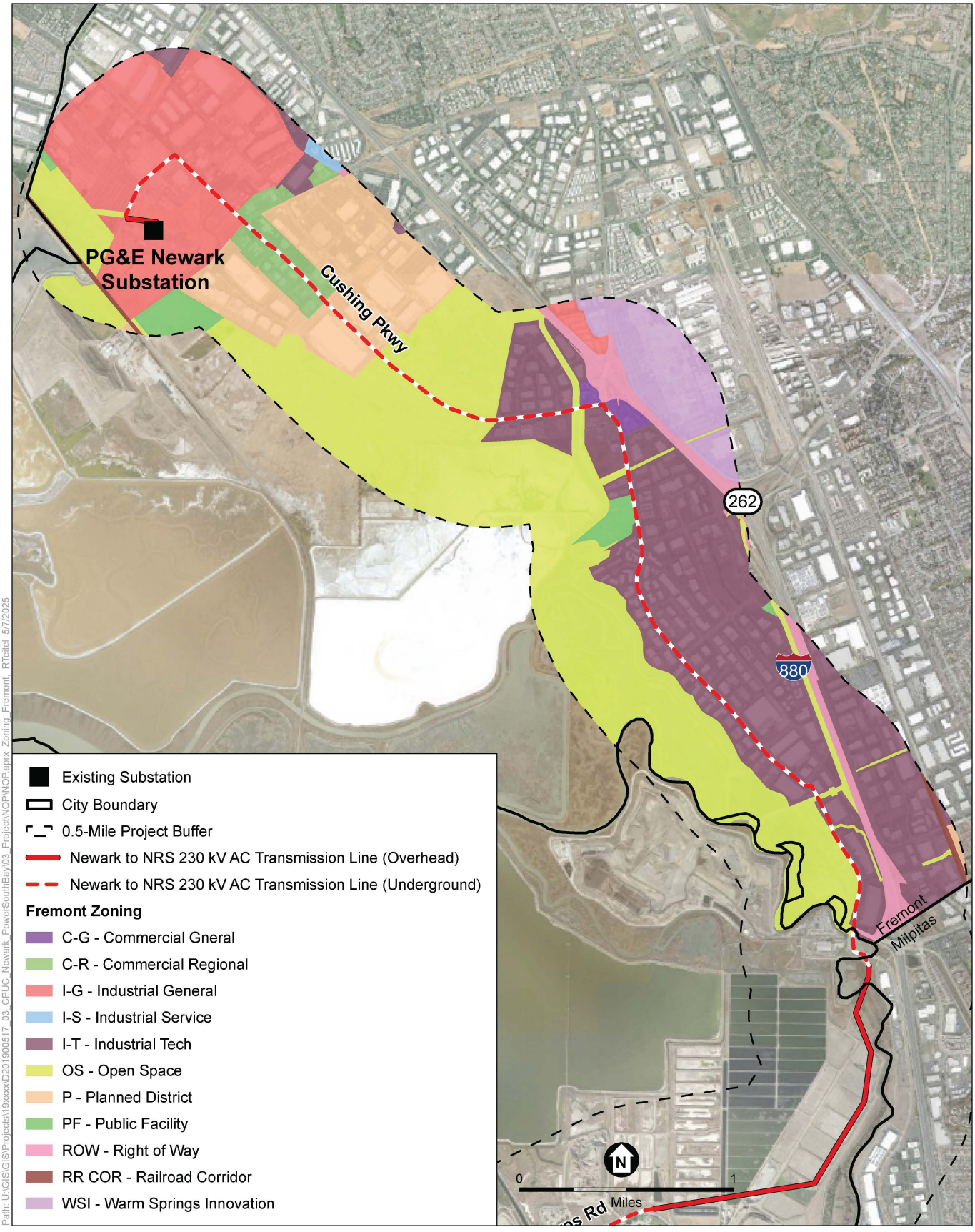
TABLE 3.11-1
LAND USE AND ZONING DESIGNATIONS FOR PROJECT COMPONENTS, BY JURISDICTION

Project Component	City	General Plan Land Use Designation	Zoning Designation	Distance/Area (miles/acres)
	San José	Open Space, Parklands, and Habitat	Heavy Industrial District (HI)	0.005 mile
	San José	Open Space, Parklands, and Habitat	Residence District (8DU/Acre) (R-1-8)	0.196 mile
	San José	Open Space, Parklands, and Habitat	R-M Residence District (R-M)	0.064 mile
	Santa Clara	Regional Commercial	B (Public or Quasi Public)	0.027 mile
	Santa Clara	Parks/Open Space	Planned Development-Master Community (PD-MC)	0.145 mile
	Santa Clara	Urban Center/Entertainment District	Planned Development-Master Community (PD-MC)	0.145 mile
SVP NRS 230 kV Substation	Santa Clara	Regional Commercial	Public or Quasi Public (B)	13.5 acres
Staging Area 1	Fremont	Industrial-General	Industrial General (I-G)	5.4 acres
Staging Area 2	Fremont	Industrial-General	Industrial General (I-G)	24.6 acres
Staging Area 3	Fremont	Industrial-General	Industrial General (I-G)	7.8 acres
Staging Area 4	Fremont	Industrial-Tech	Industrial Tech (I-T)	3.1 acres
Staging Area 5	San José	Neighborhood/Community Commercial (NCC)	Agricultural (A)	2.6 acres
Staging Area 6	San José	Neighborhood/Community Commercial (NCC)	Agricultural (A)	1.8 acres
Staging Area 7	San José	Public Quasi Public (PQP)	Light Industrial (LI)	16.7 acres
Staging Area 8	San José	Industrial Park (IP) and Combined Industrial/Commercial (CIC)	Agricultural (A)	51.6 acres
Staging Area 9	San José	Open Space, Parklands, and Habitat (OSPH)	Residence District (8DU/Acre) (R-1-8)	7.7 acres
Staging Area 10	San José	Combined Industrial/Commercial (CIC)	Combined Industrial/ Commercial District (CIC)	3.4 acres
Staging Area 11	San José	Combined Industrial/Commercial (CIC)	Agricultural (A)	12.0 acres
Staging Area 12	San José	Combined Industrial/Commercial (CIC)	Agricultural (A)	6.0 acres

NOTES:

8DU/Acre R-1-8 = Residence District; A = Agricultural; B = Public or Quasi Public; C-R = Commercial Regional; CIC = Combined Industrial/Commercial; HI = Heavy Industrial District; I-G = Industrial General; I-T = Industrial Tech; IP = Industrial Park; kV = kilovolt; LI = Light Industrial; NCC = Neighborhood/Community Commercial; NRS = Northern Receiving Station; OS = Open Space; OSPH = Open Space, Parklands, and Habitat; P-2000-214 = Planned District; PD-MC = Planned Development-Master Community; PF = Public Facility; POS = Park Open Space; PQP = Public Quasi Public; R-M = R-M Residence District; SVP = Silicon Valley Power

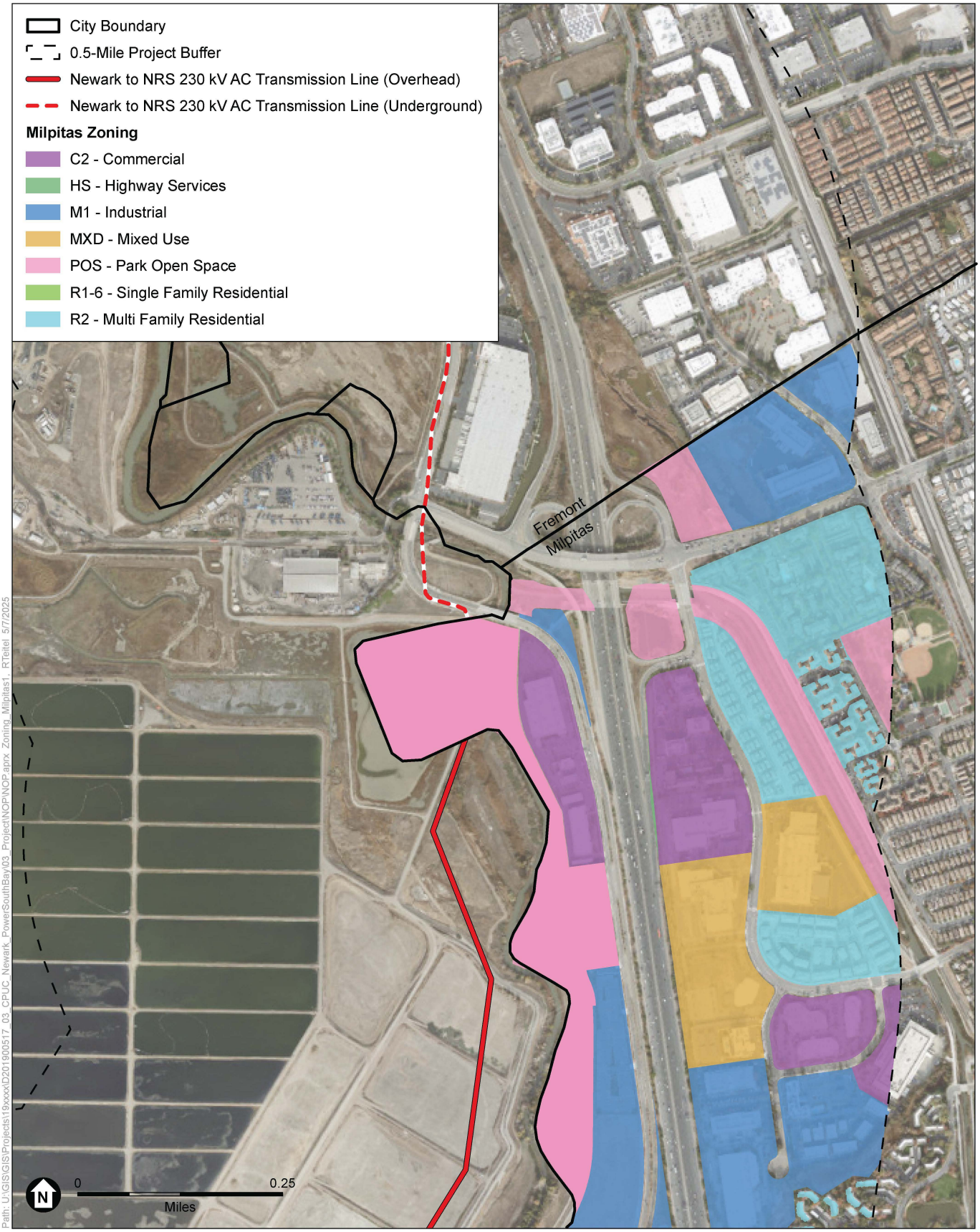
SOURCE: Data compiled by Environmental Science Associates in 2025.



SOURCE: KP Environmental, 2024; City of Fremont, 2024

Power the South Bay Project

Figure 3.11-1A
City Fremont Zoning



SOURCE: KP Environmental, 2024; Milpitas, 2024

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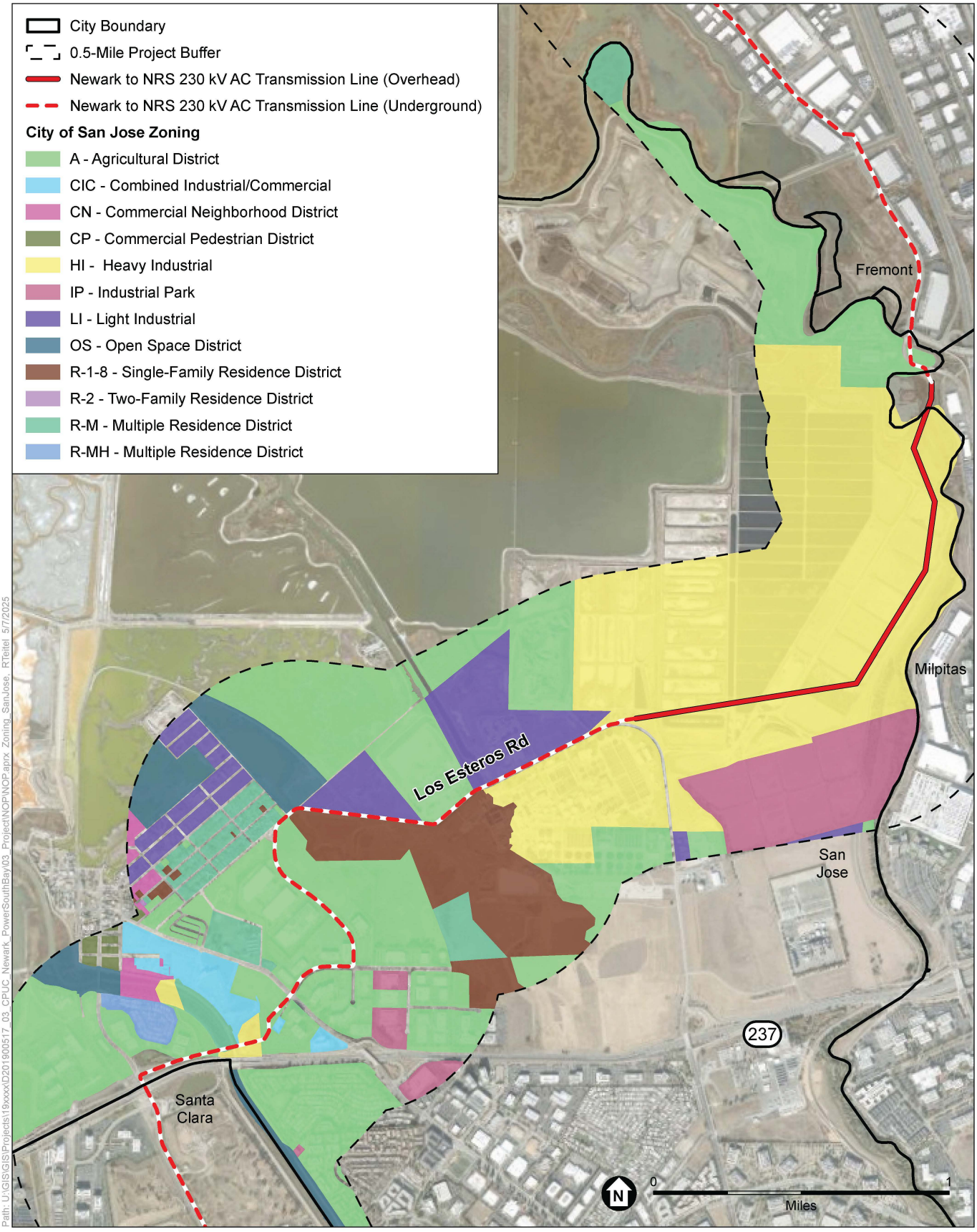
Figure 3.11-1B
City of Milpitas Zoning



SOURCE: KP Environmental, 2024; City of San Jose, 2024

Power the South Bay Project

Figure 3.11-1C
City of San Jose Zoning

Path: U:\GIS\GIS\Projects\19xxxx\ID20190517_03_CPUC_Newark_PowerSouthBay\03_Project\NOP\NOPaprx_Zoning_SantaClara_RTeitel 5/7/2025

SOURCE: KP Environmental, 2024; City of Santa Clara, 2024

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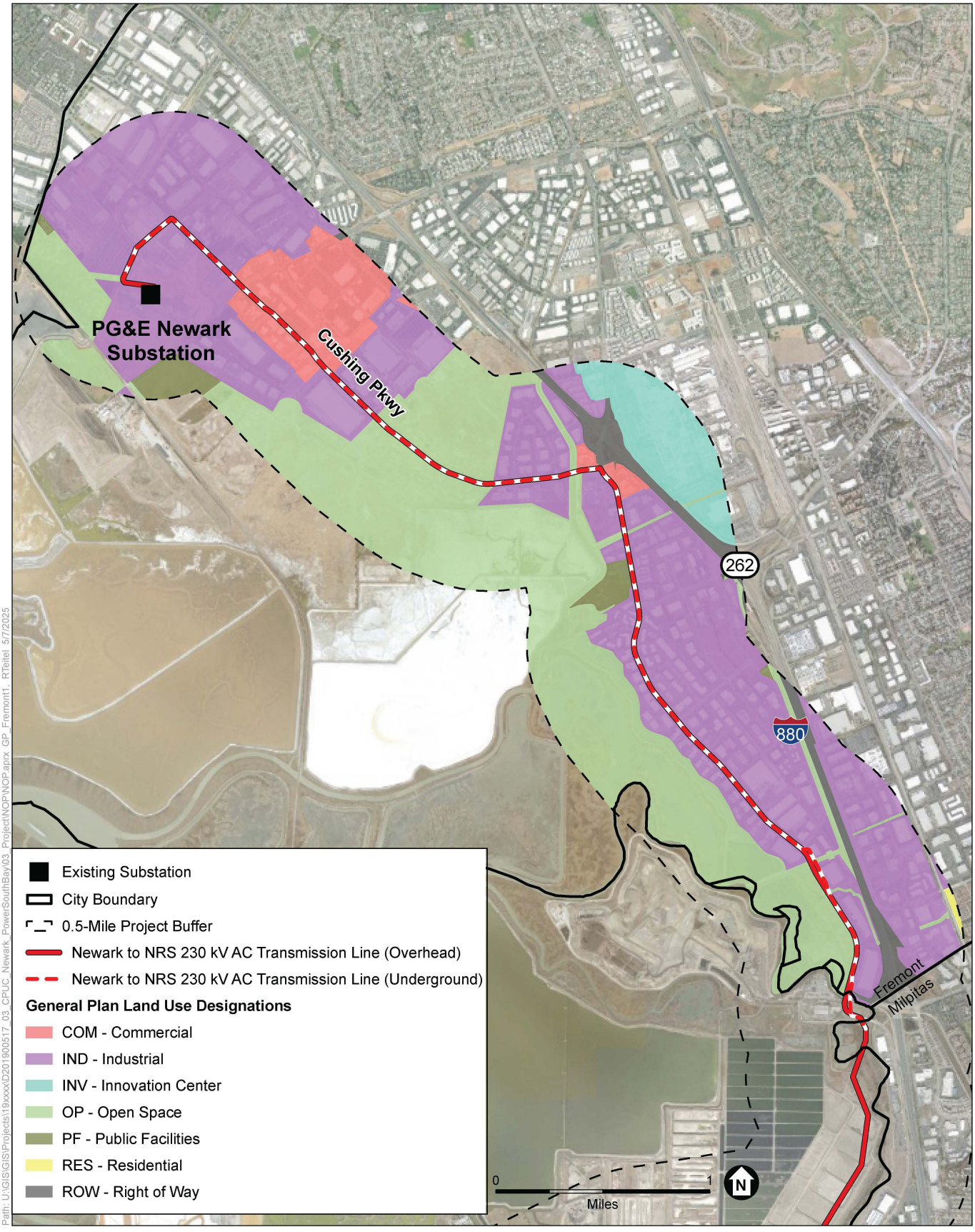
Figure 3.11-1D
City of Santa Clara Zoning



SOURCE: KP Environmental, 2024; City of Fremont, 2024

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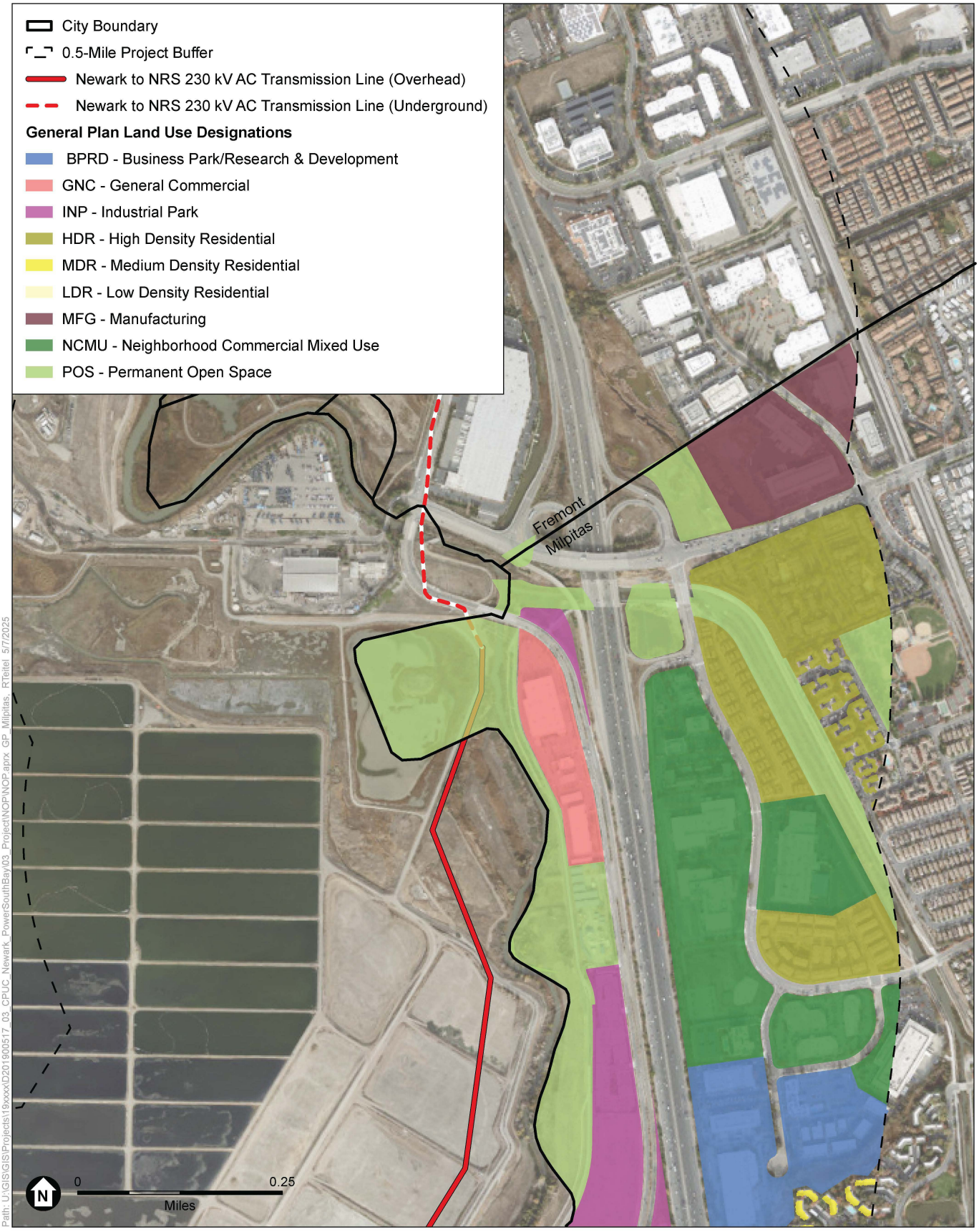
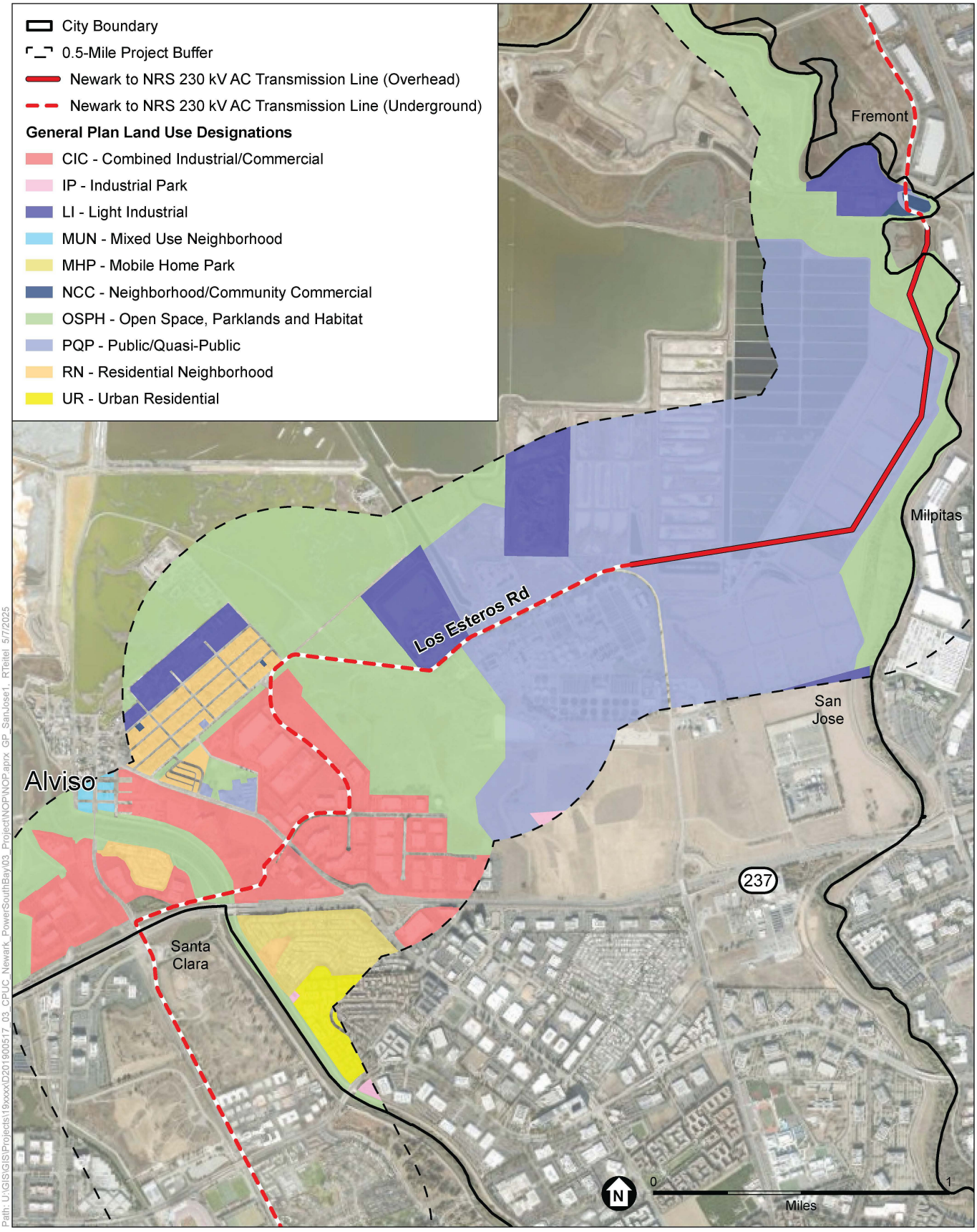
Figure 3.11-2A
City of Fremont General Plan Land Use



SOURCE: KP Environmental, 2024; Milpitas, 2024

Power the South Bay Project

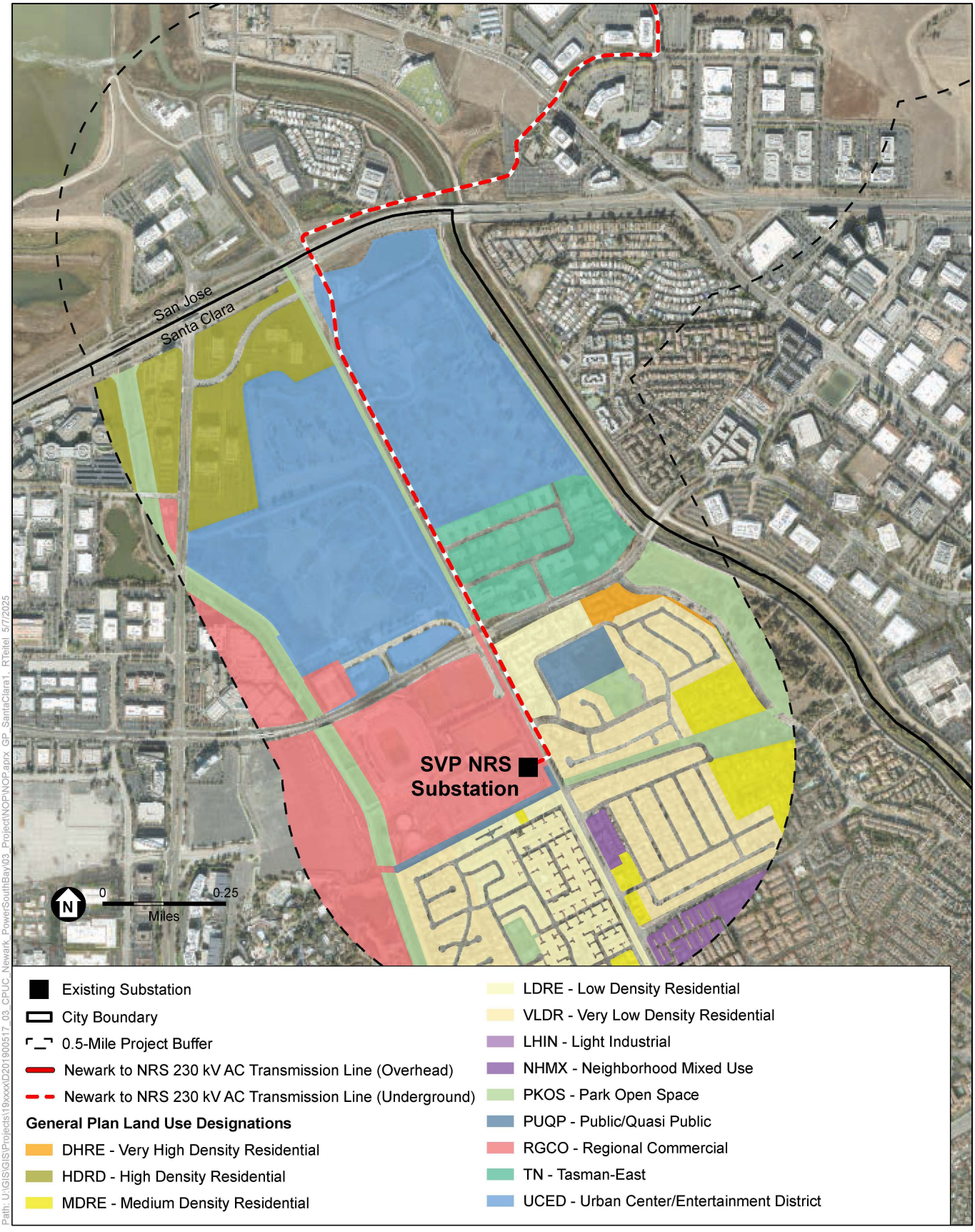
Figure 3.11-2B
City of Milpitas General Plan Land Use



SOURCE: KP Environmental, 2024; City of San Jose, 2024

Power the South Bay Project

Figure 3.11-2C
City of San Jose General Plan Land Use



SOURCE: KP Environmental, 2024; City of Santa Clara, 2024

Power the South Bay Project

Figure 3.11-2D
City of Santa Clara General Plan Land Use

3.11.2.3 Local

Fremont

Title 18 of the city of Fremont's Code of Ordinances outlines the land use designations specified in the City's General Plan Land Use element (City of Fremont 2011). As shown in Figure 3.11-1, the Project areas within the city of Fremont are zoned for Industrial General, Commercial Regional, Industrial Tech, Open Space, Planned District, and Public Facility. Furthermore, the Project is on lands designated in the General Plan as General Industrial, Regional Commercial, Tech Industrial, Open Space Resource Conservation/Public, Public Facility, Light Industrial, and Open Space Private.

The City of Fremont Zoning Code describes permissible use of service facilities. Section 18.190.500 states that the erection, construction, alteration, or maintenance of service facilities by an operator shall be allowed in any district, subject to the following restrictions and requirements defined in the Land Use element (City of Fremont 2024).

Furthermore, the temporary staging areas or "construction yards," as defined by Section 18.190.080 of the Fremont Planning and Zoning Code, are permitted in any district, provided the requirements and restrictions of the Land Use element are met, which includes obtaining a zoning administrator permit (City of Fremont 2024).

The City of Fremont General Plan (City of Fremont 2011) includes the following policies and implementation action related to land use and planning:

> ***Policy 2-4.3: Corridors.*** Recognize the importance of Fremont's corridors in shaping the image and identity of the city. Encourage their development as "complete streets" that accommodate multiple modes of transportation while supporting a variety of land uses and utility infrastructure, including activities without an active street presence and uses which cannot be easily accommodated in centers. This policy is particularly applicable to Fremont Boulevard, but it applies to other thoroughfares as well. In general, corridors should be recognized as having distinct segments, punctuated by activity nodes around key intersections. Streetscape improvements, design guidelines, public art, land use and zoning standards, signage, undergrounding utilities, and road design changes can be used to create a stronger sense of identity.
>
> ***Policy 2-6.7: Environmentally Sensitive Use of Open Space.*** Regulate recreational and public facility development on lands designated as open space to conserve the overall character of such sites and minimize impacts on recreational activities, mature landscaping, and environmentally sensitive areas.
>
> > *Implementation 2-6.7.A: Infrastructure in Open Space*. Establish zoning standards which recognize the presence of infrastructure facilities such as radio and television towers within designated open space areas. Periodically update zoning standards for these areas in response to changing infrastructure needs, changes in energy and communication, and emerging technologies. There are some public facilities and utilities that cannot feasibly be located in urbanized areas, but that serve an essential public need. There are also infrastructure facilities where City regulations may be preempted by state and federal law. This implementation measure does not apply to

wastewater treatment facilities, landfills, and commercial power plants, which are prohibited uses in open space areas.

Policy 2-6.9: Environmentally Sensitive Use of Open Space. Strongly discourage the encroachment of development onto common open space areas within planned developments or other residential projects. Where feasible, shared open space areas in residential subdivisions shall be permanently restricted to open space uses through deed restrictions or other appropriate means.

City of Milpitas

Title XI of the Milpitas Municipal Code outlines the land use designations specified in the city of Milpitas' General Plan Land Use element (City of Milpitas 2021). As shown in Figure 3.11-2, the transmission line segment within the city of Milpitas is located on land zoned for Public Open Space. Furthermore, this segment is on land designated as Open Space, Parklands, and Habitat and Permanent Open Space. According to Section 39, XI-10-39.03-3 of the Milpitas Code of Ordinances, public utility facilities are permitted on land zoned as Public Open Space if they are approved by the Planning Commission.

The City of Milpitas General Plan (City of Milpitas 2021) includes the following goal and policies related to land use and planning that are relevant to the Project:

Goal LU-1: Accommodate a well-balanced mix of land uses that meets the diverse needs of Milpitas residents, businesses, and visitors with places to live, work, shop, be entertained and culturally enriched.

***Policy LU 1-5*:** Prohibit the conversion of designated Permanent Open Space lands to urban uses. This does not apply to the development or expansion of parks uses and amenities, which are considered open space uses.

***Policy LU 1-7*:** Recognize that the Land Use Map may be amended in accordance with State law in order to ensure that there is an adequate supply of commercial, business park, industrial, public facility, parks, residential, and other desired land uses to serve the City's needs.

City of San José

Title 20 of the San José Municipal Code outlines the San José Zoning Code, which is designed to promote and protect the public peace, health, safety, and general welfare (City of San José 2024a). As shown in Figure 3.11-3, portions of the Project within San José are located on lands zoned as Agricultural, Heavy Industrial, and Residence District. According to Tables 20-30, 20-110, and 20-50 within the San José Municipal Code, "Utility Facilities, excluding corporation yards, storage or repair yards and warehouses" require a conditional use permit for construction in lands zoned as Agriculture, Heavy Industrial, and Residence District, respectively.

The City of San José General Plan (City of San José 2024b) includes the following goals and policies related to land use and planning that are relevant to the Project:

Goal MS-16: Energy Security. Provide access to clean, renewable, and reliable energy for all San José residents and businesses.

***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.

Goal IN-2: Manage City resources efficiently in order to maintain existing infrastructure and facilities and avoid unnecessary replacement costs.

***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 City of San José Specific Plan for the Alviso Community (City of San José 1998) includes the following objectives and policies that are relevant to the portion of the Project alignment in San José, as this segment lies entirely within Alviso:

River Orientation Objective: Encourage appropriate land uses and development adjacent to the Guadalupe River.

***River Orientation Policy 1*:** Commercial land uses adjacent to the Guadalupe River should provide access to the waterway.

***River Orientation Policy 2*:** Development along the Guadalupe River should be designed to reflect and acknowledge the river environment by orienting seating areas, windows, decks, balconies, and open spaces to the river while orienting utility, parking, storage, and trash areas away from it.

Industrial/Non-Industrial Relationships Objective: Setbacks and buffers should be established to protect environmental resources (e.g., Coyote Creek) and "sensitive uses" (e.g., residential, day care, and school uses) from potential negative impacts of industrial use.

***Industrial/Non-Industrial Relationships Policy 2*:** The Light Industrial areas located north of State Street and adjacent to Coyote Creek should mitigate potential negative environmental impacts to nearby natural resources.

***Industrial/Non-Industrial Relationships Policy 3*:** Industrial uses located adjacent to or across the street from residential, school, or other sensitive uses should:

- Be sited and designed to avoid creating nuisances and/or hazards for nearby sensitive uses;
- Have trash and storage areas, loading areas, and access and circulation driveways located at the sides, rear and/or far side of industrial buildings as far away as possible from residential, park, or school uses;
- Use attractive walls and landscaping to screen parking, loading, storage, and other outdoor activity areas;
- Locate buildings on the site to minimize views into nearby residential buildings and yards;
- Locate any activity that potentially generates noise, dust, traffic, the use of hazardous materials, or has other nuisance or safety effects as far from sensitive uses as possible;
- Provide sufficient on-site parking to avoid street parking of vehicles; and
- Limit hours of operation for any activities that may be considered a nuisance.

Environmental Protection Objective: New development should contribute to the protection and preservation of Alviso's natural amenities.

***Environmental Protection Policy 1*:** All new parking, circulation, loading, outdoor storage, utility, and other similar activity areas must be located on paved surfaces with proper drainage to avoid potential pollutants from entering the groundwater, Guadalupe River, Coyote Creek, or San Francisco Bay.

***Environmental Protection Policy 2*:** Waterways or marshlands should never be used for storage, trash, or other environmentally adverse uses.

***Environmental Protection Policy 3*:** The riparian corridors adjacent to Coyote Creek and Guadalupe River should be preserved intact. Any development adjacent to the waterways should follow the City's Riparian Corridor policies.

Gateway Entrances Objective: Development located near Highway 237 along both sides of Gold Street, First Street, and Zanker Road should foster a "gateway" feel through building orientation, signs, trees, landscaping, and other features.

Village Area Design Objective: New development in the Alviso village area should be functional, attractive, and sensitive to the community's unique bayside history, character, and hydrology.

City of Santa Clara

Title 18 of the City of Santa Clara's zoning code serves as the primary tool for implementing the goals, policies, and actions of the General Plan and any applicable specific plan (City of Santa Clara 2024). As shown in Figure 3.11-4, the Project would be situated within lands zoned as Public or Quasi Public and Planned Development–Master Community. Table 2-16, *Special Purpose Zones Allowed Uses and Permit Requirements*, and Chapter 18.20, *Planned Development Zone*, of the zoning code outlines the development regulations and standards relevant to the Project. According to Table 2-16, a conditional use permit would be needed for a utility facility and

infrastructure project. Chapter 18.20 of the zoning code defers permissible land use activities to the land use designations in the General Plan for areas zoned for Planned Development.

The City of Santa Clara General Plan (City of Santa Clara 2014) includes the following goals and policies related to land use and planning that are relevant to the Project:

> **Goal 5.3.1-P7:** Work with State and regional agencies to ensure that their plans and projects are consistent with the City's General Plan.
>
> > ***Policy 5.3.1-P15*:** Require new and major public infrastructure projects to include adequate rights of-way to accommodate all modes of transportation.
> >
> > ***Policy 5.3.1-P28*:** Encourage undergrounding of new utility lines and utility equipment throughout the City.

3.11.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the project by LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.11.3.1 LSPGC Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measure (APM) within its portion of the Project pertaining to land use and planning. The analysis assumes that the following APMs would be implemented by LSPGC as part of its portion of work for the Project.

- **APM TRA-1: Traffic Control Plan**. LSPGC shall prepare a TCP [traffic control plan] 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. A copy of the TCP shall be provided to CPUC for recordkeeping.

3.11.3.2 PG&E Best Management Practices and Field Protocols

PG&E has proposed no best management practices or field protocols pertaining to land use and planning within PG&E's portion of the Project.

3.11.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining land use and planning within SVP's portion of the Project.

3.11.4 Significance Criteria

According to Appendix G of the CEQA *Guidelines*, except as provided in Public Resources Code Section 21099, the Project would result in significant land use and planning impacts 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 impact analysis considers the land use impacts associated with the construction and operation and maintenance of the Project. This analysis evaluates the Project site's location relative to established communities and the nature of the proposed use. This analysis also considers 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.

3.11.5.2 Impact Assessment

Criterion a) Whether the Project would physically divide an established community.

During operation, LSPGC would remotely monitor the Project from its off-site control center, and local maintenance staff would perform routine maintenance and emergency response. Furthermore, the majority of the Project would be underground, and even where above ground, the transmission line would not impede travel between communities once constructed. The public would not have access to the overhead segment within the San José–Santa Clara Regional

Wastewater Facility. Therefore, Project operation would not physically divide an established community, and there would be no impact from operation and maintenance. (*No Impact*)

Impact 3.11-1: Project construction would not physically divide an established community. (*Less than Significant with Mitigation*)

Construction

As discussed in Section 3.11.1, *Environmental Setting*, the Project would be located within the cities of Fremont, Milpitas, San José, and Santa Clara. The Project includes the construction of underground and overhead transmission lines between the PG&E Newark 230-kilovolt (kV) Substation in the city of Fremont and the SVP Northern Receiving Station (NRS) 230 kV Substation in the city of Santa Clara. The underground segments of the transmission line would be constructed along or within public roads. One overhead segment would exit the PG&E Newark 230 kV Substation on PG&E-owned property, and another would be situated on the San José–Santa Clara Regional Wastewater Facility property.

The public currently does not have access to the PG&E Newark 230 kV Substation or the SVP NRS 230 kV Substation, nor to the San José–Santa Clara Regional Wastewater Facility. Therefore, the construction of the substations and overhead segments would not affect public accessibility. However, as discussed in Section 2.8.8, *Public Safety and Traffic Control*, temporary closures of sidewalks, lanes, roads, trails, paths, or driveways would be necessary to facilitate the underground transmission line construction. These temporary closures, with accompanying restrictions and detours, would be outlined in the traffic control plans that LSPGC would develop in consultation with the applicable local agencies in accordance with **APM TRA-1: Traffic Control Plan** and **Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan**. The traffic control plans would alleviate issues of connectivity by guiding traffic more efficiently. Traffic control plans and other transportation impacts are discussed further in Section 3.17, *Transportation*. Furthermore, the temporary nature of these closures would help ensure that the construction of the transmission line would not significantly or permanently physically divide an established community. Therefore, the impact would be mitigated to a **less-than-significant** level.

Mitigation: Implement Mitigation Measure 3.17-2a.

Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan

LSPGC shall coordinate with Project proponents, contractors, and local agencies, as applicable, for other construction projects in the Project's vicinity that may temporally overlap with Project construction, including, but not limited to, 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 the Project's traffic control plan with other traffic control plans prepared for nearby projects. The other projects' traffic control plans shall be cited in the Project's traffic control plan, as applicable.

- 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:
  - Full and partial roadway closures.
  - Circulation and detour plans to include 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 at least 30 days before the start of construction.

Significance after Mitigation: Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would ensure that impacts related to this criterion would be less than significant.

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 3.11.1, *Environmental 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 informational purposes only. (*No Impact*)

Fremont General Plan and Zoning Ordinance

As described in Table 3.11-1, the PG&E Newark 230 kV Substation is located east of Weber Road and zoned as Industrial General. The Newark to NRS 230 kV AC transmission line would exit the PG&E Newark 230 kV Substation, travel northeast along Weber Road to Boyce Road, and continue straight onto Cushing Parkway. Eventually, the transmission line would turn right, heading south on Fremont Boulevard until it exits the city of Fremont and enters the city of San José.

Four staging areas would be within the city of Fremont. Staging Area 1 would be located north of the PG&E Newark 230 kV Substation off of Boyce Road. Staging Area 2 would be located off Weber Road, adjacent to the transmission line and the PG&E Newark 230 kV Substation. Staging Area 3 would be located northeast of the PG&E Newark 230 kV Substation, adjacent to Boyce

Road. Lastly, Staging Area 4 would be adjacent to Fremont Boulevard, just after the transmission line turns onto Fremont Boulevard. Section 18.190.080 of the Fremont Planning and Zoning Code permits construction yards in any district, provided the applicable requirements and restrictions are met, such as obtaining a zoning administrator permit.

The PG&E Newark 230 kV Substation and portions of the Newark to NRS 230 kV AC transmission line would be located within Industrial General, Commercial Residential, Planned District, Open Space, Tech Industrial District, and Public Facility zones. Section 18.190.500 of the Fremont Planning and Zoning Code allows for the construction of electrical utilities within any district, as long as the facilities are along public streets. Since the Project alignment within Fremont follows public streets, it would be permitted.

Milpitas General Plan and Code of Ordinances

When the Newark to NRS 230 kV AC transmission line enters the city of Milpitas, the transmission line would be overhead above a road serving the San José–Santa Clara Regional Wastewater Facility. This area is zoned as Park Open Space. According to Section 39, XI-10-39.03-3, *Conditional Uses*, of the city of Milpitas zoning code, public utility facilities are permitted if they are approved by the Planning Commission.

San José General Plan and Zoning Code

The Newark to NRS 230 kV AC transmission line would enter San José along McCarthy Boulevard before traversing Milpitas for a short distance. The transmission line would then reenter San José overhead above the San José–Santa Clara Regional Wastewater Facility's drying ponds toward Los Esteros Road. The line would then head west on Los Esteros Road, merge onto Grand Boulevard, and then continue onto Disk Drive. It would subsequently follow Nortech Parkway, travel across parking lots to cross under the Guadelupe River, and run along State Route 237 before entering Santa Clara.

Eight staging areas would be in San José. Staging areas 5 and 6 would be on either side of McCarthy Boulevard. Staging Area 7 would be located along Los Esteros Road, next to the GreenWaste Renewable Energy Digestion Facility. Staging Area 8 would be next to the Los Esteros Critical Energy Center, bounded by State Route 237 and Zanker Road. Staging Area 9 would be along Los Esteros Road. Staging Area 10 would be located north of a golf range along North First Street, and Staging Area 11 would be next to it. Staging Area 12 would be south of Staging Area 11, south of the Newark to NRS 230 kV AC transmission line. These staging areas would be located within Agricultural, Light Industrial, Residential District, and Combined Industrial/Commercial District zones.

The Newark to NRS 230 kV AC transmission line would traverse areas zoned as Agriculture, Heavy Industrial, and Residential District zones along its alignment. Each of these zones would require a Conditional Use Permit for the utility infrastructure.

Santa Clara General Plan and Zoning Code

The Newark to NRS 230 kV AC transmission line would enter the city of Santa Clara on Lafayette Street and travel south until it reaches the SVP NRS 230 kV Substation, just south of

Levi's Stadium. The transmission line would be on land zoned as Public/Quasi Public and Planned Development Master Community. According to Table 2-16 of the City of Santa Clara Zoning Code, utility and facility infrastructure in a Public/Quasi-Public zone require a conditional use permit. Additionally, Section 18.20.030.A of the City of Santa Clara Zoning Code states that development standards within the Planned Development zone must align with the General Plan land use designation. The land use designation for the segments of the Project within the Planned Development zone are Park/Open Space and Urban Center/Entertainment District. The portion of the transmission line that would pass through these designations would be underground, making it permissible with these land use designations. The Project would not conflict with the applicable zoning regulations and general plan land use designations. The Project would comply with the General Plan land use designations of Park/Open Space and Urban Center/Entertainment District by adhering to the policies outlined in Chapter 5.9.1, Parks, Open Spaces, and Recreation Policies, and 5.3.3, Commercial Land Use Policies.

Since 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.

3.11.6 Cumulative Effects Analysis

3.11.6.1 Criterion a)

As discussed above, Project operations 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 operations. (*No Impact*)

Impact C.3.11-1: Project construction, in combination with the cumulative projects, would not physically divide an established community. (*Less than Significant with Mitigation*)

Project construction would require temporary closures of sidewalks, lanes, roads, trails, paths, or driveways to facilitate the underground transmission line. The cumulative projects may also require temporary closures of the same facilities during construction, which, in combination with the Project, could physically divide an established community by temporarily impeding travel between different parts of a community. However, the Project and the cumulative projects would be subject to consistency reviews with applicable local jurisdictions' policies and regulations, notably those that relate to land use and planning. These consistency reviews would confirm how the projects interact with policies and regulations that govern land use and planning, and if needed, provide recommendations for measures to avoid physically dividing an established community.

Further, construction, by nature, is temporary, and upon completion of the Project relative to the cumulative projects, any temporary effects that may physically divide an established community would cease. LSPGC would also implement APM TRA-1 and Mitigation Measure 3.17-2a, which

would involve preparation of a traffic control plan that considers temporary lane closures, with accompanying restrictions and detours. These measures would help ensure that the construction of the transmission line would not significantly or permanently divide an established community. For these reasons, Project construction, in combination with the cumulative projects, would not physically divide an established community, and this cumulative impact would be mitigated to a **less-than-significant** level.

Mitigation: Implement Mitigation Measure 3.17-2a.

Significance after Mitigation: With the implementation of APM TRA-1 and Mitigation Measure 3.17-2a, cumulative impacts related to this criterion would be reduced to a less-than-significant level.

3.11.6.2 Criterion b)

As discussed in Section 3.11.5, no local land 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, and there would be no cumulative impact. (*No Impact*)

3.11.7 References

City of Fremont. 2011. *City of Fremont General Plan.* Adopted December 2011. Available: https://www.fremont.gov/government/departments/community-development/planning-building-permit-services/plans-maps-guidelines/general-plan. Accessed November 12, 2024.

City of Fremont. 2024. Fremont Municipal Code. Available: https://www.codepublishing.com/CA/Fremont/html/Fremont18/Fremont18190.html#18.190.500. Accessed February 18, 2025.

City of Milpitas. 2021. Milpitas, California Municode Codification. Available: https://library.municode.com/ca/milpitas/codes/code_of_ordinances?nodeId=TITXIZOPLAN_CH10ZO. Accessed January 9, 2025.

City of Santa Clara. 1998. *Alviso Master Plan: A Specific Plan for the Alviso Community.* December 1998. Available: https://www.sanjoseca.gov/home/showpublisheddocument/16053/636681597543870000. Accessed January 9, 2025.

City of Santa Clara. 2014. *City of Santa Clara 2010-2035 General Plan.* Adopted on November 16, 2010; updated on December 9, 2014. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed November 12, 2024.

City of Santa Clara. 2024. Title 18 Zoning Code. Accessed January 9, 2025.

City of San José. 1998. *Alviso Master Plan: A Specific Plan for the Alviso Community.* December 1998. Available: https://www.sanjoseca.gov/home/showpublisheddocument/16053/636681597543870000. Accessed January 9, 2025.

City of San José. 2024a. San José, California Municode Codification. Available https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT20ZO_CH20.10GEPRZODI. Accessed January 9, 2025.

City of San José. 2024b. *Envision San José 2040 General Plan*. Adopted November 1, 2011; amended on October 24, 2024. Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan. Accessed November 12, 2024.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

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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 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 in this section is based in part on a review of the California Department of Conservation, the United States Geological Survey, and information provided in 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 B***, 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 is in the southern portion of the San Francisco Bay Area, within the Coast Ranges Geomorphic Province, which is characterized by the north–west trending mountain ranges and valleys (CGS 2002). The Project is located in the Cities of Fremont, Milpitas, San José, and Santa Clara within Alameda and Santa Clara counties. Most of the Project would be located in developed and built-up areas. The Coast Ranges Geomorphic Province was historically mined for cinnabar from the late 1820's to 1976. Cinnabar is the host rock for most of the mercury ore in the New Almaden Mining District in southwestern San José (CGS 2002; USGS 2002).

State Classified Mineral Resources

In accordance with the Surface Mining and Reclamation Act of 1975, the California Department of Conservation, Division of Mines and Geology, currently known as the California Geological Survey, has mapped the state's non-fuel mineral resources. This mapping identifies areas where economically significant mineral deposits are either present or likely to occur based on the best available scientific data. These resources have been mapped using the California Mineral Land Classification System, which includes the following six Mineral Resource Zones (MRZs):

- **MRZ-1:** An area where adequate information indicates that no significant mineral deposits[1] are present, or where little likelihood exists for their presence.
- **MRZ-2a:** An area where adequate information indicates that significant measured or indicated mineral reserves are present.
- **MRZ-2b:** An area where geologic information indicates that significant inferred resources or demonstrated subeconomic resources are present.

[1] Significant mineral deposits are deposits that are marketable under present technological and economic conditions, or conditions that can be estimated to exist in the foreseeable future, containing more than $5 million worth of aggregate material in 1978-equivalent dollars.

- **MRZ-3a:** An area likely to contain undiscovered mineral deposits similar to known deposits in the same producing district or region (hypothetical resources).
- **MRZ-3b:** An area considered to be a favorable geologic environment for mineral resource occurrences, but where no mineral discoveries have been made in the region (speculative resources).
- **MRZ-4:** An area where geological information neither confirms nor denies the presence or absence of mineral resources.

The California Geologic Energy Management Division oversees the drilling, operation, maintenance, and plugging and abandonment of oil, natural gas, and geothermal wells in California, and tracks all known oil and gas wells.

According to the United States Geological Survey Mineral Resources Data System, no mineral resources are within 1 mile of the Project. Furthermore, the California Geologic Energy Management Division Well Finder service indicates that no oil wells are within 1 mile of the Project (DOC 2024). Below, **Table 3.12-1**, *Project Components in Mineral Resource Zones*, summarizes the MRZs that the Project components would cross through in the cities of Fremont, Milpitas, San José, and Santa Clara.

TABLE 3.12-1
PROJECT COMPONENTS IN MINERAL RESOURCE ZONES

Project Component	Mineral Resource Zone Designation	Municipality
PG&E Newark 230 kV Substation	MRZ-3a	City of Fremont
Newark to NRS 230 kV AC Transmission Line	MRZ-1, MRZ-2a, MRZ-3a, Sector K-1[2]	Cities of Fremont, San José, Milpitas, Santa Clara
SVP NRS 230 kV Substation	MRZ-1	City of Santa Clara
Staging Area 1	MRZ-3a	City of Fremont
Staging Area 2	MRZ-2a, MRZ-3a	City of Fremont
Staging Area 3	MRZ-1	City of Fremont
Staging Area 4	MRZ-1	City of San José
Staging Area 5	MRZ-1	City of San José
Staging Area 6	MRZ-1	City of San José
Staging Area 7	MRZ-1	City of San José
Staging Area 8	MRZ-1	City of San José
Staging Area 9	MRZ-1	City of San José
Staging Area 10	MRZ-1	City of San José
Staging Area 11	MRZ-1	City of San José

NOTES:
kV = kilovolt; MRZ = Mineral Resource Zones; NRS = Northern Receiving Station; AC = alternating current; SVP = Silicon Valley Power.
SOURCES: Stinson et al. 1982a, 1982b

[2] Sector-K is an alluvial deposit and a seasonal wetland under the jurisdiction of the U.S. Army Corps of Engineers (DOC 1987; City of Fremont 2011).

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 coal mining and reclamation activities. It also established mandatory, uniform standards for these activities on federal and state lands, including a requirement to minimize adverse impacts on fish, wildlife, and related environmental values. Additionally, it created the Abandoned Mine Reclamation Fund, which is used to reclaim and restore land and water resources 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 accordance with the law, the State has established the California Mineral Land Classification System to identify and protect mineral resources in areas 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, metallic and rare minerals, and nonfluid mineral fuels.

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. As such, the following local policies and ordinances pertaining to mineral resources that would otherwise be relevant to the Project and alternatives are described below for informational purposes only.

Fremont General Plan

The City of Fremont General Plan (City of Fremont 2011) includes the following goal, policy, and implementing actions related to mineral resources that are relevant to the Project:

> **Goal 7-5: Mineral Resources.** State-designated and regionally significant mineral resources identified and protected where feasible.
>
> > ***Policy 7-5.1: Protect Mineral Resources*.** Protect identified state designated mineral resources from incompatible development whenever feasible consistent with the City's long range development plans.

Implementation 7-5.1.B: Evaluate Impact of Development Near Mineral Resources. Evaluate impacts of any development project proposed within approximately 100 feet of an identified mineral resource during the development and environmental review process.

Implementation 7-5.1.C: Open Space Land Use Designations. Retain existing and designate new open space land use designations when appropriate on land containing identified significant mineral resources.

Implementation 7-5.1.D: Evaluate Proposed Land use Changes. Evaluate and consider the impacts of any proposed change in land use designation for a parcel of land containing regionally significant mineral resources.

Milpitas General Plan

The City of Milpitas General Plan (City of Milpitas 2021) includes the following goal and policies related to mineral resources that are relevant to the Project:

Goal CON-6: Provide for extraction of minerals to help meet future regional needs in an environmentally sensitive manner.

***Policy CON 6-1*:** Manage aggregate resources to ensure that extraction results in the fewest environmental impacts.

***Policy CON 6-2*:** Require preparation and assured implementation of adequate reclamation of mined lands as a condition of approval for mining.

***Policy CON 6-3*:** Permit new quarries only if they are:

- Compatible with surrounding land uses;
- Not environmentally disruptive; and
- Not visible from the Valley Floor.

San José General Plan

The City of San José's 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 [Surface Mining and Reclamation Act]-designated mineral deposits wherever economically feasible.

***Policy ER-11.4*:** Carefully regulate the quarrying of commercially usable resources, including sand and gravel, to mitigate potential environmental effects such as dust, noise and erosion.

Santa Clara General Plan

The City of Santa Clara General Plan (Santa Clara 2014) does not contain goals or policies relevant to mineral resources.

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 LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for the portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.12.3.1 LSPGC Applicant-Proposed Measures

LSPGC has proposed no Applicant-proposed measures (APMs) pertaining to mineral resources within LSPGC's portion of the Project.

3.12.3.2 PG&E Best Management Practices and Field Protocols

PG&E has proposed no best management practices or field protocols pertaining to mineral resources within PG&E's portion of the Project.

3.12.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to mineral resources within SVP's portion of the Project.

3.12.4 Significance Criteria

According to Appendix G of the CEQA *Guidelines*, except as provided in Public Resources Code Section 21099, the Project would result in significant mineral resources impacts 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 the Project's impacts on mineral resources, the locations of Project components were compared with maps of known valuable mineral resources at the local, regional, and state jurisdictions to determine whether Project components would occur on or otherwise limit access to these resources.

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.

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 Impact*)

No portion of the Project alignment or any staging areas would be within 1 mile of any active mining claims or operations. Furthermore, the Project would not be within 1 mile of any active or plugged oil wells.

The Project would cross into MRZs throughout the Project alignment, some of which may contain mineral resources. The northernmost section of the Project in the city of Fremont crosses into zones marked as MRZ-2a and MRZ-3a. As stated above, MRZ-2a is an area where mineral reserves are present, while MRZ-3a is an area likely to contain undiscovered mineral deposits. Additionally, the Project would also pass through the alluvial deposit area of Sector-K. The remaining portions of the Project alignment in the city of Fremont and the other cities fall within MRZ-1, which is defined as an area where adequate information indicates that no significant mineral deposits are present (Stinson et al. 1982a, 1982b). The Project alignment would only traverse MRZ 2-a and MRZ 3-a in the city of Fremont and would not pass through any mineral resources zones in the cities of San José, Milpitas, or Santa Clara.

Although this map designates MRZs, the current conditions do not support mining, as this area is primarily built-up urban and industrial land. Furthermore, the current land uses are incompatible with mining activities. The portions of the Project that would pass through MRZ 2-a and MRZ 3-a in the city of Fremont are built up, paved, or along roads, making it unlikely that mineral resources would be pursued. Additionally, most of the material substrate in this area is bay mud, which is not considered to be a mining resource. The remaining parts of the alignment fall within MRZ-1, which means mineral deposits would not be present in those areas. Therefore, the Project would have no impact on mineral resources.

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.

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. (*No Impact*)

As stated above, the Project would cross into MRZs in the city of Fremont; however, the current urban and built-up conditions in these locations would not support mining, as Project components would primarily be in paved areas or along existing roads. Therefore, the Project would not result in the loss of mineral resources because it would not be in areas that would likely be mined in the future. As stated above, the portions of the Project in the cities of San José, Milpitas, and Santa Clara would fall within MRZ-1, which means mineral deposits would not be present in those areas. Furthermore, the Project would not be within 1 mile of any active mining claims or operations, so it would not have an effect on those resources. Therefore, there would be no impact on mineral resources.

3.12.6 Cumulative Effects Analysis

Because the Project would have no impact on mineral resources, the Project could not cause or contribute to any cumulative impact related to mineral resources. Therefore, there would be no incremental impact that would be cumulatively considerable, and no cumulative impact on mineral resources would occur associated with the Project. (*No Impact*)

3.12.7 References

CGS (California Geological Survey). 2002. *California Geomorphic Provinces*. Available: https://www.conservation.ca.gov/cgs/documents/publications/cgs-notes/CGS-Note-36.pdf. Accessed November 12, 2024.

City of Fremont. 2011. *City of Fremont General Plan.* Adopted December 2011. Available: https://www.fremont.gov/government/departments/community-development/planning-building-permit-services/plans-maps-guidelines/general-plan. Accessed November 12, 2024.

City of Milpitas. 2021. *General Plan 2040*. Adopted March 9, 2021. Available: https://www.milpitas.gov/370/Milpitas-2040-General-Plan. Accessed November 12, 2024.

City of San José. 2024. *Envision San José 2040 General Plan*. Adopted November 1, 2011; amended on October 24, 2024. Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan. Accessed November 12, 2024.

City of Santa Clara. 2014. *City of Santa Clara 2010-2035 General Plan.* Adopted on November 16, 2010; updated on December 9, 2014. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed November 12, 2024.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

DOC (California Department of Conservation). 1987. *Designation of Regionally Significant Construction Aggregate Resource Areas in the South San Francisco Bay, North San Francisco Bay, Monterey Bay Production-Consumption Regions.* Available: https://www.conservation.ca.gov/smgb/reports/Documents/Designation_Reports/SMARA%20Designation%20Report%20No.%207.pdf. Accessed November 12, 2024.

DOC (California Department of Conservation). 2024. Well Finder. Available: https://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx. Accessed November 18, 2024.

LSPGC (LS Power Grid California). 2025. Application of LS Power Grid California, LLC (U-247-E) for a Certificate of Public Convenience and Necessity Authorizing Construction of the Power the South Bay Project. Amended February 28, 2025.

Stinson, M.C., M.W. Manson, and J.J. Plappert. 1982a. *Mineral Land Classification Map Aggregate Resources Only.* Available: https://maps.conservation.ca.gov/mineralresources/. Accessed November 12, 2024.

Stinson, M.C., M.W. Manson, and J.J. Plappert. 1982b. *Mineral Land Classification Map Aggregate Resources Only.* Available: https://maps.conservation.ca.gov/mineralresources/. Accessed November 12, 2024.

USGS (United States Geological Survey). 2002. *Rocks and Geology in the San Francisco Bay Region.* Available: https://pubs.usgs.gov/bul/2195/b2195.pdf. Accessed November 12, 2024.

3.13 Noise and Vibration

This section evaluates the impacts of the Project on noise and vibration. It includes information about the physical 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 information and analysis presented are based in part on the noise and vibration analysis from the May 2024 Proponent's Environmental Assessment prepared by LSA for LSPGC and as supplemented by Environmental Science Associates (ESA) (see **Appendix E**, *Noise*).

The CPUC received scoping comments from the California Department of Transportation (Caltrans) pertaining to noise and vibration. Caltrans suggested that mitigation should be identified for potentially significant impacts from construction and noise. Copies of all scoping letters are provided in **Appendix B**, *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 various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, "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, which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequencies spanning 20–20,000 hertz. 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, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes frequencies below 1,000 hertz and above 5,000 hertz in a manner corresponding to the human ear's decreased sensitivity to low and high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as *A-weighting* and is expressed in units of A-weighted decibels (dBA). All sound pressure levels 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 specified time period. 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 with respect to the contributing sound sources of the noise environment. Noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. Background noise levels change throughout a typical day, but they do so gradually, corresponding with the addition and subtraction of distant noise sources and atmospheric conditions. The addition of short-duration single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens) makes 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. Therefore, noise exposure must be measured over a time period to legitimately characterize the noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. Different noise descriptors discussed in this analysis are summarized below:

L_{eq}: The *equivalent sound level* is used to describe noise over a specified time period, 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 time period (i.e., the average noise exposure level for the given time period).

L_{dn}: The *day-night noise level* is the energy average of the A-weighted sound levels occurring during a 24-hour period, which accounts for the greater sensitivity of most people 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 A-weighted decibels (dBA) to consider the greater annoyance of nighttime noises. Also referred to as the "day-night average noise level" (DNL).

CNEL: The *community noise equivalent level* is a 24-hour L_{eq} that adds a 5-dBA penalty to noise occurring during the evening hours from 7:00 p.m. to 10:00 p.m. and a 10-dBA penalty between 10:00 p.m. and 7:00 a.m. for the increased sensitivity to noise events that occur during the quiet late-evening and nighttime periods.

L_{max}: This descriptor refers to the instantaneous maximum noise level measured during a period of interest.

Effects of Noise on People

The effects of noise on people fall into the following 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. A wide variation exists in individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way to predict a human reaction to a new noise environment is to compare the new noise 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 would be judged by those hearing it. Regarding increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3-dBA change is considered a barely perceivable difference when the change in noise is perceived but does not cause a human response.
- A change of at least 5 dBA is required before any noticeable change in human response would be 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 has marks on it corresponding to equal quantities of distance. One way of expressing this is to say that the ratio of successive intervals is equal to 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; rather, they combine logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. However, where ambient noise levels are high in comparison to a new noise source, there will be a small change in noise levels. For example, when a 70-dBA ambient noise level is combined with a 60-dBA noise source, the resulting noise level equals 70.4 dBA.

Nighttime noise has a higher potential to affect sleep. Noise can make it difficult to fall asleep, can create momentary disturbances of natural sleep patterns by causing shifts from deep to lighter stages, and can cause people to awaken.

Scientists have attempted to determine whether high noise levels can adversely affect human health apart from auditory damage. These research efforts have covered a broad range of potential impacts from cardiovascular response from fetal weight to mortality. Although a relationship between noise and health effects seems plausible, it has yet to be convincingly demonstrated—that is, shown in a manner that can be repeated by other researchers while yielding similar results. In a review of 30 studies conducted worldwide between 1993 and 1998, a team of international researchers concluded that, although some findings suggest that noise can affect health, improved research concepts and methods are needed to verify or discredit such a relationship. The team of international researchers called for more study of the numerous environmental and behavioral factors that can confound, mediate, or moderate survey findings. Until science refines the research process, a direct link between a single source noise exposure and non-auditory health effects remains to be demonstrated (Lercher et al. 1998).

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 a line source. Point sources of noise, including stationary mobile sources such as idling vehicles or on-site construction equipment, attenuate (lessen) at a rate of 6.0 dBA per doubling of distance from the source. In many cases, noise attenuation from a point source increases to 7.5 dBA for each doubling of distance as a result of ground absorption and reflective wave canceling. These factors are referred to collectively as *excess ground attenuation*. The basic geometric spreading loss rate is used where the ground surface between a noise source and a receiver is reflective, such as parking lots or a smooth body of water. The excess ground attenuation rate (7.5 dBA per doubling of distance) is used where the ground surface is absorptive, such as soft dirt, grass, or scattered bushes and trees.

Widely distributed noises, such as from a street with moving vehicles (a *line source*), would typically attenuate at a lower rate of approximately 3.0 dBA for each doubling of distance between the source and the receiver. If the ground surface between source and receiver is absorptive rather than reflective, the nominal rate increases to 4.5 dBA for each doubling of distance. Atmospheric effects, such as wind and temperature gradients, can also influence noise attenuation rates from both line and point sources of noise. However, unlike ground attenuation, atmospheric effects are constantly changing and difficult to predict.

Trees and vegetation, buildings, and barriers reduce the noise level that would otherwise occur at a given receptor distance. However, for a 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 upon the size and spacing of the intervening structures and site geometry. Similar to vegetation strips discussed above, noise barriers such as natural topography and soundwalls reduce noise by blocking the line of sight between source and receiver. Generally, a noise barrier that breaks the line of sight between a source and receiver will provide a noise reduction of at least 5 dBA.

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 amplitude* is most frequently used to describe the effect of vibration on the human body. The root mean square amplitude is defined as the average of the squared amplitude of the signal. Decibel notation in vibration decibels (VdB) is commonly used to measure root mean square. The decibel notation acts to compress the range of numbers required to describe vibration (FTA 2018). Typically, groundborne vibration generated by human activity 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 earthmoving equipment. The effects of groundborne vibration include movement of the 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).

Existing Ambient Noise Environment

The existing PG&E Newark 230-kilovolt (kV) Substation is surrounded by parking lots and industrial uses to the north and south, PG&E operations to the east, and undeveloped land to the west. Existing noise sources in the area include vehicles on roadways and the operation of industrial uses.

The existing SVP Northern Receiving Station (NRS) 230 kV Substation is surrounded by Levi's Stadium and a training facility to the north, the city of Santa Clara's water treatment facilities to the west, and residential developments to the south and east. Existing noise sources in the area include vehicles on roadways, railroad operations, aircraft overflights, events at Levi's Stadium, and the operation of commercial and industrial uses.

To evaluate existing ambient noise at the Project site, LSPGC had a noise measurement collected near the PG&E Newark 230 kV Substation and the SVP NRS 230 kV Substation and along the Newark to NRS 230 kV alternating current (AC) transmission line, as shown in **Figure 3.13-1**, *Noise Monitoring Locations*. Ambient long-term (24-hour) and short-term (15-minute) noise measurement data were collected on December 12–13, 2023, to characterize noise conditions in the Project vicinity. Noise results for the long-term and short-term monitoring locations are summarized in **Table 3.13-1**, *Existing Noise Level Measurements—Long-Term*, and **Table 3.13-2**, *Existing Noise Level Measurements—Short-Term*, respectively. Primary known noise sources in the vicinity of the noise monitoring locations are vehicle traffic along Boyce Road, Automall Parkway, Grand Boulevard, Lafayette Street, and other local roadways. Additionally, noise sources may include railroad activity adjacent to State Route 237, aircraft noise from San José Mineta International Airport, and local industrial and residential activities.

3.13.1.2 Sensitive Receptors

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication and can cause stress and hearing loss. Given these effects, some land uses are considered more sensitive to ambient noise levels than others. In general, residences, schools, hotels, hospitals, and nursing homes are considered to be the most sensitive to noise. Places such as churches, libraries, and cemeteries, where people tend to pray, study, or contemplate, are also sensitive to noise. Commercial and industrial uses are considered the least sensitive to noise. Below are descriptions of the sensitive receptors near the Project site and alignments. The summaries of sensitive receptors provided below are not intended to list every specific individual sensitive receptor but to provide an overview of the types of uses in the Project vicinity and the alternative sites and alignments.

SOURCE: LSA, 2024; ESA, 2024

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Figure 3.13-1
Noise Monitoring Locations

TABLE 3.13-1
EXISTING NOISE LEVEL MEASUREMENTS—LONG-TERM

Location Number	Location Description	Noise Levels (dBA Leq)		Average Daily Noise Levels (dBA L_{dn})	Primary Noise Sources
		Daytime	Nighttime		
LT-1	On a tree in the vacant land located at the southwest corner of Boyce Road and Automall Parkway, approximately 75 feet from the Boyce Road centerline and 150 feet from the Automall Parkway centerline.	63–68	57–66	69	Traffic on Boyce Road and Automall Parkway.
LT-2	On the first tree opposite of the residence at Grand Boulevard, approximately 25 feet away from the Grand Boulevard centerline.	52–69	42–67	67	Traffic on Grand Boulevard and Spreckles Avenue; aircraft noise.
LT-3	On a light pole with a sign, east of Lafayette Street, approximately 55 feet away from the Lafayette Street centerline.	70–77	55–71	73	Traffic on Lafayette Street; aircraft noise; train passby.

NOTES:
dBA = A-weighted decibels; L_{dn} = day-night noise level; L_{eq} = equivalent continuous sound level; LT = long-term
1. Daytime Noise Levels = noise levels during the hours of 7:00 a.m. to 10:00 p.m.
2. Nighttime Noise Levels = noise levels during the hours of 10:00 p.m. to 7:00 a.m.
SOURCE: Data compiled by LSA in 2023 (see Appendix E).

TABLE 3.13-2
EXISTING NOISE LEVEL MEASUREMENTS—SHORT-TERM

Location Number	Location Description	Date/Time	Average Noise Level (L_{eq})	Primary Noise Sources
ST-1	Northeast corner of Spreckles Avenue and Grand Boulevard, approximately 35 feet from the Grand Boulevard centerline and 50 feet from the Spreckles Avenue centerline.	12/12/2023 10:52 a.m.–11:07 a.m.	65	Traffic on Grand Avenue, mainly trucks; aircraft noise.
ST-2	Parking lot of Xperi, third parking spot from the west (near park), south of the residence on Channel Drive, approximately 550 feet from the State Route 237 centerline.	12/12/2023 11:30 a.m.–11:45 a.m.	56	Traffic on State Route 237.
ST-3	East of Lafayette Street, opposite the residence at 2355 Avenida de Guadalupe, approximately 75 feet away from the Lafayette Street centerline.	12/12/2023 1:10 p.m.–1:25 p.m.	62	Traffic on Lafayette and Tasman Drive; aircraft noise; train passby.

NOTES:
L_{eq} = equivalent continuous sound level; ST = short-term
SOURCE: Data compiled by LSA in 2023 (see Appendix E).

No receptors are within 1,000 feet of the proposed Newark to NRS 230 kV AC transmission line north of the city of San José's Recycled Water Facility. The nearest sensitive receptors to the Newark to NRS 230 kV AC transmission line, located west of the Recycled Water Facility, are residential uses approximately 20 feet from the transmission line on Grand Boulevard in the city of San José and on Lafayette Street near the existing SVP NRS 230 kV Substation. The nearest sensitive receptors to the existing SVP NRS 230 kV Substation are residences 82 feet to the south.

3.13.1.3 Existing Airport and Airstrips

The closest airports to the Project are the San José Mineta International Airport, approximately 2.2 miles north of the proposed SVP NRS 230 kV Substation modifications; Moffett Federal Airfield, 4 miles west; and the Reid-Hillview County Airport, 29 miles southeast.

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 has published noise guidelines to protect public health and welfare (USEPA 1974). These guidelines recommend an L_{dn} of 55 dBA to protect the public from the effect of broadband environmental noise outdoors in residential areas, farms, other outdoor areas where people spend widely varying amounts of time, and other places where quiet is a basis for use (USEPA 1974).

Federal Transit Administration Criteria

Although Federal Transit Administration (FTA) standards are usually intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) are routinely used for projects under review by local jurisdictions that have not adopted their own vibration impact standards. FTA and the Federal Railroad Administration have published guidelines for assessing the impacts of groundborne vibration 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. 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.

Under 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. Occupational Safety and Health Administration adopted regulations (Code of Federal Regulations Title 29, Section 1910.95) designed to protect workers against the effects of occupational noise exposure. These regulations establish limits on noise exposure levels as a function of the amount of time during which the worker is exposed, as shown in **Table 3.13-4**, *OSHA-Permissible 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]).

No federal laws govern community noise; however, the U.S. Environmental Protection Agency has published noise guidelines (USEPA 1974). These guidelines recommend a DNL of 55 dBA to protect the public from the effect of broadband environmental noise outdoors in residential areas, farms, other outdoor areas where people spend widely varying amounts of time, and other places where quiet is a basis for use (USEPA 1974).

1 FTA defines “infrequent events” as fewer than 30 vibration events of the same kind per day.
2 FTA defines “occasional events” as between 30 and 70 vibration events of the same source per day.

TABLE 3.13-4
OSHA-PERMISSIBLE 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 = Occupational Safety and Health Administration; USEPA = U.S. Environmental Protection Agency
SOURCE: USEPA 1974

3.13.2.2 State

Government Code Section 65302 encourages counties and cities to implement a noise element as part of their general plans. In addition, the California Governor's Office of Land Use and Climate Innovation (formerly known as the Governor's Office of Planning and Research) has developed guidelines for preparing noise elements, which include recommendations for evaluating the compatibility of various land uses as a function of community noise exposure.

The California Division of Occupational Safety and Health has published Occupational Noise Exposure Regulations (California Code of Regulations Title 9, Sections 5095–5099) that set employee noise exposure limits.

3.13.2.3 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 noise and vibration that would otherwise be relevant to the Project and alternatives are described below.

City of Fremont

City of Fremont General Plan

The City of Fremont General Plan includes the following goal and policies related to noise and vibration (City of Fremont 2011):

> **Goal 10-8: Noise & Vibration.** Minimal impacts to residents and property due to noise and ground vibration sources.

Policy 10-8.2: Acceptable Noise Environment. Guidelines articulated by Table 10-4 [see **Table 3.13-5 (Table 10-4)**, *Land Use Compatibility for Community Exterior Noise Environments*] are not intended to be applied reciprocally. In other words, if an area currently is below the desired noise standards, an increase in noise up to the maximum should not necessarily be allowed. The impact of a proposed project on an existing land use should be evaluated in terms of potential for adverse community response based on a substantial increase in existing noise levels, regardless of the compatibility guidelines.

TABLE 3.13-5 (TABLE 10-4)
LAND USE COMPATIBILITY FOR COMMUNITY EXTERIOR NOISE ENVIRONMENTS

Land Use Category	Exterior Noise Exposure (Ldn)															
	<55		55		60		65		70		75		80		>80	
Single-Family and Multi-Family Residential																
Hotels, Motels and other lodging																
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds																
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches																
Office Buildings, Business, Commercial, and Professional																
Auditoriums, Concert Halls, Amphitheaters																

NORMALLY ACCEPTABLE:
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements

CONDITIONALLY ACCEPTABLE:
Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

UNACCEPTABLE:
New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies

NOTES: L_{dn} = day-night noise level
SOURCE: Reproduced Table 10-4 from the City of Fremont 2030 General Plan.

Policy 10-8.3: Noise Environment Protection. Protect existing residential neighborhoods from noise. In general, the City will require the evaluation of mitigation measures for projects under the following circumstances:

1) The project would cause the Ldn to increase by 5 dB(A) or more but would remain below 60 dB(A), or;
2) The project would cause the L_{dn} to increase by 3 dB(A) or more and exceed 60 dB(A), or;
3) The project has the potential to generate significant adverse community response due to the unusual character of the noise.

Policy 10-8.5: Construction Noise Levels. Control construction noise at its source to maintain existing noise levels, and in no case to exceed the acceptable noise levels.

Policy 10-8.6: Sensitive Uses. Protect schools, hospitals, libraries, places of religious worship, convalescent homes, and other noise sensitive uses from noise levels exceeding those allowed in residential areas.

Policy 10-8.10: Vibration Environment. A vibration environment which meets acceptable guidelines as provided by the Federal Transit Administration (FTA).

City of Fremont Municipal Code

Section 18.160.010 of the City of Fremont Municipal Code exempts construction activities within 500 feet of one or more residences, lodging facilities, nursing homes, or inpatient hospitals between 7:00 a.m. and 7:00 p.m. on weekdays, and between 9:00 a.m. and 6:00 p.m. on Saturdays or holidays, with no construction permitted on Sundays. For construction activities located beyond 500 feet from residences, lodging facilities, nursing homes, or inpatient hospitals, the permitted hours are between 6:00 a.m. and 10:00 p.m. on weekdays, and between 8:00 a.m. and 8:00 p.m. on weekends or holidays.

Section 18.50.040 of the City of Fremont Municipal Code sets the maximum noise level for the I-G district of 70 dB(A) L_{dn} measured at the property line of industrial, commercial, business, professional, or office.

City of Milpitas

City of Milpitas General Plan

The City of Milpitas General Plan includes the following goal and policies related to noise and vibration (City of Milpitas 2021):

Goal N-1: Preserve a nuisance-free noise environment for existing and future land uses by minimizing exposure to harmful and excessive noise levels.

Policy N 1-2: Require new development to mitigate excessive noise to the standards indicated in Tables N-1 and N-2 through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials.

Policy N 1-3: Use sound walls for sound attenuation only when other measures are not practical, or when recommended by an acoustical expert as part of a mitigation measure. Sound walls shall be designed to be aesthetically pleasing, and should incorporate features such as vegetation, variations in color and texture, artwork, and other features deemed appropriate by the City.

Policy N 1-6: For projects that are required to prepare an acoustical study to analyze noise impacts, the following criteria shall be used to determine the significance of those impacts:

Stationary and Non-Transportation Noise Sources:

- A significant impact will occur if the project results in an exceedance of the noise level standards contained in this element. In instances where the ambient noise level is already above the standards contained in this element, a significant

impact will occur if the project will result in an increase in ambient noise levels by more than 3 dB. This does not apply to temporary construction activities.

Transportation Noise Sources:

- Where existing traffic noise levels are 60 dB L_{dn} or less at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in roadway noise levels will be considered significant;
- Where existing traffic noise levels are greater than 60 dB L_{dn} and up to 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in roadway noise levels will be considered significant; and
- Where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB L_{dn} increase in roadway noise levels will be considered significant.

Policy N 1-8: Require construction activities to comply with standard best practices to reduce noise exposure to adjacent sensitive receptors.

Policy N 1-12: Require non-transportation related noise from site specific noise sources to comply with the standards shown in Table N-2.

Policy N 1-13: Regulate the effects of operational noise from existing and new industrial and commercial development on adjacent sensitive uses through the enforcement of the City's noise standards (see Title V, Chapter 213 of the Milpitas Municipal Code).

City of Milpitas Municipal Code

Section V-213-3 3.07 of the City of Milpitas Municipal Code exempts construction activities between 7:00 a.m. and 7:00 p.m. on weekdays and weekends, with no construction work permitted on holidays; however, Section V-213-3 3.08 exempts the following activities from the Off-Site Construction Regulations:

1) Emergency construction and repair that is necessary for the protection of life and property.
2) Operation preempted from local regulation by state law, such as construction of public school buildings.
3) Furnishing utility-type service, including construction and maintenance of utility facilities.
4) Any work on an existing single-family or duplex (i.e., two-family) dwelling undertaken by the property owner.
5) Operation to construct and maintain facilities within the public right-of-way as deemed necessary by the Public Works Director.
6) Any other circumstances where the City Manager deems that an exemption would be appropriate.

There are no specific noise level criteria for construction activities or exterior operational noise levels (City of Milpitas 2021).

City of San José

City of San José General Plan

The City of San José General Plan includes the following policies related to noise and vibration (City 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. 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"; 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.

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-2.1: Near light and heavy rail lines or other sources of ground-borne vibration, minimize vibration impacts on people, residences, and businesses through the use of setbacks and/or structural design features that reduce vibration to levels at or below the guidelines of the Federal Transit Administration. Require new development within 100 feet of rail lines to demonstrate prior to project approval that vibration experienced by residents and vibration sensitive uses would not exceed these guidelines.

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 buildings 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 (i.e., non-transportation sources) and specifies the hours for project construction. The Municipal Code restricts construction within 500 feet of a residential unit from

7:00 a.m. to 7:00 p.m. Monday through Friday, with no construction permitted 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 of San José.

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 or 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 acoustical descriptor assigned to these noise levels, it is a reasonable interpretation that these levels may be applied to the DNL based on General Plan Policy ES-1.3.

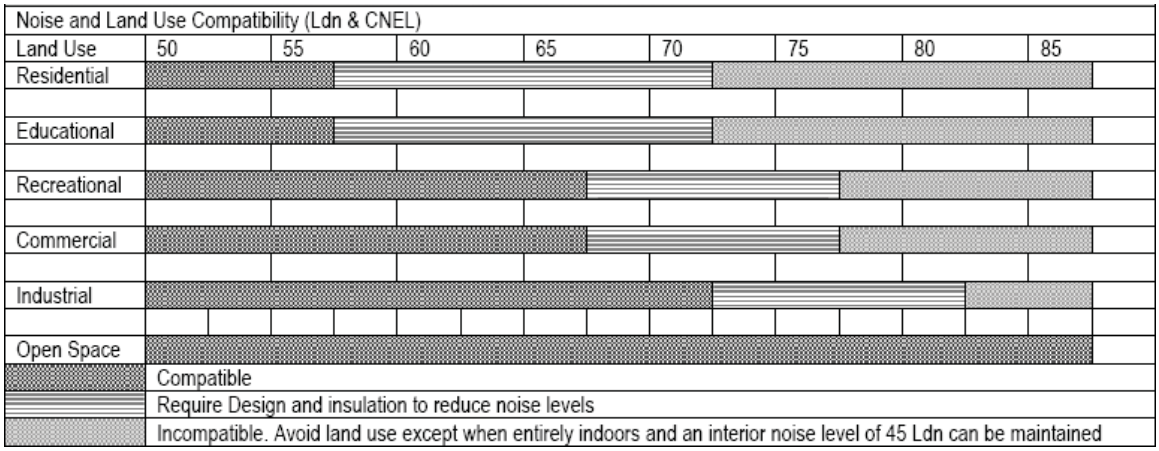
Municipal Code Section 13.44.150 establishes restrictions on amplified sound in the city of San José. Specifically, operation of loudspeakers or sound amplifiers in parks is prohibited unless approved under a lease or contract entered into by the City or authorized through issuance of a special event permit under Municipal Code Chapter 13.14, which may establish additional operational conditions.

City of Santa Clara

City of Santa Clara General Plan

The Santa Clara General Plan contains guidelines for determining the compatibility of various land uses with different outdoor noise environments (City of Santa Clara 2010). The General Plan recognizes that some land uses are more sensitive to ambient noise levels than others because of the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of typical activities. The city of Santa Clara uses state noise guidelines for judging the compatibility between various land uses and their noise environments, which are summarized in **Table 3.13-6**, *Land Use Noise Compatibility Guidelines—City of Santa Clara*.

TABLE 3.13-6
LAND USE NOISE COMPATIBILITY GUIDELINES—CITY OF SANTA CLARA



NOTES: CNEL = community noise equivalent level; L_{dn} = day-night noise level

SOURCE: Reproduced Table 8.14-1 from the City of Santa Clara 2010–2035 General Plan.

Compatibility is dependent upon characteristics of the use. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements, with necessary noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Chapter 5 of the Santa Clara General Plan identifies the following policies related to noise and vibration:

> ***5.10.6-G1:*** Noise sources restricted to minimize impacts in the community.
>
> ***5.10.6-G2:*** Sensitive uses protected from noise intrusion.
>
> ***5.10.6-G3:*** Land use, development and design approvals that take noise levels into consideration.
>
> > *5.10.6-P1*: Review all land use and development proposals for consistency with the General Plan compatibility standards and acceptable noise exposure levels defined on Table 5.10-1 [of the Santa Clara General Plan].
> >
> > *5.10.6-P2:* Incorporate noise attenuation measures for all projects that have noise exposure levels greater than General Plan "normally acceptable" levels, as defined on Table 5.10-1.
> >
> > *5.10.6-P3:* New development should include noise control techniques to reduce noise to acceptable levels, including site layout (setbacks, separation and shielding), building treatments (mechanical ventilation system, sound-rated windows, solid core doors and baffling) and structural measures (earthen berms and sound walls).
> >
> > *5.10.6-P4:* Encourage the control of noise at the source through site design, building design, landscaping, hours of operation and other techniques.
> >
> > *5.10.6-P5:* Require noise-generating uses near residential neighborhoods to include solid walls and heavy landscaping along common property lines, and to place compressors and mechanical equipment in sound-proof enclosures.
> >
> > *5.10.6-P6:* Discourage noise sensitive uses, such as residences, hospitals, schools, libraries and rest homes, from areas with high noise levels, and discourage high noise generating uses from areas adjacent to sensitive uses.
> >
> > *5.10.6-P7:* Implement measures to reduce interior noise levels and restrict outdoor activities in areas subject to aircraft noise in order to make Office/Research and Development uses compatible with the Norman Y. Mineta International Airport land use restrictions.
> >
> > *5.10.6-P8:* Continue to encourage safe and compatible land uses within the Norman Y. Mineta International Airport Noise Restriction Area.
> >
> > *5.10.6-P9:* Work with the City of San José Norman Y. Mineta International Airport to implement mitigation from aircraft noise to the fullest extent possible.
> >
> > *5.10.6-P10:* Encourage transit agencies to develop and apply noise reduction technologies for their vehicles to reduce the noise and vibration impacts of Caltrain, Bay Area Rapid Transit, future High Speed Rail, light rail and bus traffic.

5.10.6-P11: Develop and include noise reduction measures with improvements and extensions of City streets.

5.5.2-P11: Restrict loading, trash and noise-generating activities to protect adjacent residential uses.

5.8.6-P13: Restrict lighting and noise generation associated with surface and structured parking from intrusion into adjacent residential neighborhoods.

5.8.7-P5: Require new development to implement appropriate measures to reduce the negative effects, such as noise and vibration, of rail and freight services.

5.8.7-P7: Maintain consistency with the Federal Transportation Authority vibration standards for land uses in proximity to railroads, light rail and the future high speed rail.

City of Santa Clara Municipal Code

The city of Santa Clara also regulates noise by enforcing its noise ordinance, detailed in Chapter 9.10, Regulation of Noise and Vibration, and Title 9 of the Municipal Code. The noise ordinance within Title 9, Public Peace, Morals, and Welfare, regulates noise and vibration from fixed sources.

Transportation noise is regulated at the federal and state levels by noise limits placed on vehicle manufacturers.

Error! Reference source not found. **3.13-7***, Exterior Sound or Noise Limits,* presents exterior sound or noise limits for residential, civic, industrial, and commercial zoning categories. Section 9.10.070(e) exempts construction noise from these noise limit restrictions.

TABLE 3.13-7
EXTERIOR SOUND OR NOISE LIMITS

Receiving Zone Zoning Category	Time Period	Noise Level (dBA)
Category 1		
Single-family and duplex residential (R1, R2)	Commencing at 7:00 AM and ending at 10:00 PM that evening	55
	Commencing at 10:00 PM and ending at 7:00 AM the following morning	50
Category 2		
Multiple-family residential, public space (R3, B)	Commencing at 7:00 AM and ending at 10:00 PM that evening	55
	Commencing at 10:00 PM and ending at 7:00 AM the following morning	50
Category 3		
Commercial, Office (C, O)	Commencing at 7:00 AM and ending at 10:00 PM that evening	65
	Commencing at 10:00 PM and ending at 7:00 AM the following morning	60
Category 4		
Light Industrial (ML, MP)	Anytime	70
Heavy Industrial (MH)	Anytime	75

NOTES: dBA = A-weighted decibels
SOURCE: Reproduced Schedule A from Santa Clara City Code 2021.

The noise ordinance within Chapter 9.10, Regulation of Noise and Vibration, addresses persistent nuisance noise which it defines as the following:

> *No person shall engage or authorize others to engage in construction of any building or related road or walkway, pool or landscape improvement, or in construction operations related thereto, including delivery of construction materials, supplies, or improvements on or to a construction site within three hundred (300) feet of any residentially zoned property except within the hours of 7:00 A.M. to 6:00 P.M. following on weekdays other than holidays, Monday through Friday, inclusive; and within the hours of 9:00 A.M. to 6:00 P.M. following, inclusive, on any Saturday which is not a holiday.*

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 LSPCG, PG&E, and SVP to reduce impacts. Each utility would be responsible for implementing its measures only to that part of the Project for which it would own or be responsible.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for the portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.13.3.1 LSPGC Applicant-Proposed Measures

LSPGC has proposed no Applicant-proposed measures (APMs) pertaining to noise and vibration within LSPGC's portion of the Project.

3.13.3.2 PG&E Best Management Practices and Field Protocols

PG&E has proposed no best management practices or field protocols pertaining to noise and vibration within PG&E's portion of the Project.

3.13.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to noise within SVP's portion of the Project.

3.13.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, 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

Construction Noise Impacts

Equipment and vehicle noise during construction of the Project is the primary concern in evaluating short-term noise impacts. Noise from equipment and vehicles associated with the Project's construction activities were modeled using the sound propagation equations.

In its Proponent's Environmental Assessment, LSPGC provided a noise estimate for shoring operations of the proposed jack-and-bore adjacent to the existing SVP NRS 230 kV Substation, estimating noise levels at 100 feet from the nearest receptor using empirical data noise ratings (Appendix E). However, ESA could not replicate the provided estimated noise level of 80 dBA L_{eq} at 50 feet, as typical noise estimates for shoring operations, including a vibratory pile driver, are around 93.8 dBA L_{eq} at 50 feet according to the Federal Highway Administration's Roadway Construction Noise Model (FHWA 2006). Therefore, ESA supplemented LSPGC's analysis with noise levels from the Roadway Construction Noise Model, which indicated that LSPGC's estimate appears to be an underestimate.

Short-term construction noise levels have been evaluated relative to ambient noise levels and local standards of the applicable jurisdictions (cities of Fremont, Milpitas, San José, and Santa Clara). For construction activities within the city of San José, pursuant to 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 (e.g., building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) that would continue for more than 12 months. For temporary construction-related noise 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, which would subjectively be heard as approximately a doubling in loudness and can cause an adverse response, for a period of more than 12 months.

In addition, where the applicable local jurisdictions (the cities of Fremont, Milpitas, and Santa Clara) do not have noise level standards for construction activities, the Project construction noise impacts are assessed relative to the recommendations of the San José Envision 2040 General Plan EIR.

Operations and Maintenance Impacts

During operation, noise from corona discharge along the new transmission line, substation noise, and general operation and maintenance (O&M) activity noise would be the primary concerns associated with long-term operational noise. In its Proponent's Environmental Assessment, LSPGC provided a noise estimate for operations of the proposed SVP NRS 230 kV Substation modifications. 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 thresholds established by the local jurisdictions. Additional details regarding methodology are included in the individual impact analyses below.

Vibration Impacts

This analysis also considers FTA thresholds for potential architectural damage and human annoyance in response to groundborne vibrations. The architectural damage threshold for the buildings extremely susceptible to vibration damage is 0.12 in/sec PPV, and the human annoyance threshold for all residential land uses and any buildings where people sleep, such as hotels and hospitals, is 75 VdB (FTA 2018).

City of San José General Plan Policy EC-2.3 requires new development to minimize the impacts of continuous vibration on adjacent uses during demolition and construction. For sensitive historic structures, including ruins and ancient monuments or buildings that are documented to be structurally weakened, a continuous vibration limit of 0.08 in/sec PPV is the standard applied to minimize the potential for cosmetic damage to a building. A continuous vibration limit of 0.20 in/sec PPV is applied to minimize the potential for cosmetic damage at buildings of normal conventional construction.

Transient vibration impacts may exceed the 0.08 in/sec PPV vibration limit only if a technical study by a qualified professional verifies that there would be virtually no risk of cosmetic damage to sensitive buildings from the new development's demolition and construction.

Caltrans' threshold for architectural damage to conventional sensitive structures is 0.5 in/sec PPV for new residential structures and modern commercial buildings, and 0.25 in/sec PPV for historic and older buildings (Caltrans 2020). However, because the City of San José General Plan's standards are more restrictive, the city of San José thresholds were applied in this analysis, while the cities of Fremont, Milpitas, and Santa Clara were assessed based on the Caltrans recommendations.

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.

Construction Noise Time-of-Day Restrictions

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 (under which the Project application was filed) and its successor General Order 131-E. However, the local regulatory standards described above have exemptions for the type of work proposed for the Project. The cities of Fremont, Milpitas, San José, and Santa Clara 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*. Construction would be limited to the allowable hours within these jurisdictions.

TABLE 3.13-8
ALLOWABLE HOURS FOR CONSTRUCTION NOISE

Jurisdiction	Weekdays	Saturdays	Sundays	Federal Holidays
City of Fremont[a,b]	7:00 a.m. to 7:00 p.m.	9:00 a.m. to 6:00 p.m.	Construction not allowed	9:00 a.m. to 6:00 p.m.
City of Milpitas	7:00 a.m. to 7:00 p.m.	7:00 a.m. to 7:00 p.m.	7:00 a.m. to 7:00 p.m.	Construction not allowed
City of San José	7:00 a.m. to 7:00 p.m.	Construction not allowed	Construction not allowed	Not specified
City of Santa Clara[c]	7:00 a.m. to 6:00 p.m.	9:00 a.m. to 6:00 p.m.	Not specified	Construction not allowed

NOTES:
a. Listed allowable hours are for construction activities within 500 feet of one or more residences, lodging facilities, nursing homes, or inpatient hospitals.
b. For construction activities located beyond 500 feet of residences, lodging facilities, nursing homes, or inpatient hospitals, construction shall be limited to 6:00 a.m. to 10:00 p.m. and 8:00 a.m. to 8:00 p.m. on weekends or holidays.
c. Within 300 feet of any residentially zoned property.

SOURCES: City of Fremont 2023; City of Milpitas 2023; City of San José 2024b; City of Santa Clara 2023.

As discussed in Section 2.9.4, *Construction Schedule*, construction activities would adhere to the allowable construction work hours specified in Table 3.13-8. If LSPGC determines that work is 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), it would follow the recommended provisions of a variance if necessary. All construction activity for the Project would be consistent with the time-of-day restrictions established by local ordinances, as discussed above. Although nighttime construction is not likely, it may occasionally be needed to meet Project milestones. Nighttime construction is most likely to occur within commercial and industrial areas and not in residential areas.

Therefore, there would be no conflict with applicable local noise policies or ordinances related to time-of-day restrictions for construction, and there would be no impact on this criterion. (*No Impact*)

Impact 3.13-1: The Project would not 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. (*Less than Significant*)

Construction

Construction activities would require a variety of heavy equipment, such as dozers, excavators, dump trucks, loaders, and hydraulic cranes, that would generate varying noise levels depending on the construction equipment. On-site construction activities (i.e., construction activities within the proposed alignments, staging areas, and substation) would create both intermittent and continuous noises. Off-site construction noise sources would consist of passing trucks and other construction-related vehicles. Examples of intermittent construction noise sources would be from passing off-road equipment, loading operations, and from grading and drilling activities. Continuous noise sources would include sustained idling of equipment and/or the operation of pumps and generators at constant rates. In addition, helicopters would be needed to assist with stringing the pilot lines for the construction of the proposed transmission lines between structures NN-4 and NN-15.

For construction activities within San José, pursuant to 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 (e.g., 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 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 a period of more than 12 months.

No applicable local noise level standards are available to judge the significance of short-term construction noise levels in the cities of Fremont, Milpitas, and Santa Clara. In lieu of local quantitative standards for construction noise in those jurisdictions, this analysis provides a quantitative evaluation of daytime construction noise effects based on the San José Envision 2040 General Plan EIR.

Typical L_{max} noise levels from equipment types 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 Project construction activities were modeled using the sound propagation equations.

In addition to these equipment noise levels, construction activities involving helicopter operations would be expected to generate noise levels of approximately 75–85 dBA L_{eq} at 50 feet (Appendix E).

TABLE 3.13-9
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	L_{max} Noise Level (dBA) at 50 feet
Backhoe	80
Backhoe Ram	85–90
Concrete Mixer	85
Pump Truck	82
Crane, Mobile	81
Dozer	85
Excavator	85
Generator/Welder	81
Grader	85
Manlift/Aerial Lift/Forklift	85
Loader	85
Paver	89
Roller	85
Scraper	89
Trencher	75
Drill Rig	85
Trucks (all types)	74–88
Helicopter	75–85
Vibratory Pile Driver	101

NOTES: dBA = A-weighted decibels; L_{max} = maximum noise level
SOURCE: Data compiled by Environmental Science Associates in 2024.

Construction of the proposed Newark to NRS 230 kV AC transmission line would generate temporary noise levels of 76–85 dBA L_{max} at the nearest sensitive receptor, located 20 feet from residential uses along Lafayette Street. **Table 3.13-10**, *Construction Noise Levels*, conservatively assumes that all pieces of construction equipment for the transmission line would operate simultaneously for the duration of the activity at the closest receptor. Construction of the proposed transmission line would also generate temporary noise levels of up to 74 dBA L_{eq} at the nearest sensitive receptor, located 40 feet away, and up to 64 dBA at the nearest sensitive receptor, located 130 feet from residential uses along Grand Boulevard. Construction equipment for the proposed transmission line would be operated for only a few days in those locations. The duct bank installation for the proposed transmission line would also progress linearly. Although construction of the transmission line would generate noise levels exceeding the established standard (5 dBA L_{eq} above the existing ambient noise level), the duration of time the activity affects a given receptor does not represent a substantial temporary increase in ambient noise. Therefore, none of the linear components would result in a substantial temporary increase in ambient noise levels exceeding the standards established in the local general plan, and the impact would be **less than significant**.

TABLE 3.13-10
CONSTRUCTION NOISE LEVELS

Equipment Required	Equipment Noise Levels (L_{eq}; 50 feet)	Noise Level (L_{eq}; 50 feet)	Duration at Each Location	Receptor Nearest to Construction	Noise Level at Nearest Receptor (L_{eq})
Site Development (Preparation and Grading)					
Dozer	74	81.3	120 Workdays	200	69.3
Scraper	75				
Excavator	79				
Below-grade Construction					
Dump Truck	75	81.2	150 Workdays	200	69.1
Excavator	79				
Loader/Tractor	73				
Above-grade Construction					
Grader	73	77.5	450 Workdays	200	65.4
Loader	73				
Tractor	72				
Transmission Line Construction					
Hydraulic Crane	73	82.1	480 Workdays	20	90.1
Loader	73				
Excavator	79				

NOTE: L_{eq} = equivalent sound level
SOURCES: LS Power Grid California 2024 and ESA 2024 (see Appendix E).

The modeling for Table 3.13-10 conservatively assumed that all pieces of construction equipment associated with the SVP NRS 230 kV Substation modifications would operate simultaneously for the duration of that activity where the Newark to NRS 230 kV AC transmission line meets the SVP NRS 230 kV Substation at the boundary closest to the receptor.

As shown in the table, construction of the SVP NRS 230 kV Substation modifications during the site development, below-grade, and above-grade phases would generate temporary noise levels in the upper 60 dBA L_{eq} range at the nearest sensitive receptors. These receptors include single-family residences along Lafayette Street east of the Project site and multi-family residences adjacent to the substation to the south. However, the existing ambient daytime noise levels at this location are as low as 70 dBA L_{eq} (near the existing SVP NRS 230 kV Substation).

Throughout the construction period, Project activities would not exceed the existing ambient noise levels at residential land uses by 10 dBA L_{eq} or more for over a year. The impact of the SVP NRS 230 kV Substation modifications would be **less than significant**.

No sensitive receptors are within 1,000 feet of the proposed construction activity for the PG&E Newark 230 kV Substation modifications. Because the nearest residential receptors are more than 1,000 feet away and the substation is surrounded by industrial land uses, construction noise levels at those receptors would be less than those described in Table 3.13-10 and would not result in a

substantial temporary increase in ambient noise levels. Therefore, the construction noise impact associated with the proposed modifications at the PG&E Newark 230 kV Substation would be **less than significant**. Construction of the Project would require the use of on-road vehicles to deliver and haul materials to and from all Project components.

Construction traffic would access the staging areas from Weber Road via Boyce Road and Interstate 880 or Los Esteros Road. The annual average daily traffic for Weber Road (industrial area) is not available. However, the annual average daily traffic along Lafayette Street is approximately 19,100 vehicles per day (Caltrans 2022). In comparison, Interstate 880 north of State Route 262 has an annual average daily traffic of 20,900 vehicles (Caltrans 2022), while Los Esteros Road sees about 2,100 vehicles per day (City of San José 2021). Maximum daily haul and vendor truck trips would likely be approximately 500 truck trips per day. The addition of the Project's haul and vendor trucks would have a minimal effect on daily traffic volumes along 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, and the impact would be **less than significant**.

For construction helicopter activity in San José and Milpitas, helicopter noise was modeled from the nearest staging areas (i.e., helicopter landing area) and along the Project alignments. Helicopter noise at Staging Area 7 in San José would result in a noise level of 56.7 dBA at 1,300 feet to the nearest residence. However, helicopters would be used to string the pilot lines along the Newark to NRS 230 kV AC transmission line, between structures NN-4 and NN-15, which are surrounded by open space, industrial uses, and commercial and warehouse developments. Typical helicopter noise levels can reach 75–85 dBA; however, no residential uses are in the vicinity. Helicopter operations would be flown for approximately 1 week for 8 hours a day. As described in Section 2.8.1.3, *Helicopter Access*, helicopters would comply with applicable rules and regulations. In addition, helicopter flight schedules would be filed with the Federal Aviation Administration, as required. Given the temporary nature of helicopter use, noise exposure levels for residences in San José and Milpitas would be reduced to a less-than-significant level. Therefore, the noise impact from helicopter construction activity would be **less than significant**.

ESA estimated contributions to construction noise levels at the nearest off-site sensitive uses from sheet pile driving during construction of the transmission line using a jack-and-bore machine. The nearest receptor is approximately 100 feet from the closest proposed jack-and-bore, which is adjacent to the existing SVP NRS 230 kV Substation. Shoring activities would generate temporary noise levels of 87.9 dBA L_{eq} at the nearest sensitive receptor.

Although sheet pile driving could potentially generate noise levels that exceed ambient noise levels, the duration of this noise (less than 1 month at boring and splice vault locations and less than 1 week for standard trenching and transmission line construction) would not increase ambient noise levels for more than 12 months in a single location, as defined by San José General Plan Policy EC-1.7. Furthermore, the activity near any given receptor would be brief, limiting the maximum noise levels at any one location to less than 1 week. Although the quantitative criterion could be exceeded, the limited duration of exposure means that the impact would be less than significant.

This is similar to in-road pipeline trenching work on a roadway with residential receptors along its alignment. Therefore, the impact of shoring activity would be **less than significant**.

Operations and Maintenance

The PG&E Newark 230 kV Substation is in the city of Fremont, and modifications to the existing substation would include modifying an existing open 230 kV bay to accommodate the Project's interconnection. Additional substation modifications include the installation of new circuit breakers, disconnect switches, capacitive voltage transformers, a new dead-end structure, and typical substation equipment, such as structural steel, bus work, conduits, and grounds (Appendix E). The Project's O&M activities would generally be similar to existing O&M activities. Additionally, because of the substantial distance (3,600 feet) separating the nearest sensitive receptor from the Project site, operational noise generated at the Project would attenuate to levels below the ambient noise level at this receptor, resulting in a less-than-significant operational noise impact.

Transformer banks account for most of the noise generated by substation infrastructure operations. 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. The SVP NRS 230 kV Substation is in the city of Santa Clara, and modifications to the existing substation would include the construction of new line positions, transformer positions, the installation of four new transformers, and the removal of two existing transformers. The nearest residences are located approximately 200 feet east (across Lafayette Street) and 85 feet south of the existing substation. The modification equipment for the SVP NRS 230 kV Substation would be situated mainly in the central area of the existing substation site. Additionally, the existing SVP NRS 230 kV Substation site has a solid 10-foot-tall wall surrounding the perimeter of the site, which breaks the line of sight and reduces noise levels by at least 5–8 dBA (Appendix E). **Table 3.13-11**, *SVP NRS 230 kV Substation Operational Noise Levels*, shows the projected exterior sound levels resulting from full operation of the Project at each of the closest receptors.

TABLE 3.13-11
SVP NRS 230 KV SUBSTATION OPERATIONAL NOISE LEVELS

Receiver	Description	Nearest Project Feature	Noise Level (dBA L_{eq})		Does the Noise Level Exceed Standard?[1]
			At Property Line	City Standard (nighttime)	
1	Single-family residence south of the SVP NRS 230 kV Substation on Gianera Street	SVP NRS 230 kV Substation	33	50	No
2	Single-family residence east of the SVP NRS 230 kV Substation on Lafayette Street	SVP NRS 230 kV Substation	43	50	No

NOTES:

dBA = A-weighted decibels; kV = kilovolt; L_{eq} = equivalent sound level; NRS = Northern Receiving Station; SVP = Silicon Valley Power

1. Per the City of Santa Clara Code of Ordinances, the applicable daytime noise threshold (7:00 a.m. to 10:00 p.m.) is 55 dBA L_{eq} at residential properties, while the applicable nighttime noise threshold (10:00 p.m. to 7:00 a.m.) is 50 dBA L_{eq} at residential properties.

SOURCE: Data provided by LS Power Grid California 2024 and ESA 2024 (see Appendix E)

Table 3.13-11 shows that the Project's operational noise levels at receptors 1 and 2 would comply with the city of Santa Clara Noise Control Ordinance's daytime and nighttime threshold limits of 55 dBA and 50 dBA, respectively. Therefore, operational noise impacts would be **less than significant**.

Mitigation: None required.

Criterion b) Whether the Project would generate excessive groundborne vibration or groundborne noise levels.

Impact 3.13-2: The Project would not generate excessive groundborne vibration or groundborne noise levels. *(Less than Significant*)

Construction

The types of Project construction 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 pile installation. During construction of the transmission line, sheet pile driving would require the use of a vibratory hammer.

As discussed in Section 3.13.2, *Regulatory Setting*, FTA's vibration threshold for potential architectural damage to buildings extremely susceptible to vibration damage is 0.12 in/sec, and FTA's human-annoyance threshold for all residential land uses is 75 VdB. City of San José General Plan Policy EC-2.3 requires new development to minimize the impacts of continuous vibration on adjacent uses during demolition and construction. For sensitive historic structures, including ruins and ancient monuments or buildings that are documented to be structurally weakened, a continuous-vibration limit of 0.08 in/sec PPV is the standard applied to minimize the potential for cosmetic damage to a building. A continuous-vibration limit of 0.20 in/sec PPV is applied to minimize the potential for cosmetic damage at buildings of normal conventional construction.

City of San José General Plan Policy EC-2.3 also discourages the use of impact pile drivers within 125 feet of any buildings, and within 300 feet of historical buildings or buildings in poor condition. For specific projects, the 300-foot distance may be reduced if a technical study by a qualified professional verifies that there would be virtually no risk of cosmetic damage to sensitive buildings during demolition and construction.

A matrix of typical vibration levels from various construction activities at 25 feet is presented in **Table 3.13-12**, *Vibration Levels for Construction Activity*. No historic structures are located within the vicinity of the Project's construction areas (see Section 3.5, *Cultural Resources*, for further details).

The likely use of a vibratory pile driver for installing sheet piles during transmission line construction, along with the use of a jack-and-bore machine, would be expected to generate the highest vibration levels during the Project's construction activities. According to the Caltrans *Transportation and Construction Vibration Guidance Manual*, both impact pile driving and vibratory pile driving typically generate vibration levels of 0.65 in/sec PPV at 25 feet (Caltrans

2020). The closest existing off-site buildings to Project construction activities involving vibratory pile driving are residences to the east of Lafayette Street, approximately 100 feet from the existing SVP NRS 230 kV Substation. Residences east of Lafayette Street would be exposed to a vibration level of 0.081 in/sec PPV, which is equivalent to 86 VdB. At this distance, vibration levels would be well below the building damage threshold (0.5 in/sec PPV) and would be above FTA's 80 VdB criterion for infrequent (construction-related) events at residential receptors during nighttime hours when people would likely be sleeping. However, pile driving activity would be limited to daytime hours only. Accordingly, noise- and vibration-related Project impacts on nearby buildings from the use of a vibratory pile driver during construction of the proposed Newark to NRS 230 kV AC transmission line alignment would be **less than significant**.

TABLE 3.13-12
VIBRATION LEVELS FOR CONSTRUCTION ACTIVITY

Construction Operation	Vibration Metric	Reference Vibration Level (at 25 feet)
Vibratory Roller	in/sec (PPV)	0.21
Vibratory Roller	VdB	94
Backhoe Ram	in/sec (PPV)	0.089
Backhoe Ram	VdB	87
Bulldozer (large)	in/sec (PPV)	0.089
Bulldozer (large)	VdB	87
Bulldozer (small)	in/sec (PPV)	0.003
Bulldozer (small)	VdB	58
Jackhammer	in/sec (PPV)	0.035
Jackhammer	VdB	79
Haul Truck	in/sec (PPV)	0.076
Haul Truck	VdB	86
Pile Driver (vibratory)	in/sec (PPV)	0.65
Pile Driver (vibratory)	VdB	104
Worst-Case Project at 50 feet	in/sec (PPV)	0.074

NOTES: FTA = Federal Transit Administration; in/sec = inches per second; PPV = peak particle velocity; VdB = vibration decibels
SOURCES: FTA 2018.

The nearest existing off-site buildings would be residences located on Grand Boulevard and Spreckles Avenue approximately 20–40 feet from the proposed Newark to NRS 230 kV AC transmission line. The use of a vibratory roller would be the greatest contributor of vibration during construction of the proposed Newark to NRS 230 kV AC transmission line. A vibratory roller typically generates vibration levels of 0.21 in/sec PPV at 25 feet (see Table 3.13-12), which is equivalent to approximately 94 VdB. At this distance, vibration levels would be well below the building-damage threshold (0.5 in/sec PPV) and would be above FTA's 80 VdB criterion for infrequent (construction-related) events at residential receptors during nighttime hours when people would likely be sleeping. However, the most likely areas for nighttime construction would be within commercial and industrial areas, rather than residential areas. Accordingly, noise- and

vibration-related Project impacts on nearby buildings from the use of a vibratory roller during construction of the proposed Newark to NRS 230 kV AC transmission line would be **less than significant**.

Construction vibration from the modifications to the PG&E Newark 230 kV Substation and to the SVP NRS 230 kV Substation would occur farther from existing structures than construction vibration along the proposed Newark to NRS 230 kV AC transmission line. No structures that could be vulnerable to vibration, and that could sustain damage from groundborne vibration from construction activities, are located in the immediate vicinity. The vibration impacts from the substation modifications during construction would be **less than significant**.

Operations and Maintenance

The operation of transformers at both the PG&E Newark 230 kV Substation and the SVP NRS 230 kV Substation could generate groundborne vibrations. However, the Project would not use any large rotating equipment that would introduce any new sources of perceivable groundborne vibration during O&M. In addition, the Project's O&M activities would not require the use of heavy equipment that would generate high vibration levels. Therefore, the Project has no potential to generate ground vibration levels exceeding the 0.2 in/sec or 72 VdB significance criteria. Thus, operational vibration impacts of the Project 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 3.13-3: The Project would not expose people residing or working in 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 and in the Project area to excessive noise levels. (*Less than Significant*)

The Project is not located within 2 miles of a public airport or public use airport, therefore, the Project would not expose people residing or working in the Project area to excessive noise levels.

The modifications to the PG&E Newark 230 kV Substation would occur at the existing substation, which is located approximately 9 miles northwest of the San José Mineta International Airport and 29 miles north of the Reid-Hillview County Airport.

The SVP NRS 230 kV Substation modifications would occur at the existing SVP NRS 230 kV Substation, located 2.2 miles north of San José Mineta International Airport, and situated between the airport's current and future 60–65 dBA community noise equivalent level contours, according to the San José Mineta International Airport Land Use Compatibility Plan (SCCALUC 2024). Additionally, the Reid-Hillview County Airport is located 12.5 miles southeast of the existing SVP NRS 230 kV Substation.

The Project would not involve the development of noise-sensitive land uses that would be exposed to excessive aircraft noise. The Project's construction workers, as well as nearby residents, would be exposed to periodic short-term aircraft overflight noise from these airports; however, the average noise levels from construction activities would be substantially higher than the average overflight noise levels to which they would be exposed. Therefore, impacts 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 potential significant cumulative impact with respect to the noise and vibration considerations evaluated below.

The geographic scope of the analysis for cumulative noise and vibration construction impacts encompasses sensitive receptors and cumulative projects within approximately 1,000 feet of the Project area. This screening threshold distance was developed based on equations for stationary-source noise attenuation (Caltrans 2013). Beyond 1,000 feet, the contributions of noise from other projects would be greatly attenuated through distance and intervening structures, and their contribution would likely be minimal. The temporal scope for cumulative noise impacts is the Project's construction and O&M phases. Table 3.0-1, *Cumulative Projects List*, in Section 3.0.3.1, *Cumulative Effects Approach*, 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 would not generate a cumulatively considerable temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plans or noise ordinances, or applicable standards of other agencies. (*Less than Significant*)

Construction

With respect to cumulative temporary construction impacts, there are several projects within 1,000 feet (0.18 mile) of the Project identified in Table 3.0-1. These include the cumulative projects at 5780 Cushing Pkwy and 44408 Pacific Commons Blvd in the city of Fremont, elements of the Tasman East project in the city of Santa Clara, the Related Santa Clara project in Santa Clara, wastewater treatment facility projects in the city of San Jose, and improvements to Zanker Road in San Jose. While many of these projects are currently under construction and would likely be finished before the construction of the Project, there are several projects where the construction timeline is unknown and construction work could occur simultaneously with the Project.

With respect to work associated with above-grade construction and/or transmission line construction, these linear activities would proceed at a rate of 50 feet per day or less. Therefore, while the potential exists for noise from construction activity to exceed 10 dBA L_{eq} over ambient

noise levels, receptors would only be impacted for approximately 2 weeks, and the limited duration is sufficient to avoid cumulative impacts that would increase ambient noise levels for more than 12 months in a single location, as defined by San José General Plan Policy EC-1.7.

For construction work at the PG&E Newark 230 kV Substation, there are no noise-sensitive receptors within 1,000 feet of the substation. Therefore, the construction activities at that part of the Project would not contribute considerably to any potential cumulative construction noise impacts.

For construction work at the SVP NRS 230 kV Substation, there are existing residential uses within 100 feet to the south of the substation. However, all elements of the Tasman East development and the Related Santa Clara development are more than 1,000 feet away from the substation. Likewise, all elements of the wastewater treatment facility projects in the city of San José and improvements to Zanker Road in San José would also be greater than 1,000 feet away. Therefore, all long-term (12 months or more) construction activities that are not linear components would be outside of the geographic scope of cumulative noise impact assessment. Therefore, incremental construction noise impacts attributable to the Project would not be cumulatively considerable. This cumulative construction noise impact would be **less than significant**.

Operations and Maintenance

Because operational noise is generally less impactful than construction noise, the same 1,000-foot geographical scope of analysis for cumulative construction noise may also conservatively be applied to operational noise from stationary sources. Long-term operational noise would only be associated with Project components within the two substations and episodic occurrences related to maintenance. There are no reasonably foreseeable cumulative projects within the geographic scope of the Project that would generate substantial operational noise. Therefore, incremental operational noise impacts from the Project's stationary sources would not be cumulatively considerable. This cumulative operational noise impact would be **less than significant**.

Mitigation: None required.

3.13.6.2 Criterion b)

Impact C.3.13-2: The Project impact of groundborne vibration or groundborne noise levels would not be cumulatively considerable. (*Less than Significant*)

Groundborne vibration attenuates with distance much more rapidly than airborne noise. The geographical scope of analysis for cumulative construction vibration impacts may be established by assuming the worst-case vibration activity (associated with pile driving) and attenuating with distance to a level at which vibrations would be below criterion applicable to building damage to historic structures (vibration limit of 0.08 in/sec PPV). This would occur at a distance of 170 feet. Consequently, a distance of 170 feet represents the geographical scope for assessment of cumulative vibration impacts. There are no reasonably foreseeable cumulative projects within the geographic scope of the Project that, when considered with the Project, would generate substantial construction vibration that would be cumulatively considerable. Construction vibration impacts would be **less than significant**.

Further, vibration impact analysis is based on instantaneous PPV levels, and worst-case groundborne vibration levels from construction are generally determined by whichever individual piece of equipment generates the highest vibration levels. Unlike the analysis for average noise levels, in which noise levels of multiple pieces of equipment can be combined to generate a maximum combined noise level, instantaneous PPV levels do not combine in this way. As described under the project-level construction vibration impact, the vibration levels from construction of the Project would be well below the human annoyance thresholds. Vibration from construction of other cumulative projects, even if those projects are located in close proximity to the Project and another structure, would not combine to raise the maximum PPV because there would be a substantial unlikelihood of simultaneous vibration peaks from separate construction sites. For these reasons, the impact of construction vibration from construction of cumulative projects located near the Project would be highly localized and would not be anticipated to combine to further increase vibration levels in a cumulative sense. Therefore, cumulative groundborne vibration impacts would be **less than significant**.

Mitigation: None required.

3.13.6.3 Criterion c)

Impact C.3.13-3: The Project would not expose people residing or working in in 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 and in the project area to cumulatively excessive noise levels. (*Less than Significant*)

As discussed above, there would be a less-than-significant impact with respect to exposure of people residing or working within the vicinity of a private airstrip or a public airport or public use airport in the Project area. As discussed in Impact 3.13-3, while the Project's construction workers and nearby residents would be exposed to periodic short-term aircraft overflight noise from these airports, the average noise levels from construction activities would be substantially higher than the average overflight noise levels to which they would be exposed. Thus, it is likely that the cumulative projects' average noise levels from construction activities would be cumulatively and substantially higher than the average overflight noise levels to which workers and nearby residents would be exposed.

Therefore, the Project's incremental contribution, in addition to the cumulative projects, would not expose people residing or working in the Project area to cumulatively excessive noise levels and this cumulative impact would be **less than significant**.

Mitigation: None required.

3.13.7 References

Caltrans (California Department of Transportation). 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* September 2013. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed June 2, 2023.

Caltrans (California Department of Transportation). 2020. *Transportation and Construction Vibration Guidance Manual*. April 2020.

Caltrans (California Department of Transportation). 2022. "Traffic Census Program." Available: https://dot.ca.gov/programs/traffic-operations/census. Accessed January 10, 2025.

City of Fremont. 2011. *City of Fremont General Plan*. Adopted December 2011. Chapter 7, "Conservation." Available: https://www.fremont.gov/home/showpublisheddocument/791/637750630830170000. Accessed December 19, 2024.

City of Fremont. 2023. Fremont Municipal Code. Available: https://www.codepublishing.com/CA/Fremont/#!/Fremont18/Fremont18160.html#18.160.010. Accessed December 19, 2024.

City of Milpitas. 2021. *City of Milpitas General Plan 2040*. Adopted March 9, 2021. Available: https://www.milpitas.gov/DocumentCenter/View/1147/Milpitas-2040-General-Plan-PDF?bidId=. Accessed December 19, 2024.

City of Milpitas. 2023. Milpitas Municipal Code. Available: https://library.municode.com/ca/milpitas/codes/code_of_ordinances?nodeId=TITVPUHESAWE_CH213NOAB. Accessed December 19, 2024.

City of San José. 2021. San José GIS Open Data: Average Daily Traffic. Available: https://gisdata-csj.opendata.arcgis.com/datasets/CSJ::average-daily-traffic/explore?location=37.429164%2C-121.960457%2C15.76. Accessed December 19, 2024.

City of San José. 2024a. *Envision San José 2040 General Plan*. Adopted November 1, 2011; as amended on October 24, 2024. Available: https://www.sanjoseca.gov/home/showpublisheddocument/22359/637928744399330000. Accessed December 19, 2024.

City of San José. 2024b. San José Municipal Code. Available: https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT20ZO_CH20.100ADPE_PT3PECO_20.100.450HOCOWI500FEREUN. Accessed December 19, 2024.

City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted November 16, 2010. Available: https://www.santaclaraca.gov/home/showpublisheddocument/56139/636619791319700000. Accessed December 19, 2024.

City of Santa Clara. 2023. Santa Clara City Code. Available: https://www.codepublishing.com/CA/SantaClara/#!/SantaClara09/SantaClara0910.html#9.10. Accessed December 19, 2024.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified

December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

FHWA (Federal Highway Administration). 2006. *FHWA Highway Construction Noise Handbook.* August 2006.

FTA (Federal Transit Administration). 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed May 16, 2023.

Lercher, P., S.A. Stansfield, and S.J. Thompson. 1998. "Non-Auditory Health Effects of Noise; Review of the 1993–1998 Period." Noise Effects-98 Conference Proceedings, p. 213.

SCCALUC (Santa Clara County Airport Land Use Commission). 2024. *San José Mineta International Airport: Airport Land Use Compatibility Plan, Santa Clara County*. March 27, 2024. Available: https://stgenpln.blob.core.windows.net/document/ALUC_SJC_CLUP.pdf. Accessed December 19, 2024.

USEPA (U.S. Environmental Protection Agency). 1974. *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March 1974.

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3.14 Population and Housing

This section evaluates the Project's potential impacts on population and housing. It presents information about the environmental and regulatory setting, 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 for the EIR. **Appendix B***, Scoping Report*, includes all 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 area is located in the cities of Fremont, Milpitas, San José, and Santa Clara, within Alameda and Santa Clara counties. These cities border the southern portion of the San Francisco Bay and consist of primarily urban and built-up land. 2024 population estimates for the cities of Fremont, Milpitas, San José, and Santa Clara and Alameda and Santa Clara counties are provided in **Table 3.14-1**, *2024 Population Estimates in Project Area*.

TABLE 3.14-1
2024 POPULATION ESTIMATES IN PROJECT AREA

Population	City of Fremont	City of Milpitas	City of San José	City of Santa Clara	Alameda County	Santa Clara County
Total Population	229,250	81,773	969,491	132,048	1,641,869	1,903,196

SOURCE: CDOF 2024a

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 the cities of Fremont, Milpitas, San José, and Santa Clara and Alameda and Santa Clara counties. As demonstrated in Table 3.14-2, Alameda and Santa Clara counties have experienced steady growth over the past decade, with projections indicating continued population increases over the next decade (CDOF 2022, 2024a, 2024b). Although some notable fluctuations in population have occurred in recent years, the cities within the Project area have also experienced similar long-term growth (ABAG 2018).

TABLE 3.14-2
HISTORIC AND PROJECTED POPULATION GROWTH IN THE PROJECT AREA FROM 2010–2035

Area	2010 Population	2020 Population	% Change 2010–2020	Projected 2035 Population	Projected % Change 2020–2035
City of Fremont	214,089	230,504	7.7	255,755	11.0
City of Milpitas	66,790	81,725	22.4	97,295	19.1
City of San José	945,942	1,012,452	7.0	1,283,360	26.8
City of Santa Clara	116,468	127,874	9.8	151,715	18.6

TABLE 3.14-2
HISTORIC AND PROJECTED POPULATION GROWTH IN THE PROJECT AREA FROM 2010–2035

Area	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
Santa Clara County	1,781,642	1,936,259	8.7	1,970,997	1.8

SOURCE: ABAG 2018; CDOF 2022; CDOF 2024a; CDOF 2024b

3.14.1.2 Labor Force and Local Unemployment Rates

As of September 2024, the labor force for construction personnel in the Oakland–Hayward–Berkley Metropolitan Division (Alameda and Contra Costa counties) was 77,500 workers, according to the California Employment Development Department. The labor forces for trade, transportation, and utilities for that region totaled 199,900 people, while the labor force for financial activities totaled 49,500 people, and the labor force for manufacturing totaled 107,900 people (EDD 2024a). In the San José–Sunnyvale–Santa Clara Metropolitan Service Area (San Benito and Santa Clara counties), the labor force for construction personnel was 51,700 people as of September 2024 (EDD 2024b). In September 2024, the unemployment rates for Alameda and Santa Clara counties were 4.7 percent and 4.1 percent, respectively, which was lower than the state unemployment rate of 5.4 percent (EDD 2024c, 2024d).

3.14.1.3 Housing

According to the California Department of Finance, at the beginning of 2024, Alameda County had an estimated 647,509 total housing units with a vacancy rate of approximately 4.9 percent. Santa Clara County had an estimated 705,646 total housing units with a vacancy rate of approximately 4.7 percent. The vacancy rate was 3.9 percent in the city of Fremont, 2.8 percent in the city of Milpitas, 4.0 percent in the city of San José, and 6.4 percent in the city of Santa Clara (CDOF 202e). In addition to existing rental and owned housing, numerous hotels and motels in the Project area are available for temporary overnight accommodation. **Table 3.14-3**, *2024 Housing Data Estimates in the Project Area*, provides the 2024 housing data estimates for the cities of Fremont, Milpitas, San José, and Santa Clara and Alameda and Santa Clara counties.

TABLE 3.14-3
2024 HOUSING DATA ESTIMATES IN THE PROJECT AREA

Area	Total Housing Units	Occupied Housing Units	Vacant Housing Units	Vacancy Rate (percent)
Alameda County	647,509	615,624	31,885	4.9%
Santa Clara County	705,646	672,611	33,035	4.7%
The City of Fremont	81,348	78,206	3,142	3.9%
The City of Milpitas	25,932	25,202	730	2.8%
The City of San José	347,148	333,412	13,736	4.0%
The City of Santa Clara	53,519	50,104	3,415	6.4%

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 population projections from California Department of Finance and regional population forecasts. The Association of Bay Area Governments (ABAG) is the designated Metropolitan Planning Organization and Regional Transportation Planning Agency for the Bay Area, which includes the nine counties surrounding the San Francisco Bay, including Alameda and Santa Clara. Although ABAG does not have a direct regulatory role, it conducts regular planning efforts for the region to fulfill its obligations, implement state regulations, and support its member agencies. In its role as a state designated regional planning agency, ABAG prepares a Regional Housing Needs Allocation (RHNA) Plan during each 8-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 RHNA Plan (Sixth Cycle) covered the period of 2023–2031. It is anticipated that the population in Alameda and Santa Clara counties will continue to increase over this timeframe. To meet the projected near-term housing needs, ABAG has 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 Fremont

The City of Fremont's Housing Element (City of Fremont 2023) includes the following goal and policies related to population and housing that are relevant to the Project:

Goal 1: Preserve, Maintain, and Improve the Existing Housing Supply.

***Policy 1.01*:** Identify and Remedy Substandard Housing Conditions.

***Policy 1.02*:** Facilitate Improvement of Existing Housing Stock.

***Policy 1.03*:** Improve Infrastructure within Existing Residential Neighborhoods

***Policy 6.01*:** Maintain Consistency with Regional and State Housing Plans and Laws.

The City of Fremont's General Plan Land Use Element (City of Fremont 2011) includes the following policies related to population and housing that are relevant to the Project:

Policy 2-1.1: Fremont's Regional Identity. Create a positive regional identity for Fremont as a major San Francisco Bay Area city known for its outstanding neighborhoods, shopping areas, public facilities, parks, and employment districts. As the Bay Area's fourth largest city in population and its second largest in land area, Fremont should continue to evolve into a major regional destination with a distinct cultural and civic identity and a reputation for reinventing the suburban development model.

Policy 2-1.4: Neighborhoods. Sustain and enhance Fremont's neighborhoods as the basic "building blocks" of the community. Fremont's neighborhoods should accommodate a high quality of life by providing diverse housing choices, safe and walkable streets, and convenient access to services, schools, and parks. While the basic pattern of land uses in most neighborhoods is set, over time the City's residential areas will adapt and evolve to reflect Fremont's vision for a more sustainable future.

City of Milpitas

The City of Milpitas's Housing Element (City of Milpitas 2023) includes the following goal and policies related to population and housing that are relevant to the Project:

Goal HE-1: Maintain adequate sites to accommodate the City's share of the regional housing need, including sites that are appropriate for the development of housing affordable to extremely low-, very low-, low-, moderate-, and above moderate-income households through appropriate land use and zoning.

***Policy HE 1.1*:** Monitor residential development projects to ensure there is an adequate level of remaining development capacity through the housing sites inventory.

***Policy HE 1.3*:** Require new residential development projects and mixed-use development projects with a residential component to meet or exceed minimum residential densities to ensure efficient use of remaining land available.

***Policy HE 1.4*:** Continue to facilitate housing production through implementation of specific plans and overlay zones, including the Milpitas Metro Specific Plan (Transit Area Specific Plan [TASP] Update) and Gateway-Main Street Specific Plan (Milpitas Midtown Update).

***Policy HE 1.5*:** Facilitate the development of housing through the adoption of new zoning districts consistent with the General Plan, zoning incentives or waivers, development process streamlining, and California Environmental Quality Act (CEQA) findings of consistency, especially affordable housing in high resource areas.

***Policy HE 2.3*:** Upgrade and replace infrastructure as needed to encourage reinvestment in neighborhoods; place priority on improvements in lower- and moderate-resource neighborhoods.

The City of Milpitas's General Plan (City of Milpitas 2021) includes the following policy related to population and housing that are relevant to the Project:

> ***UCS 6-1*:** Work cooperatively with utility providers to ensure the provision of adequate electric power and natural gas services and facilities to serve the needs of existing and future residents and businesses.

City of San José

The City of San José's General Plan (City of San José 2024) includes the following goals and policy related to population and housing that are relevant to the Project:

> **Goal 1:** An abundant and affordable housing stock.
>
> **Goal 2:** Sufficient housing for people experiencing homelessness.
>
> **Goal 3:** Housing stability and opportunities to build wealth for all residents.
>
> **Goal 4:** Healthy, thriving neighborhoods with access to good jobs, schools, transportation, and other resources.
>
> **Goal 5:** Racially and socially inclusive neighborhoods that overcome past and present discrimination
>
> > ***Policy IE-3.3*:** Work at the regional level to promote a shared responsibility for sufficient housing supply to accommodate the changing demographics and a growing population.

City of Santa Clara

The City of Santa Clara's Housing Element (City of Santa Clara 2024) includes the following goal and policies related to population and housing that are relevant to the Project:

> **Goal A:** Create and maintain high-quality, livable, and diverse housing stock within the City of Santa Clara.
>
> > ***Policy A-1*:** Maintain and improve the quality of residential housing stock, address housing deficiencies and prevent future blight through the encouragement of ongoing maintenance, rehabilitation, and conservation of existing housing stock.
> >
> > ***Policy A-4*:** Seek collaborative efforts with regional entities and utility service providers to subsidize and incentivize residential energy and water conservation.
> >
> > ***Policy A-6*:** Engage with developers regarding the benefits of hiring local labor, hiring from or contributing to apprenticeship programs, increasing resources for labor compliance, and providing living wages.

The City of Santa Clara's General Plan (City of Santa Clara 2014) includes the following goals and policies related to population and housing that are relevant to the Project:

> **Goal 5.3.2-G1:** Equitable housing opportunities within the community for persons of all economic levels, regardless of religion, gender, sexual orientation, marital status, national origin, ancestry, familial status, race, color, age, source of income, or mental or physical disability.

Goal 5.3.2-G2: A variety of housing types, sizes, location, and tenure in order to maintain social and economic diversity in the City.

Goal 5.3.2-G3: Affordable housing units dispersed throughout the City to avoid a concentration in any one neighborhood.

***Policy 5.3.2-P2*:** Encourage higher-density residential development in transit and mixed-use areas and in other locations throughout the City where appropriate.

***Policy 5.3.2-P3*:** Encourage below-grade parking and parking structures for development in Medium Density and High-Density designations.

***Policy 5.3.2-P6*:** Provide adequate choices for housing tenure, type, and location, including higher density, and affordability for low- and moderate-income and special needs households.

***Policy 5.3.1-P9*:** Require that new development provide adequate public services and facilities, infrastructure, and amenities to serve the new employment or residential growth.

3.14.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the project by LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for the portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.14.3.1 LSPGC Applicant-Proposed Measures

LSPGC has proposed no Applicant-proposed measures (APMs) pertaining to population and housing within LSPGC's portion of the Project.

3.14.3.2 PG&E Best Management Practices and Field Protocols

PG&E has proposed no best management practices or field protocols pertaining to population and housing within PG&E's portion of the Project.

3.14.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to population and housing within SVP's portion of the Project.

3.14.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, the Project would result in significant population and housing impacts 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 2.14, *Anticipated Permits and Approvals*, as well as the applicable regulations related to population and housing, as described in Section 3.14.2.

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 induce substantial unplanned population growth in an area. Throughout the Project's 26-month construction schedule, there would be up to 200 construction workers at peak activity, though the average number of workers would be lower, as noted in Section 2.9.1, *Construction Workforce*. The construction personnel would likely commute from the Greater Bay Area. LSPGC expects to

use its existing employees, hire local construction specialists and electrical contractors, or hire construction specialists and electrical contractors that would temporarily reside in the area. This 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.

The cities of Fremont, Santa Clara, and San José have relatively high housing vacancy rates, ranging from 3.9 to 6.4 percent. Therefore, even if up to 200 construction workers choose to stay near the Project area more permanently, housing would be available to accommodate them. It is anticipated that a small number of construction workers may choose to do this. Existing housing can accommodate the temporary influx of construction employees at various times over the 26-month construction period. Additionally, existing businesses and services can absorb the temporary increase in population. Therefore, the potential short-term population growth caused by the Project's construction phase would have a **less-than-significant** impact.

Operations and Maintenance

As detailed in Section 2.11.2, *System Controls and Operation Staff*, LSPGC would hire only one technician to be located near the Project site to perform routine inspections, monitoring, and repairs. The addition of one permanent job is not considered substantial, nor would it be unplanned growth as the Project is anticipated to be consistent with existing plans regarding population growth in the area, as provided in Section 3.14.2, *Regulatory Setting.* Furthermore, the Project 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 produce a concentration of people above what is assumed in regional and local land use plans or what is projected by regional planning authorities. This could occur because adding infrastructure to an area can result in unplanned, indirect population and housing growth. With a more reliable California Independent System Operator-controlled grid, the Project could potentially lead to growth that exceeds the predictions of local and regional land use plans. An indirect increase in population due to the increased reliability of the region's energy grid from the Project could contribute to unplanned growth. However, it is not typical for an area to experience population growth solely because of a more reliable electrical grid. Other factors, such as water supply, are more closely tied to and can more substantially influence population growth. The Project is designed to increase reliability and accommodate existing and planned electrical load, not to induce unplanned growth. Therefore, 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.

The Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, therefore, there would be no impact. (*No Impact*)

Implementation of the Project would not require the displacement of any residential housing units or the displacement of people or occupied structures. The Project, which includes the proposed transmission lines and substation modifications, 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.

3.14.6 Cumulative Effects Analysis

3.14.6.1 Criterion a)

Impact C.3.14-1: The Project, in combination with the cumulative projects, 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*)

As discussed in Impact 3.14-2, throughout the Project's 26-month construction schedule, there would be up to 200 construction workers at peak activity, though the average number of workers would be lower. Relative to the housing vacancy rates in the cities of Fremont, Santa Clara, and San José, which range from 3.9 to 6.4 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 is not anticipated to result in direct population growth impacts as 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. Relative to indirect population growth in the area, 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. 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 a number of residential developments that would occur in the Project's vicinity, including, but not limited to, 3300 Innovation Way, 1880 N Milpitas Boulevard, and 1355 California Circle, among other current and future residential developments. While these cumulative projects, including the Project, could result in substantial population growth in area, either directly or indirectly, 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. In other words, should the Project and cumulative projects be approved, it is anticipated that they would have received consistency approval from applicable local jurisdictions, and therefore, such impacts related to population growth would be planned. For these reasons, the Project, in combination with the cumulative projects, 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

ABAG (Association of Bay Area Government). 2018. *Plan Bay Area Projections 2040.* Available: https://mtc.ca.gov/sites/default/files/Projections_2040-ABAG-MTC-web.pdf. Accessed on February 25, 2025.

ABAG (Association of Bay Area Government).2022. *Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area, 2023–2031.* Available: Final RHNA Methodology Report 2023-2031_update_11-22.pdf. Accessed October 28, 2024.

CDOF (California Department of Finance). 2022. E-4 Population Estimates for Cities, Counties, and the State, 2011–2020 with 2010 Census Benchmark. Available: https://dof.ca.gov/forecasting/demographics/estimates/estimates-e4-2010-2020/. Accessed October 28, 2024.

CDOF (California Department of Finance). 2024a. State's Population Increases While Housing Grows Per Demographic Report. Available: https://dof.ca.gov/forecasting/demographics/estimates-e1/. Accessed October 28, 2024.

CDOF (California Department of Finance). 2024b. Total Population Projections, 2020–2070. Available: https://dof.ca.gov/forecasting/demographics/projections/. Accessed on October 28, 2024.

CDOF (California Department of Finance). 2024c. City/County Population and Housing Estimates. Available: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2024/. Accessed October 28, 2024.

City of Fremont 2011. *City of Fremont General Plan.* Adopted December 2011. Available: https://www.fremont.gov/government/departments/community-development/planning-building-permit-services/plans-maps-guidelines/general-plan. Accessed October 28, 2024.

City of Fremont 2023. *City of Fremont Housing Element 2023–2031.* Certified on March 22, 2023. Available: https://www.fremont.gov/government/departments/community-

development/planning-building-permit-services/plans-maps-guidelines/general-plan/housing-element. Accessed October 28, 2024.

City of Milpitas 2021. *City of Milpitas General Plan 2040.* Adopted March 9, 2021. Available: https://www.milpitas.gov/370/Milpitas-2040-General-Plan. Accessed October 28, 2024.

City of Milpitas 2023. *City of Milpitas 2023–2031 Housing Element.* Adopted January 24, 2023. Available: https://milpitashousingelement.com/. Accessed October 28, 2024.

City of San José 2024. *Envision San José 2040 General Plan*. Adopted November 1, 2011; As Amended on October 24, 2024. Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan. Accessed October 28, 2024.

City of Santa Clara 2014. *City of Santa Clara 2010–2035 General Plan*. Adopted on November 16, 2010; Updated on December 9, 2014. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed October 28, 2024

City of Santa Clara 2024. *City of Santa Clara 2023–2031 Housing Element*. Adopted May 7, 2024. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan/housing-element-update. Accessed October 28, 2024.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

EDD (Employment Development Department). 2024a. Oakland–Hayward–Berkley Metropolitan Division. Available: https://labormarketinfo.edd.ca.gov/data/employment-by-industry.html. Accessed October 2024.

EDD (Employment Development Department).2024b. San José–Sunnyvale–Santa Clara Metropolitan Statistical Area. Available: https://labormarketinfo.edd.ca.gov/data/employment-by-industry.html. Accessed on October 28, 2024.

EDD (Employment Development Department). 2024c. Historical Civilian Labor Force Alameda County. Available: https://labormarketinfo.edd.ca.gov/geography/alameda-county.html. Accessed October 28, 2024.

EDD (Employment Development Department). 2024d. Historical Civilian Labor Force Santa Clara County. Available: https://labormarketinfo.edd.ca.gov/geography/santaclara-county.html. Accessed October 28, 2024.

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3.15 Public Services

This section evaluates the Project's potential impacts on public services. It includes information about the environmental 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 public services analyzed in this section include fire protection, emergency medical services, police protection, schools, and other public 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 EIR. **Appendix B***, Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to public services.

3.15.1 Environmental Setting

The Project area serves communities in the cities of Fremont, Milpitas, San José, and Santa Clara within Alameda and Santa Clara counties. The public services facilities serving these communities include fire departments, law enforcement, medical, schools, and other public services facilities, as depicted in **Figure 3.15-1**, *Public Services*.

3.15.2 Regional Setting

3.15.2.1 Fire Protection and Emergency Medical Services

Fremont Fire Department

The City of Fremont Fire Department (FFD) provides fire and emergency services for over 230,000 people across 92 square miles in the city of Fremont. The FFD operates 11 stations, and Fire Stations 5, 7, and 11 are closest to the Project's transmission line. The FFD has 172 employees, including 146 sworn personnel. In 2023, FFD responded to 18,334 total incidents. The fleet includes 11 fire engines and two ladder trucks, both equipped for Advanced Life Support. The FFD has a response time of 6 minutes for 81.3 percent of calls (FFD 2024).

City of Milpitas Fire Department

The Milpitas Fire Department (MFD) provides fire and emergency services to the City's 81,773 residents. The MFD operates four stations, and Fire Station 3 is closest to the Project. The MFD has 82 employees, including 63 personnel in the operations division, which handles emergency responses to fires, medical emergencies, vehicle accidents, specialized rescues, hazardous material releases, and other risks affecting the health and welfare of the community. In 2023, the MFD responded to 6,782 fire service calls with an average response time of 8 minutes and 24 seconds (MFD 2024).

SOURCE: ESA, 2024; CEC, 2024

Power the South Bay Project

Figure 3.15-1
Public Services

City of San José Fire Department

The San José Fire Department (SJFD) provides fire services, including fire suppression, advanced life support, urban search and rescue, and hazardous material response. These services cover over 200 square miles and serve 1.2 million people. The SJFD responds to roughly 109,000 service calls a year, protecting residential, commercial, industrial, wildland-urban interface areas, and the San Francisco Bayfront. The SJFD staffs about 650 sworn personnel and uses 33 Type 1 fire engines and 9 ladder trucks. The SJFD has 34 fire stations throughout the city of San José, and the closest to the Project is Fire Stations 25 and 29 (SJFD 2023).

City of Santa Clara Fire Department

The City of Santa Clara Fire Department (SCFD) provides emergency services, fire suppression, hazardous materials response, and more to a population of 129,185. The jurisdiction covers approximately 19.3 square miles. The SCFD responded to 10,586 calls in 2023, and about 7,649 calls were for emergency medical services. The SCFD operates nine fire stations, with a tenth set to open in 2025, and has eight fire engines and two ladder trucks. The SCFD has 169 full-time personnel and achieved a response time of 4 minutes and 44 seconds for 90 percent of the calls (SCFD 2024).

3.15.2.2 Police Protection

California Highway Patrol

The California Highway Patrol is a law enforcement agency created in 1929 to provide uniform traffic law enforcement for the state of California. The California Highway Patrol has jurisdiction over all interstates and state routes in the Project area, including State Routes 237 and 262, and Interstates 680 and 880. The Project area is served by the California Highway Patrol Golden Gate Division. The nearest office is located at 2020 Junction Avenue, San José (CHP 2023).

Fremont Police Department

The Fremont Police Department (FPD) has a staff of 204 sworn personnel and serves a population of about 230,000. The FPD has one station located at 2000 Stevenson Blvd, Fremont. The FPD divides the City into three patrol zones, and the Project would be located in zone three. In 2023, the FPD filed 16,889 original police reports and made 2,322 total arrests, with dispatchers answering roughly 815 calls a day (FPD 2024).

Milpitas Police Department

The Milpitas Police Department (MPD) has a staff of 94 sworn officers and serves a population of almost 80,000. The MPD station is located at 1275 Milpitas Blvd, Milpitas. In 2023, the MPD responded to 23,477 calls and made 2,302 arrests. Additionally, the MPD filed 7,968 police reports and had an average response time of 2 minutes and 51 seconds (MPD 2024).

San José Police Department

The San José Police Department (SJPD) provides public safety services to nearly 1 million people. The SJPD staffs 1,173 sworn police personnel and responded to 635,700 emergency calls in 2023. The Project would be located within District A, where the SJPD responded to over

10,000 calls. In 2023, the average response time was 7.7 minutes for Priority One calls and 25.4 minutes for Priority Two calls. The number of arrests made in 2022 was 13,300, a significant decrease from 18,300 in 2023. The SJPD operates two police stations, and the closest to the Project is the headquarters station, located at 201 W. Mission Street, San José (SJPD 2024).

Santa Clara Police Department

The Santa Clara Police Department (SCPD) provides public safety to approximately 127,861 people. The SCPD has 232 full-time employees, including 153 sworn personnel. The SCPD responded to 42,265 calls and handled 12,527 self-initiated police calls. The SCPD carried out 2,700 arrests and had an average response time of 2 minutes and 35 seconds. The SCPD has two police stations, and the closest to the Project is located at 3992 Rivermark Parkway, Santa Clara (SCPD 2024).

3.15.2.3 Schools

The Project's transmission line would traverse three school districts: Fremont Unified School District, Milpitas Unified School District, and Santa Clara Unified School District. Fremont Unified School District is in the city of Fremont and serves 33,063 students across 43 schools. Milpitas Unified School District is in the city of Milpitas and serves 10,199 students across 15 schools. Santa Clara Unified School District is in the city of Santa Clara and North San José and serves 14,236 students across 29 schools. Further information can be found in **Table 3.15-1**, *School Districts in the Project's Vicinity* (U.S. News & World Report 2024a, 2024b).

TABLE 3.15-1
SCHOOL DISTRICTS IN THE PROJECT'S VICINITY

District	Area Served	Grades Served	Student-Teacher Ratio	Number of Students
Fremont Unified School District	City of Fremont	K-12	23:1	33,063
Milpitas Unified School District	City of Milpitas	K-12	23:1	10,199
Santa Clara Unified School District	City of Santa Clara and North San José	K-12	19:1	14,236

SOURCES: U.S. News & World Report 2024a, 2024b

3.15.2.4 Other Public Facilities

Libraries

The closest libraries to the Project area include the following:

- Alviso Branch Library, at 5050 N First St, San José, approximately 0.25 mile southeast of the Newark to NRS 230 kV AC transmission line.
- Milpitas Library, at 160 N Main St, Milpitas, 1.3 miles southeast of the Newark to NRS 230 kV AC transmission line.
- Northside Branch Library, at 695 Moreland Way, Santa Clara, 2 miles south of the Newark to NRS 230 kV AC transmission line.

Medical Facilities

Two medical facilities are near the Project area: Primary Care: Alviso Health Center, less than 0.5 mile from the Newark to NRS 230 kV AC transmission line and Urgent and Primary Care First Street, 0.6 mile southwest of the Newark to NRS 230 kV AC transmission line. Furthermore, there are many more medical facilities surrounding the Project within 2 miles of the Project's transmission line, including Stanford Express Care Clinic, Action Urgent Care, Valley Health Center Milpitas, and Kaiser Permanente Milpitas Medical Offices.

3.15.3 Regulatory Setting

3.15.3.1 Federal

No federal policies or regulations pertaining to public services would be applicable to the Project.

3.15.3.2 State

No state regulations would be applicable to the Project's analysis of public services.

3.15.3.3 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. As such, the following local policies and ordinances pertaining to public services that would otherwise be relevant to the Project and alternatives are described below for informational purposes only.

Fremont General Plan

The City of Fremont General Plan (City of Fremont 2011) includes the following goals and polices related to public services that would be relevant to the Project:

Goal 9-1: Public Facilities and Services. A range of public facilities and services to meet the needs of Fremont residents.

Policy 9-1.2: Public Safety Facilities. Ensure public safety facilities are added or expanded as necessary to keep pace with population growth and meet operational needs. Take into account the availability of both capital and operating funds when determining the timing of new and expanded facilities.

Policy 9-1.3: Provide Library, Cultural, and Community Facilities. Continue to provide library facilities and community centers, senior centers, and Family Resource Center to the community. Provide additional facilities and cultural facilities as funding allows.

Goal 9-6: Solid Waste Diversion. Waste diversion maximized with the long-term objective of eliminating landfill waste.

Policy 9-6.2: Protect Public Health and Safety. Implement waste diversion programs that protect public health and safety and the environment.

Goal 9-9: Educational Facilities. Quality educational opportunities and facilities available to the community.

Policy 9-9.1: Inform FUSD of Development Plans. Coordinate with FUSD so that the District Board and staff are aware of development plans.

Goal 9-10: School Site Traffic and Parking. Safe school sites implemented through sound parking and transportation management plans.

Goal 9-12: Programs Serving Fremont Youth. Effective and accessible health and human service programs

Milpitas General Plan

The City of Milpitas General Plan (City of Milpitas 2021) includes the following goals and policies related to public services that would be relevant to the Project:

Goal UCS-8: Enhance the quality of life for all city residents through the provision of cultural and social resources including quality schools, libraries, medical, and other community services and facilities.

***Policy UCS 8-1*:** Continue to strongly support and encourage the maintenance of high quality public and private schools and diverse educational opportunities in Milpitas and work cooperatively with MUSD, Berryessa Union High School District, and East Side Union School District to explore all local and state funding sources to secure available funding for new school facilities.

***Policy UCS 8-2*:** Encourage the planned financing of new school facilities concurrent with new development.

***Policy UCS 8-3*:** Consider opportunities for joint-use of facilities with the local school districts. When feasible, a joint-use agreement will be pursued to maximize public use of facilities, minimize duplication of services provided, and facilitate shared financial and operational responsibilities.

***Policy UCS 8-7*:** Support the provision of high quality civic, library, medical, and other community facilities in order to meet the broad range of needs within Milpitas.

Policy UCS 8-8: Support efforts by SCCLD to provide library services that meet the evolving educational and social needs of Milpitas residents.

***Policy UCS 8-11*:** Explore opportunities to expand library services and funding to areas within Milpitas.

***Policy UCS 8-15*:** Provide responsive and high-quality City government services to residents and businesses.

Goal SA-4: Maintain a safe community by providing efficient and high-quality police, fire, and emergency services.

***Policy SA 4-1*:** Provide adequate funding for police and fire facilities and personnel to accommodate existing and future citizens' needs to ensure a safe and secure environment for people and property throughout the city.

***Policy SA 4-9*:** Ensure that fire and emergency medical services meet existing and future demand by maintaining a response time of four minutes or less for all urban service areas.

***Policy SA 4-10*:** Ensure that adequate water supplies are available for fire suppression throughout the City. Require development to construct and fund all fire suppression infrastructure equipment needed to provide adequate fire protection services to new development.

Santa Clara General Plan

The City of Santa Clara General Plan (City of Santa Clara 2014) includes the following policies related to public services that would be relevant to the Project:

***Policy 5.9.3-P2*:** Provide police and fire services that respond to community goals for a safe and secure environment for people and property.

***Policy 5.9.3-P3*:** Maintain a City-wide average three minute response time for 90 percent of police emergency service calls.

***Policy 5.9.3-P4*:** Maintain a City-wide average three minute response time for fire emergency service calls.

***Policy 5.9.3-P5*:** Maintain emergency traffic preemption controls for traffic signals.

***Policy 5.9.3-P6*:** Maintain the fire and hazardous materials mutual aid agreements with surrounding jurisdictions.

***Policy 5.10.5-P28*:** Continue to require all new development and subdivisions to meet or exceed the City's adopted Fire Code provisions.

San José General Plan

The City of San José General Plan (City of San José 2011) includes the following policies related to public services that would be relevant to the Project:

***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.

***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.

***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-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-3.10*:** 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.

***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.

3.15.4 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the project by LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for the portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the

dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.15.4.1 LSPGC Applicant-Proposed Measures

LSPGC has identified the following Applicant proposed measure (APM) to minimize impacts related to public services for the Project. The analysis assumes that the following APMs would be implemented by LSPGC as part of their portion of work for the Project.

- **APM TRA-1: Traffic Control Plan**. LSPGC shall prepare a Traffic Control Plan (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. A copy of the TCP shall be provided to CPUC for recordkeeping.

3.15.4.2 PG&E Best Management Practices and Field Protocols

PG&E has proposed no best management practices or field protocols pertaining to mineral resources within PG&E's portion of the Project.

3.15.4.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to mineral resources within SVP's portion of the Project.

3.15.5 Significance Criteria

According to Appendix G of the *CEQA Guidelines*, except as provided in Public Resources Code Section 21099, the Project would result in significant public services impacts if it would do any of the following:

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 any of the following public services:

   i) Fire protection.

   ii) Police protection.

   iii) Schools.

iv) Parks.

v) Other public facilities.

3.15.6 Direct and Indirect Effects

3.15.6.1 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, state, and federal 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.

3.15.6.2 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 schools, parks, or other public facilities. (*No Impact*)

Schools

As discussed in Section 3.14, *Population and Housing*, the Project would not result in substantial increases in the local population or demand for housing, which typically are associated with an increased demand for public school services. Therefore, the Project would not result in a substantial increase in demand for school facilities and would not require the construction of a new school or modification of an existing school, the construction of which could cause environmental effects. There would be no impact.

Parks

For the reasons described in Section 3.16, *Recreation*, which describes the Project's potential to cause impacts with respect to the accelerated deterioration of park facilities and the construction of new park facilities, the Project would not require the construction of new parks or modification of existing parks, the construction of which could cause significant environmental effects. There would be no impact.

Other Public Facilities

The Project would not result in substantial adverse impacts to other public facilities, such as public libraries, hospitals, or other civic uses. 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 public facilities. Although unlikely, it is possible that Project construction could result in a minor increased use of other types of public services, such as medical facilities and libraries. However, these increases would not be substantial and would not necessitate the construction of new public facilities or the modification of existing public facilities, the construction of which could cause significant environmental effects. There would be no impact.

Impact 3.15-1: 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 and police protection. (*Less than Significant with Mitigation*)

Construction

Project construction could result in situations that require emergency response services, including fire and police protection. Further, during these emergency situations, temporary lane closures during construction activities could result in delays that could affect emergency response times. However, these delays would not require the construction of new or altered facilities since, as provided in Section 3.15.1, there are adequate existing fire and police protection services in the Project area. For additional discussion about construction-related lane closures and associated impacts on emergency response, see Impact 3.17-3 in Section 3.17, *Transportation*.

As indicated in Section 2.9, LSPGC anticipates that the Project's construction would take approximately 26 months and require up to 200 workers, however, on average, workforce on-site during active work sites through the Project alignment would be less. It is likely that all temporary positions would be filled from the local 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, they would not increase short-term demand for fire or police protection services to the extent that new or physically altered facilities would be required.

With respect to police protection services, staging areas would be fenced to restrict public access and additional security measures would also be implemented during construction. Additional security measures include security lighting and fencing at the construction staging areas and substations. These measures are anticipated to deter unlawful activities and the associated need for police services. Nonetheless, even with such measures in place, police response may be required. Similarly, while events that require fire protection services are not anticipated during Project construction, there is a possibility that such services may still be needed.

It is anticipated, however, that this potential increase in demand for fire and protection would be negligible, particularly in consideration of existing fire and police services in the area. Further,

Project construction, by nature, is temporary and upon completion the Project would not require fire or police services. Therefore, the Project would not necessitate the construction of new or physically altered fire or police protection facilities to maintain acceptable service ratios, response times, or other performance standards.

As discussed in Section 3.17, a traffic control plan and coordinated traffic control plan would be implemented in accordance with APM TRA-1 and **Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan**. The traffic control plan(s) would include measures to control construction traffic-related impacts, minimize traffic congestion, reduce potential vehicular conflicts, and maintain traffic safety, in accordance with the policies outlined above. Therefore, for the reasons previously discussed, and with implementation of APM TRA-1 and Mitigation Measure 3.17-2a, Project construction effects related to fire and police protection services would be mitigated to a **less-than-significant** impact.

Operation and Maintenance

Once operational, the Project facilities would be primarily operated remotely; however, these facilities would continue to require routine maintenance, inspections, and occasional repairs. Periodic maintenance and repairs would occur in accordance with CPUC General Order 165 vegetation clearance requirements and other applicable regulations. While emergency situations requiring fire and police protection services could occur during the operation and maintenance phase, such situations would be infrequent and could be addressed by existing providers. Access routes would be restored to pre-construction conditions and would not be obstructed by the Project's presence. Occasional accidents or incidents that could occur would not generate a level of demand for fire or police protection services that necessitate new facilities. The local protection facilities (described in Section 3.15.1, *Environmental Setting*) that would serve the Project in an emergency are already in place and are not expected to change as a result of the Project. For these reasons, Project operations would have no impact on fire and police protection services.

Impact Summary

Project construction would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities. Additionally, it would not necessitate the creation of new or physically altered governmental facilities, which 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. Therefore, with the implementation of APM TRA-1 and Mitigation Measure 3.17-2a, the impact on police and fire response times as a result of temporary lane closures would be mitigated to **less than significant**.

Mitigation: Implement Mitigation Measure 3.17-2a.

Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan

LSPGC shall coordinate with Project proponents, contractors, and local agencies, as applicable, for other construction projects in the Project's vicinity that may temporally overlap with Project construction, including, but not limited to, 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 the Project's traffic control plan with other traffic control plans prepared for nearby projects. The other projects' traffic control plans shall be cited in the Project's traffic control plan, as applicable.
- 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:
  - Full and partial roadway closures.
  - Circulation and detour plans to include 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 at least 30 days before the start of construction.

Significance after Mitigation: The implementation of APM TRA-1 and Mitigation Measure 3.17-2a would ensure that impacts related to this criterion would be less than significant.

3.15.7 Cumulative Effects Analysis

3.15.7.1 Criterion a)

As concluded under Criterion a, the Project would have no impact on schools, parks, or other public facilities since the Project would not require the construction of new parks or modification of existing parks and would not result in a substantial increase in the local population such that additional school facilities or other public facilities such as libraries, hospitals, or other civic uses would be needed. Therefore, there would be no incremental impact that would be considerable, and no cumulative impacts regarding schools, parks, or other public facilities would occur associated with the Project. (*No Impact*)

Impact C.3.15-1: The Project, in combination with the cumulative projects, 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 and police protection. (*Less than Significant with Mitigation*)

As discussed in Impact 3.15-1, the Project would have a less-than-significant impact on the provision of fire and police protection services. Cumulative projects could have overlapping construction schedules, therefore, may also require fire or police protection services simultaneously. Further, it is likely that some of the cumulative projects may also require temporary lane closures, which could affect emergency response times. In the event that the Project, in combination with the cumulative projects, require fire or police protection services and temporary lane closures at the same time, there could be a cumulative impact on acceptable service ratios, response times, or other performance objectives for fire and police protection.

As provided in Section 3.15.1, there are adequate fire and police protection services within each local jurisdiction. The Project, as discussed in Section 3.17, would implement APM TRA-1 and Mitigation Measure 3.17-2, which would require the Project to coordinate with local law enforcement and fire protection agencies, as well as emergency service providers. The cumulative projects are also anticipated to undergo consistency reviews with applicable local jurisdictions, and such processes would address emergency service measures and providers. For these reasons, the Project, in combination with the cumulative projects, would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, and this cumulative impact would be **less than significant**.

Mitigation: Implement Mitigation Measure 3.17-2.

Significance after Mitigation: Implementation of APM TRA-1 and Mitigation Measure 3.17-2 would ensure that cumulative impacts related to acceptable service ratios, response times, or other performance objectives for fire and police protection would be less than significant.

3.15.8 References

CHP (California Highway Patrol). 2023. About Us. Available: https://www.chp.ca.gov/home/about-us. Accessed November 19, 2024.

City of Fremont. 2011. *City of Fremont General Plan.* Adopted December 2011. Available: https://www.fremont.gov/government/departments/community-development/planning-building-permit-services/plans-maps-guidelines/general-plan. Accessed November 12, 2024.

City of Milpitas. 2021. *General Plan 2040*. Adopted March 9, 2021. Available: https://www.milpitas.gov/370/Milpitas-2040-General-Plan. Accessed November 12, 2024.

City of San José. 2011. *Envision San José 2040 General Plan*. Adopted November 1, 2011; amended on October 24, 2024. Available: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan. Accessed November 12, 2024.

City of Santa Clara. 2014. *City of Santa Clara 2010-2035 General Plan.* Adopted on November 16, 2010; updated on December 9, 2014. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed November 12, 2024.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

FFD (Fremont Fire Department). 2024. *2023 Annual Report.* Available: https://www.fremont.gov/government/departments/fire/annual-report. Accessed November 12, 2024.

FPD (Fremont Police Department). 2024. *2023 Annual Report*. Available: https://www.fremontpolice.gov/about-us/transparency-portal/yearly-summaries. Accessed November 12, 2024.

MFD (Milpitas Fire Department). 2024. *2024–2025 Adopted Budget & Financial Plan.* Available:https://www.milpitas.gov/DocumentCenter/View/6349/2024-2025-Adopted-Budget-PDF. Accessed December 11, 2024.

MPD (Milpitas Police Department). 2024. *Annual Report 2023.* Available: https://ca-milpitas.civicplus.com/1110/Annual-Reports. Accessed November 12, 2024.

SCFD (Santa Clara Fire Department). 2024. *City of Santa Clara Fire Department Annual Report 2023*. Available: https://www.santaclaraca.gov/our-city/departments-a-f/fire-department/about-us. Accessed November 12, 2024.

SCPD (Santa Clara Police Department). 2024. Santa Clara Police Department Fact Sheet. Available: https://www.santaclaraca.gov/our-city/departments-g-z/police-department/about-us/fact-sheet. Accessed November 12, 2024.

SJFD (San José Fire Department). 2023. About SJFD. Available: https://www.sanjoseca.gov/your-government/departments-offices/fire-department/about-sjfd. Accessed November 12, 2024.

San Jose Police Department (SJPD). 2025. Department Information. Available: https://www.sjpd.org/about-us/inside-sjpd/department-information. Accessed February 25, 2025.

U.S. News & World Report. 2024a. Fremont Unified School District. Available: https://www.usnews.com/education/k12/california/districts/fremont-unified-111898. Accessed November 12, 2024.

U.S. News & World Report. 2024b. Milpitas Unified School District. Available: https://www.usnews.com/education/k12/california/districts/milpitas-unified-103272. Accessed November 12, 2024.

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.

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. The CPUC received one scoping comment from the Santa Clara Valley Water District (Valley Water) pertaining to recreation, among other issues of concern. Valley Water noted that the proposed route crosses the Coyote Creek Trail and the Guadalupe River Trail, which are both located on Valley Water property. Valley Water suggested that impacts to these two trails should be analyzed within the recreation section of the EIR. Copies of all scoping letters are provided in **Appendix B**, *Scoping Report*.

3.16.1 Environmental Setting

3.16.1.1 Regional Setting

This section covers the recreational and open space resources in the Project area. Local, state, and federal agencies offer a wide variety of recreational activities within the cities of Fremont, Milpitas, San José, and Santa Clara, and Alameda and Santa Clara counties. The parks, trails, and recreational areas within 1 mile of the Project sites and alignments are listed in **Table 3.16-1**, *Recreational Areas and Facilities within 1 Mile of the Project*, and their locations are depicted in **Figures 3.16-1A** and **3.16-B**, *Recreational Facilities*. The following table and figures provide detailed descriptions of the recreational areas and facilities by jurisdiction.

TABLE 3.16-1
RECREATIONAL AREAS AND FACILITIES WITHIN 1 MILE OF THE PROJECT

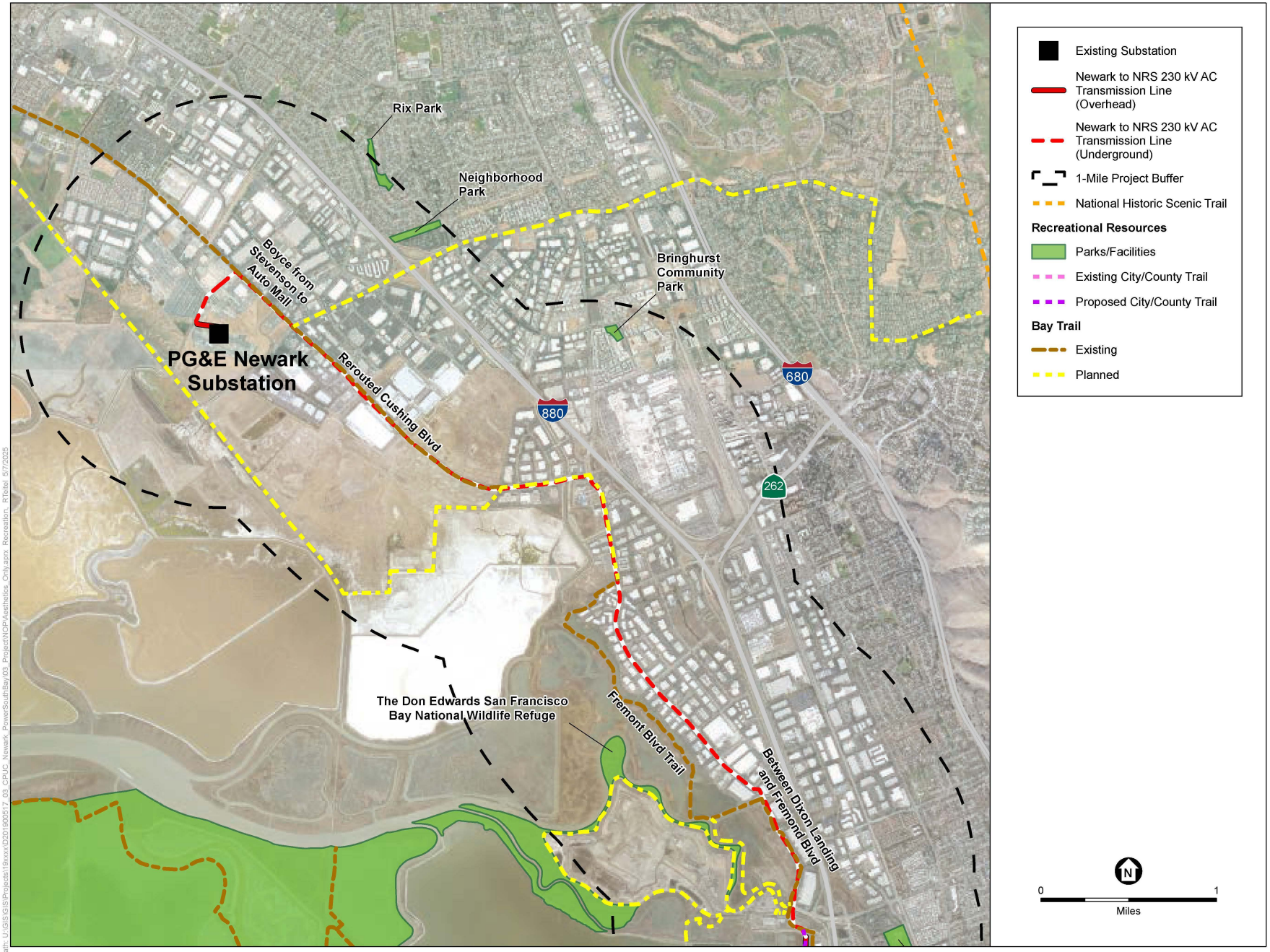
Recreational Area/Facility	Managing Agency	Nearest Project Component Site or Alignment	Distance from Nearest Project Component Site/Alignment
San Francisco Bay Trail and the Juan Bautista de Anza National Historic Trail	Association of Bay Area Governments and the Metropolitan Transportation Commission	Newark to NRS 230 kV AC Transmission Line	0.5 mile/ Intersects with
Coyote Creek Trail	National Park Service	Newark to NRS 230 kV AC Transmission Line	Adjacent to/ intersects with
Santa Clara Police Activities League (SCPAL) Bicycle Motocross (BMX) Track	Santa Clara Police Activities League	Newark to NRS 230 kV AC Transmission Line	Adjacent to
Levi's Stadium	Santa Clara Stadium Authority	SVP NRS 230 kV Substation	Adjacent to
Guadalupe River Trail	National Park Service	Newark to NRS 230 kV AC Transmission Line	0.5 mile/ intersects with
Alviso Park	City of San José Parks and Recreation	Staging Area 9	450 feet
Don Edwards San Francisco Bay National Wildlife Refuge	U.S. Fish and Wildlife Service	Newark to NRS 230 kV AC Transmission Line	500 feet

TABLE 3.16-1
RECREATIONAL AREAS AND FACILITIES WITHIN 1 MILE OF THE PROJECT

Recreational Area/Facility	Managing Agency	Nearest Project Component Site or Alignment	Distance from Nearest Project Component Site/Alignment
Youth Soccer Park	City of Santa Clara Parks and Recreation	Newark to NRS 230 kV AC Transmission Line	600 feet
Topgolf	Privately owned	Newark to NRS 230 kV AC Transmission Line	700 feet
San Tomas Aquino Creek Trail	City of Santa Clara	Newark to NRS 230 kV AC Transmission Line	800 feet
California's Great American Amusement Park	Private: Cedar Fair Entertainment Company	SVP NRS 230 kV Substation	930 feet
Fairway Glen Park	City of Santa Clara Parks and Recreation	Newark to NRS 230 kV AC Transmission Line	0.2 mile
Fuller Street Park	City of Santa Clara Parks and Recreation	SVP NRS 230 kV Substation	0.3 mile
Lick Mill Park	City of Santa Clara Parks and Recreation	Newark to NRS 230 kV AC Transmission Line	0.3 mile
Ulistac Natural Area	City of Santa Clara Parks and Recreation	Newark to NRS 230 kV AC Transmission Line	0.3 mile
Agnew Park	City of Santa Clara Parks and Recreation	SVP NRS 230 kV Substation	0.5 mile
Dixon Landing Park	City of Milpitas Parks and Recreation	Newark to NRS 230 kV AC Transmission Line	0.5 mile
Vista Montaña Neighborhood Park	City of San José Parks and Recreation	Newark to NRS 230 kV AC Transmission Line	0.6 mile
Alviso Marina County Park	East Bay Regional Park	Staging Area 9	0.7 feet
Hall Memorial Park	City of Milpitas Parks and Recreation	Newark to NRS 230 kV AC Transmission Line	0.7 mile
Cerano Park	City of Milpitas Parks and Recreation	Staging Area 7	0.7 mile
Agnews Historic Park	City of Santa Clara Parks and Recreation	SVP NRS 230 kV Substation	0.8 mile
Lila Bringhurst Community Park	City of Fremont Parks and Recreation	Newark to NRS 230 kV AC Transmission Line	0.8 mile
Thamien Park	City of Santa Clara Parks and Recreation	SVP NRS 230 kV Substation	0.9 mile
Live Oak Park	City of Santa Clara Parks and Recreation	SVP NRS 230 kV Substation	1.0 mile
Starlite Park	City of Milpitas Parks and Recreation	Newark to NRS 230 kV AC Transmission Line	1.0 mile
Rix Neighborhood Park	City of Fremont Parks and Recreation	Newark to NRS 230 kV AC Transmission Line	1.0 mile

NOTES: AC = alternating current; kV = kilovolt; BMX = Bicycle Motocross; NRS = Northern Receiving Station; SCPAL = Santa Clara Police Activities League; SVP = Silicon Valley Power

SOURCES: City of Fremont 2024; City of Milpitas 2024; City of Santa Clara 2024; City of San José 2024d; East Bay Regional Park District 2024; Santa Clara County 2024

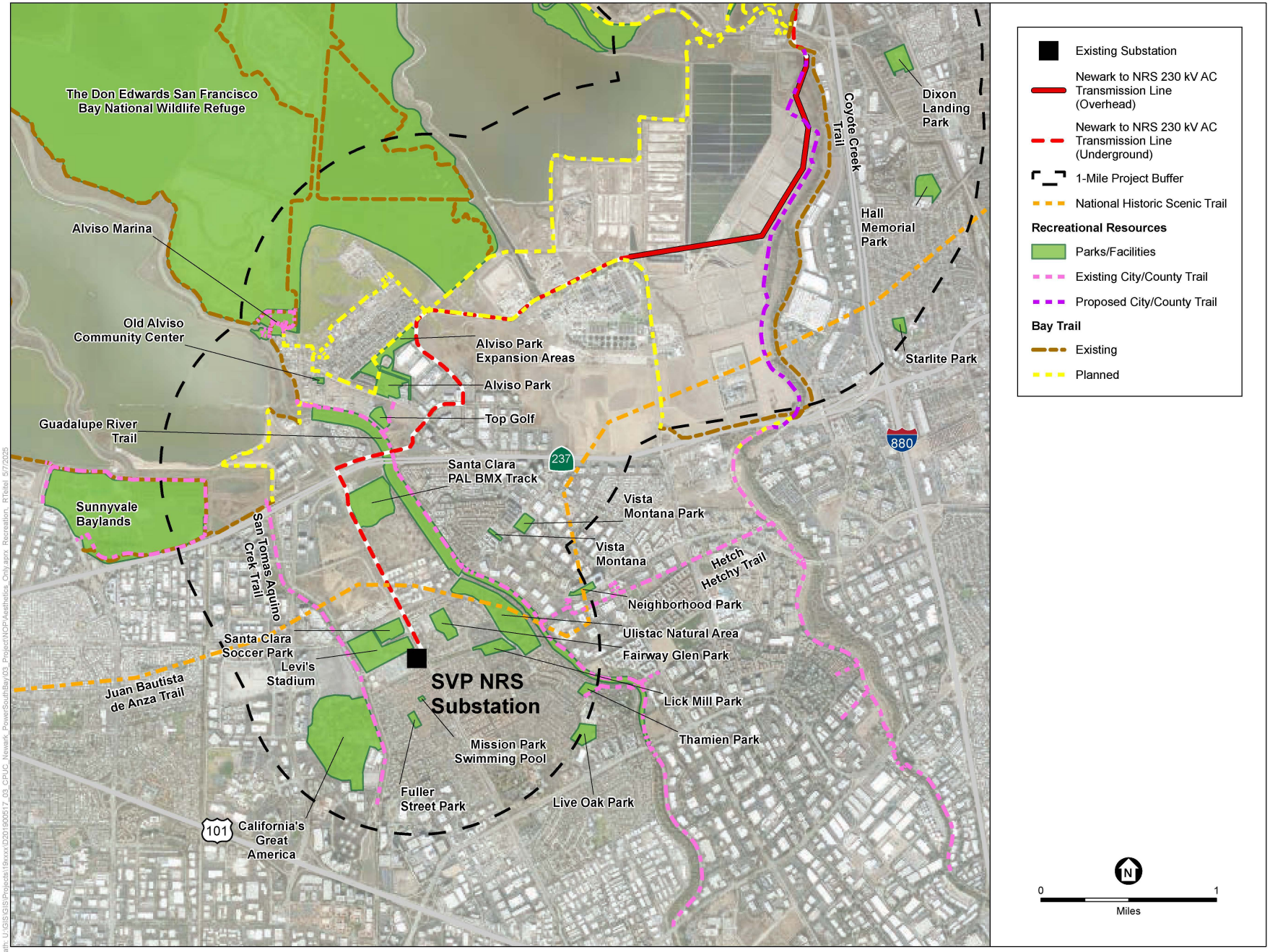


SOURCE: ESA, 2024; CA Dept of Conservation, 2023; Santa Clara County. 2023, Cities of: San Jose, Milpitas, Fremont, Santa Clara, Sunnyvale 2023

Power the South Bay Project

Figure 3.16-1A
Recreational Facilities

ESA



SOURCE: ESA, 2024; CA Dept of Conservation, 2023; Santa Clara County. 2023, Cities of: San Jose, Milpitas, Fremont, Santa Clara, Sunnyvale 2023

Power the South Bay Project

Figure 3.16-1B
Recreational Facilities

ESA

Seventeen recreational resources are located within 1 mile of the Project, including a number of trails that intersect the Project (Figures 3.16-1A and 3.16B, *Recreational Facilities*). The Bay Trail is a series of connected walking and cycling paths encircling the San Francisco and San Pablo bays, and currently includes more than 350 miles of trails, connecting communities, parks, open spaces, schools, and transit (MTC 2024a). This trail network provides space for recreation and active transportation to work, school, and other destinations in the community. The Bay Trail aims to build a shoreline path totaling 500 miles, spanning all nine Bay Area counties (MTC 2024a).

Some trail segments within the Bay Trail network are also identified as trails by other agencies, sometimes under different names. For example, the segment of the Bay Trail identified as the Fremont Boulevard Trail, which is adjacent to the underground Newark to NRS 230 kV AC transmission line alignment (transmission line), is identified by the U.S. Fish and Wildlife Service (USFWS) as the Coyote Creek Lagoon Trail. Additionally, the City of San José identifies the Coyote Creek Trail as part of the Bay Trail, and it is included within the Juan Bautista de Anza National Historic Trail recreational trail system. At its closest point, the Coyote Creek Trail is located within approximately 210 feet of the proposed transmission line (MTC 2024b). Other existing segments of the Bay Trail that intersect with the transmission line include Boyce from Steveson to Auto Mall, rerouted Cushing Boulevard, and Fremont Boulevard Trail, including between Dixon Landing and Fremont Boulevard, and Coyote Creek Trail. Additionally, segments of the Bay Trail along Los Esteros Road, including those associated with the Juan Bautista de Anza National Historic Trail, would intersect with underground portions of the transmission line.

Six additional recreational resources are located adjacent to the Newark to NRS 230 kV AC transmission line alignment: Alviso Park Expansion, Guadalupe River Trail, Santa Clara Police Activities League (SCPAL) BMX track, Levi's Stadium, Santa Clara Youth Soccer Park, and Topgolf. The existing Alviso Park spans 4.5 acres with a swimming pool, barbecue amenities, and a playground. With the planned expansion, the park would include approximately 23.5 acres, providing additional recreational facilities (City of San José 2018). The Alviso Park Expansion Area is adjacent to the Newark to NRS 230 kV AC transmission line alignment for 300 feet along Disk Drive.

The Guadalupe River Trail consists of two disconnected trail systems. The northern and central portions travel from the San Francisco Bay, through Silicon Valley, and into downtown San José. The Guadalupe River Trail is a core trail system within San José's trail network. Once fully developed, it would extend about 20 miles and link the San Francisco Bay to south San José (City of San José 2024c). The Guadalupe River Trail intersects the Project at the Newark to NRS 230 kV AC transmission line alignment where the transmission line crosses under the Guadalupe River.

The SCPAL BMX track is a public racecourse. SCPAL was founded by former Chief of Police Frank Sapena in 1970. The goal was to bring police, neighborhood volunteers, and kids together in a positive setting. SCPAL is a nonprofit organization dedicated to teaching youth the values and rewards that can be accomplished through athletics, including self-determination, self-belief, goal setting, teamwork, and respect for others (SCPAL 2024). The Newark to NRS 230 kV AC transmission line alignment runs adjacent to the SCPAL BMX track's western border along Lafayette Street.

Levi's Stadium is an open-air sports stadium with a natural grass field. The stadium serves as the home field for the San Francisco 49ers and hosts major sports and entertainment events. The stadium has a seating capacity of 68,500, which can be expanded to approximately 75,000.

Santa Clara Youth Soccer Park spans 10.8 acres and comprises three lighted, regulation-sized soccer fields. Two fields have natural grass, and one field is made of artificial sports turf. The artificial surface allows practice and game activity year-round in all types of weather. The facility includes an off-street parking lot and can accommodate 100 cars. Additionally, the facility includes a 7,000-square-foot soccer building equipped with concessions, restrooms, showers, lockers, and meeting rooms.

Topgolf, which is located adjacent to Staging Areas 10, 11, and 12, is an entertainment venue with a sports entertainment complex that features an inclusive, high-tech golf game, full bar, and restaurant (Topgolf 2024).

3.16.2 Regulatory Setting

3.16.2.1 Federal

National Trails System Act of 1968

The National Trails System Act of 1968, as amended, established a trails system in both urban and rural settings. The law promotes the enjoyment and appreciation of trails while encouraging public access and allows for additional federal oversight of these identified trails. For national historic trails along existing land-uses, additional markings may be required. The law classifies trails into four classes: national scenic trails, national historic trails, national recreation trails, and side and connecting trails (National Park Service 2019).

The northern reach of Coyote Creek Trail (from Highway 237 Bikeway to Montague Expressway) and the northern and central reaches of the Guadalupe River Trail near the Project site are both designated as national recreational trails under the National Trail System. Additionally, the Juan Bautista de Anza Trail is designated as a national historic trail (City of San José 2024a).

U.S. Fish and Wildlife Service National Wildlife Refuge

The Don Edwards San Francisco Bay National Wildlife Refuge is managed by the USFWS as part of the San Francisco Bay National Wildlife Refuge Complex. Established in 1972, through local activism, the refuge is a wildlife oasis with 30,000 acres of habitat for millions of migratory birds and endangered species. The refuge provides not only critical habitat but also opportunities for people to enjoy the benefits of nature (USFWS 2024). Impacts on or near land owned or managed by USFWS must be coordinated with USFWS.

3.16.2.2 State

No state regulations for recreation 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 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 recreation that would otherwise be relevant to the Project and alternatives are described below.

The study area jurisdictions have general plan elements, recreational/trails master plans, and other documents that provide policies and guidance for recreational facility development and maintenance. However, some of these documents lack policies or guidance relevant to the Project's construction or design. The following discussion of local regulatory setting includes only those that would be potentially relevant to the Project.

Alameda County

The Alameda County General Plan includes a Recreation element that was developed in 1956 and amended in 1994. The Recreation Element also includes a Recreation Plan, which is intended to establish general areas in the County having the greatest potential for county, regional, or statewide recreational use, as well as semi-public areas with combined residential-recreational uses. The Recreation Plan (Alameda County 1994) serves as the guideline for recreational development in the County and includes the following policy that is relevant to the Project:

> **P9:** All park and recreation lands shall, to the greatest extent feasible, be dedicated and held inviolate in perpetuity, protected by law against diversion to non-recreational purposes and against invasion by inappropriate uses. Exceptions to this policy may be made in the interest of acquiring additional park land or recreation facilities.

Santa Clara County

The *Santa Clara County General Plan, 1995-2010,* was adopted on December 20, 1994. The document includes Countywide policies concerning local and regional parks, including trails. The Santa County General Plan (Santa Clara County 1994) includes the following policies that are relevant to the Project:

> ***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 20.1*:** Trail access should be provided for a range of user capabilities and needs (including persons with physical limitations) in a manner consistent with State and Federal regulations.
>
> ***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).

Santa Clara Valley Water District Water Resources Protection Ordinance

The Valley Water Water Resources Protection Ordinance was adopted in 2006. The Ordinance aimed to provide a reliable supply of healthy and clean water; reduce the potential for flood damages; protect and when appropriate enhance and restore natural resources of streams and watersheds; prohibit injury to Valley Water property and projects; and provide additional open spaces, trails, and parks along creeks and in the watersheds when reasonable and appropriate. As required by the Ordinance, any encroachment or crossing of Valley Water property would require an Encroachment Permit, unless otherwise exempt (Valley Water 2006). The Project would cross the Coyote Creek Trail and the Guadalupe River Trail, located on Valley Water property. Therefore, the Project would be subject to the Valley Water Encroachment Permit.

City of Milpitas General Plan

The City of Milpitas is laying the framework to help ensure that all Milpitas residents, employees, and visitors have safe, convenient, and equitable access to a diverse range of outdoor activities, naturalized open space areas, and recreational opportunities. The City of Milpitas General Plan (City of Milpitas 2021) includes the following policies that are relevant to the Project:

***Policy PROS 1-1*:** Provide a park and recreation system that is equitably distributed, safe, accessible, and designed to serve the needs of all residents of the community.

***Policy PROS 1-2*:** Develop and maintain a high-quality system of parks, trails, and recreation facilities to create diverse opportunities for passive and organized recreation.

***Policy PROS 1-11*:** Pursue opportunities for cooperation and partnerships with other agencies to develop and enhance publicly-accessible trails and linear parks along local drainages, creeks, and utility corridors.

City of San José General Plan

The City of San José encourages providing high quality recreation opportunities. The strategies and policies outlined in the General Plan at the citywide level acknowledge the importance of recreational resources to the City. The City of San José General Plan (City of San José 2024b) include the following policies and action that are relevant to the Project:

***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 public use for recreation 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, and bodies of water, which are governed by the permit requirements set forth in Chapter 13.44. Pursuant to Section 13.44.220, Damaging Park Property, Prohibited Acts Designated, states, "No person shall pick, saw, chop, carve, cut, or damage any vegetation or tree or cut or remove sand, wood, turf, grass, gravel, stone, or timber in or from any park of the City, or make any excavation by any tool, equipment, blasting, or by any other means in any park of the City" (Municode Codification 2025a).

Section 13.44.060, Non-Public Areas, Posting Required, Entering or Damaging Property Prohibited, requires that all parks and recreational services adopt proper labeling, and may exclude the public from any facility whenever public access would endanger the public health or safety, interfere with the use of the recreational facility, or cause damage to the facility (Municode Codification 2025b). These facilities may also exclude the public from any facilities under construction, repair, or demolition (Municode Codification 2025b).

3.16.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the project by LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.

- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for the portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.16.3.1 LSPGC Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measures (APM) to minimize impacts related to recreation within its portion of the Project. The impact analysis assumes that the following APMs would be implemented by LSPGC as part of their portion of work for the Project.

- **APM BIO-1: Restoration of Disturbed Areas**. Once construction is complete in a given area, natural vegetation areas (annual grassland, annual grassland/wetland, riparian, wetland, and vernal pools) that are temporarily disturbed by Project activities shall be restored to approximate preconstruction conditions. Areas that are temporarily disturbed by grading, auguring, 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-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 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 take ITP or other authorization as well as any additional mitigation. 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. These surveys will be conducted within 30 days of the start of construction activities and after protocol surveys for individual species have been conducted. These surveys serve to doublecheck populations, nesting/breeding areas, and sensitive habitats that would be identified during protocol surveys and to ensure that these areas will be avoided by construction activities.
- **APM BIO-4: Sensitive Area Demarcation**. All sensitive biological areas (including creeks, rivers, wetlands, vernal pools, 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-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 [miles per hour], 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.

- **APM BIO-9: Worker Environmental Awareness (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-10: Outdoor Lighting Measures**. The use of outdoor lighting during construction and O&M shall be minimized whenever practicable. All lighting shall be selectively placed, shielded, and directed downward to the extent practicable. All lighting near sensitive species habitat shall be directed away from these areas 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 Proposed Project. The most likely areas for nighttime construction are within commercial and industrial areas and not residential or potentially sensitive biological areas. Night work is not anticipated during O&M except during emergencies.

- **APM BIO-11: Special-Status Bird Surveys**. Protocol surveys following standard guidelines shall be conducted for California black rail, tricolored blackbird, California clapper rail,[1] burrowing owl, golden eagle, and bald eagle and focused surveys shall be conducted for western snowy plover, white-tailed kite, 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 and burrowing owl are covered species under the Santa Clara Valley HCP; if impacts are identified during species-specific protocol 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 protocol surveys for the other State-listed avian species that are not covered under the Santa Clara Valley HCP (California black rail, California clapper rail,[1] Western snowy plover, bald eagle, and any other avian 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

[1] California clapper rail has been renamed the Ridgway's rail.

construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive birds.

- **APM BIO-12: Nesting Bird Protection Measures**. If feasible, LSPGC shall avoid certain construction activities such as vegetation trimming/removal during the migratory bird nesting or breeding season. When it is not feasible to avoid construction during the nesting or breeding season (generally February 15–August 31), APM BIO-15 shall be used. Any 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-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: Golden Eagle Protection**. The USFWS recommends a one mile no disturbance buffer around active nests during the active nesting season (USFWS 2021). LSPGC shall conduct an eagle nest survey within suitable nesting habitat prior to construction. If preconstruction surveys determine that there is an active golden eagle nest within the Survey Area, LSPGC shall consult with the agencies to identify an appropriate disturbance buffer based on existing conditions, including existing visual barriers, existing noise levels, existing high levels of human activity and vehicle traffic, and other factors. In lieu of placing an avoidance buffer, LSPGC could construct a barrier wall, outside of the nesting season, to obstruct construction activities from line of site from the nest. The barrier would also dampen noise from construction activities. A full-time biological monitor shall monitor the bird(s) for signs of distress. If signs of distress are identified, the biological monitor shall require construction to cease until the birds exhibits normal behavior.

- **APM BIO-15: Nesting Bird Surveys**. Preconstruction nest surveys shall be conducted during the nesting or breeding season (generally February 15–August 31) within all proposed impact areas and suitable buffers within suitable habitat areas for Migratory Bird Treaty Act (MBTA)-protected birds. 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 avoidance buffer shall be implemented to ensure that the nesting or breeding activities are not affected. If the nesting or breeding activities by a Federal- or State-listed species are observed, LSPGC shall consult with the USFWS and CDFW as necessary. Monitoring of the nest shall continue until the birds have fledged or construction is no longer occurring on the site. **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 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 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 [Code of Federal Regulations] Part 61).

- **APM CUL-2: Archaeological and Native American Monitoring**. Archaeological and Native American monitoring shall be conducted during initial ground disturbance associated with the Project when within 100 feet (30 m [meters]) of previously recorded prehistoric or 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 m) of previously recorded historic-period resources or after unanticipated discovery of same. Prehistoric and/or ethnohistoric archaeological sites have been recorded adjacent to the Project area, and the Sacred Lands File (SLF) search and Tribal outreach indicate that lands sacred to the North Valley Yokuts Tribe and the Ohlone Indian Tribe are present within the Project search area.[2] In addition, historic-era archaeological sites have been recorded within 100 feet (30 m) of the Project area. A qualified archaeologist, or an archaeological monitor under the supervision of 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, if 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 [Applicant-proposed measures] may be superseded by government-to-government consultation conducted between the CPUC and Tribal organizations as part of the Assembly Bill 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 [meters]) of the discovery

[2] The Sacred Lands File search conducted by Environmental Science Associates in 2024 for the Project was negative for sacred sites (NAHC 2024).

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 limits of construction for the proposed Newark to NRS [Northern Receiving Station] transmission line within Caltrans [California Department of Transportation] ROW [right-of-way] and temporary construction Staging Areas 1, 4 through 8, 10, and part of 11 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 [operation and maintenance] 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.

- **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 bgs [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.

- **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.

- **APM REC-1: Trail Management Plan**. LSPGC shall coordinate with the City of Fremont, City of Milpitas, City of San José, City of Santa Clara, the National Park Service (NPS),

Metropolitan Transit Commission (MTC), and the USFWS for the preparation of the Project TMP. The TMP shall identify if a detour route(s) is required, as well as provide for trail-specific traffic control and safety measures for pedestrians, trail users, and motorists.

Measures that may be implemented by LSPGC as part of the TMP include, but are not limited to, provision of a crossing guard during periods of active construction along the portions of the trails that would be directly impacted by construction of the Project or designation of a detour route if use of a crossing guard is not practical. Signage and flagging may be used to help direct trail users and provide safety for both trail users and construction crews. A copy of the TMP shall be provided to CPUC for recordkeeping.

- **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. A copy of the TCP shall be provided to CPUC for recordkeeping.
- **APM TRA-3: Repair Infrastructure.** Following construction, LSPGC shall confirm that contractors have repaired damage to roads, trails, and bicycle facilities resulting from Project construction activities. Existing conditions shall be documented to assure that roads, trails, and bicycle facilities are returned to preconstruction conditions. LSPGC shall confer with local agencies, as needed, to confirm repairs are consistent with preconstruction conditions.

3.16.3.2 PG&E Best Management Practices and Field Protocols

PG&E has proposed no best management practices or field protocols pertaining to recreation within PG&E's portion of the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation).

3.16.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to recreation within SVP's portion of the Project.

3.16.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, 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 recreation facility or area.

d) 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.

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 recreation resources 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 2.14, *Anticipated Permits and Approvals*, as well as the applicable regulations related to recreation, as described above in Section 3.16.2, *Regulatory Setting*. This analysis assumes that APMs, such as those listed in Section 3.16.3, *Applicant-Proposed Measures and Best Management Practices*, would be implemented to reduce potential effects on recreational resources. It is also assumed that the Project would comply with applicable regulations, and governing agencies and institutions would be expected to continue to enforce applicable requirements to the extent that they do so currently.

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.

Project operations 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 Impact*)

Once operational, there would be no closures of recreational facilities or lands used for recreational purposes, except in limited circumstances in the event that a pole would need to be replaced or some other equipment would require repair, necessitating public safety considerations that preclude the use of a park or recreational land. Therefore, it is unlikely that the Project's operation and maintenance (O&M) would result in any impact on recreational facilities such that substantial deterioration would occur. The O&M activities that SVP and PG&E would perform to operate and maintain their new Project components at the existing SVP NRS 230 kV and PG&E Newark

230 kV substations are similar to those already conducted for their existing facilities, as outlined in Section 2.11, *Operation and Maintenance*. O&M activities that may be conducted include, but are not limited to, repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, repairing or replacing poles and towers, tree trimming, brush and weed control, and access road maintenance.

Additionally, LSPGC, PG&E, and SVP would perform emergency repairs in response to emergency situations, such as damage resulting from high winds, storms, fires, other natural disasters, and accidents. These repairs could include replacement of downed structures or lines, or re-stringing conductors, which may be needed at any time. CPUC General Order 165 requires that transmission overhead facilities be inspected at least once per year (CPUC 2012). As previously discussed, the Project would not add a substantial amount of O&M activity. Although the Project would accommodate planned growth, it would not directly increase the demand for recreational facilities. For these reasons, O&M 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. Therefore, there would be no impact.

Impact 3.16-1: 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. (*Less than Significant with Mitigation*)

The usage levels of recreational facilities are often directly proportional to the number of people who live near the facilities and regularly visit them. If the population within the vicinity of recreational facilities increases, it can be assumed that their usage would also increase. Conversely, if the amount of available recreational facilities is lowered, the remaining facilities may see increased usage. Other recreational facilities may be used based on scheduled events, such as sporting events or concerts. The Project would not increase the frequency of use of events-based recreational facilities in the Project area, such as Levi's Stadium.

Section 3.14, *Population and Housing*, states that the Project would not significantly increase the population in the Project area, either directly or indirectly. Furthermore, Section 3.15, *Public Services*, indicates that the Project would not generate a need for more parks to adequately accommodate changes in population or park usage. The construction phase of the Project is planned to last for approximately 26 months, with a maximum of 200 construction personnel on-site at any given time. Although construction personnel may use parks, trails, or open spaces during their lunch breaks or non-working hours, their limited usage would not result in substantial physical deterioration of these facilities.

Although the Project would not increase the use of public trails, other direct effects could occur during the installation of Project components. These direct effects could include disturbing recreational facilities or blocking access to them during construction. However, as stated in Section 2.10.3, *Demobilization and Site Restoration*, any temporarily disturbed areas, including public trails, would be restored to their approximate preconstruction condition to the extent feasible after construction is completed. As part of the Project and consistent with **APM TRA-3:**

Repair Infrastructure, LSPGC has committed to restoring land temporarily disturbed during construction, including public trails. Additionally, LSPGC would implement **Mitigation Measure 3.17-2b: Infrastructure Repair Reporting**, which would require LSPGC to submit a report to applicable jurisdictions and the CPUC to confirm repairs, including public recreational trails. Therefore, the potential, yet temporary impacts related to the increased use of existing neighborhood and regional parks or other recreational facilities associated with Project construction would be mitigated to a **less-than-significant** level.

> **Mitigation Measure 3.17-2b: 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 be Project construction (e.g., city, county, state, etc.) to confirm 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 following completion of the repair(s).
>
> **Significance after Mitigation:** Implementation of Mitigation Measure 3.17-2b and APM TRA-3 would ensure that impacts related to the increased use of existing neighborhood and regional parks or other recreational facilities would be less than significant.

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*)

Recreational facilities are not included as part of the Project. Additionally, the Project would not cause a substantial population increase or induce unplanned growth (as discussed in Section 3.14, *Population and Housing*), so it would not directly or indirectly result in a need for the construction or expansion of additional recreational facilities. Therefore, no impact would occur due to the construction or operation of the Project.

Criterion c) Whether the Project would reduce or prevent access to a designated recreation facility or area.

Impact 3.16-2: The Project would temporarily reduce or prevent access to a designated recreation facility or area. (*Less than Significant with Mitigation*)

Construction

Construction of the Project would require temporary partial closures of designated recreational facilities for public safety purposes. During construction, it is anticipated that some recreational facilities, parks, trails, and public lands used for recreational purposes may temporarily be closed

or have access limitations due to the Project's staging, storage, or construction activity. For example, portions of the Bay Trail, the Juan Bautista de Anza National Historic Trail, the Coyote Creek Trail, and the Guadalupe River Trail may be temporarily closed to the public during the construction of a segment of the overhead portion of the transmission line. These closures would be temporary and limited to the timeframe needed to safely install poles, string the transmission line, and secure the associated components.

As described in Section 3.16.3, LSPGC would implement **APM REC-1: Trail Management Plan**. APM REC-1 stipulates that LSPGC would coordinate with the cities of Fremont, Milpitas, San José, and Santa Clara, as well as the National Park Service, Metropolitan Transit Commission, and the USFWS, to prepare the Project's Trail Management Plan (TMP). The TMP will 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.

Measures that may be implemented by LSPGC as part of the TMP include, but are not limited to, providing a crossing guard during periods of active construction along the portions of the trails that would be directly impacted by the Project construction or designating a detour route if a crossing guard is not practical. Signage and flagging may be used to help direct trail users and provide safety for both trail users and construction crews. These specific examples are not explicitly required by APM REC-1, as the TMP and required measures would be developed by LSPGC in coordination with the applicable agencies. A copy of the TMP shall be provided to the CPUC for recordkeeping.

Although not noted in the APMs, since the transmission line would cross Coyote Creek Trail and Guadalupe Trail, which are under Valley Water jurisdiction, LSPGC would be required to obtain an encroachment permit from Valley Water before construction. The encroachment permit would be subject to conditions of use, including those governed by the Valley Water's Water Resources Protection Ordinance, or as stipulated by Valley Water for these crossings. Adherence to the Valley Water encroachment permit and APM REC-1 would reduce potential impacts to the Bay Trail, Coyote Creek Trail, and the Guadalupe Trail to less-than-significant.

Bicycle facilities are located along several segments of the transmission line. A comprehensive discussion of existing bicycle facilities is provided in Section 3.17, *Transportation*. During construction, it may be necessary to temporarily close portions of bikeway routes to keep the public at a safe distance from the construction area. As discussed further in Section 3.17, **Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan** and **APM TRA-1: Traffic Control Plan** would help ensure measures are taken to provide safe passage around construction areas, including safe passage for bikes. Additionally, implementation of APM TRA-1 would involve creating a traffic control plan (TCP) that outlines facility-specific traffic control and safety measures for cyclists. These measures may include bike detours and the use of a crossing guard along these bikeways to provide safety for both the recreationists and the construction crews. Furthermore, LSPGC would implement APM TRA-3 and Mitigation Measure 3.17-2b, which would require bicycle trails to be restored to pre-construction conditions, require coordination with all applicable agencies, and submission of a report to confirm restorations.

With the implementation of Mitigation Measure 3.17-2a, Mitigation Measure 3.17-2b, APM TRA-1, APM TRA-3, and APM REC-1, and adherence to encroachment permit conditions, potential Project construction impacts related to access to a designated recreation facility or area would be mitigated to a **less-than-significant** level.

Operations and Maintenance

O&M activities associated with the Project would not change, reduce, or prevent access to designated recreation resources or areas outlined in Table 3.16-1 and Figure 3.16-1. The majority of the transmission lines would be constructed underground, and the surrounding area would be restored to previous conditions after construction. With exceptions in the event of needed maintenance or repairs, the closure of recreational facilities would not be required once the Project facilities become operational. Therefore, the Project's O&M impact on recreation resources would be **less than significant**.

Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan

LSPGC shall coordinate with Project proponents, contractors, and local agencies, as applicable, for other construction projects in the Project's vicinity that may temporally overlap with Project construction, including, but not limited to, 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 the Project's traffic control plan with other traffic control plans prepared for nearby projects. The other projects' traffic control plans shall be cited in the Project's traffic control plan, as applicable.
- 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:
  - Full and partial roadway closures.
  - Circulation and detour plans to include 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 at least 30 days before the start of construction.

Significance after Mitigation: Implementation of APM REC-1, APM TRA-1, and APM TRA-3, as well as Mitigation Measure 3.17-2a and Mitigation Measure 3.17-2b, would ensure that impacts related to reducing or preventing access to a designated recreation facility or area would be less than significant.

Criterion d) Whether the Project would 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.

Although the Project could result in impacts on biological, cultural, and geologic resources, those impacts would not substantially change the character of a recreational facility or area. For detailed discussions of the Project impacts related to visual, biological, cultural, and geologic resources, see Sections 3.1, 3.4, 3.5, and 3.7, respectively.

Impact 3.16-3: The Project 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. (*Less than Significant with Mitigation*)

Construction

As discussed in additional detail in Section 3.1, *Aesthetics*, the majority of the Project components are in areas with open views of the Diablo Mountain Range and distant surrounding mountains. Commercial, industrial, and undeveloped open land and wetlands surround the Project sites. Industrial development has long been the dominant land use in the South Bay, characterized by warehouses, parking lots, staging areas, and office parks. During construction, the presence and use of equipment and materials in these high visual quality locations could temporarily interfere with the visual quality and enjoyment of these resources. However, as described in Section 3.1, *Aesthetics*, impacts would be temporary, and the areas would be restored to post-construction as required by **APM BIO-1: Restoration of Disturbed Areas** and APM TRA-3. LSPGC would also implement **Mitigation Measure 3.1-2: Minimize Fugitive Light from Temporary Sources Used for Construction**, which would minimize the use of outdoor lighting during Project construction and operations, and limited use to those necessary to accomplish activities completely and safely. LSPGC would also implement **Mitigation Measure 3.4-1b: Habitat Restoration and Monitoring**, which details ecological monitoring and reporting requirements for the Habitat Restoration Plan to be approved by CDFW, impacts on riparian habitat, wetlands, and other sensitive natural communities

During construction, the Project is expected to result in the removal of approximately 16 trees, primarily landscape trees, near overhead structures. As discussed in Section 3.4, *Biological Resources*, LSPGC would obtain the proper tree removal permits and would comply with local policies and tree removal ordinances. **Mitigation Measure 3.4-5: Compliance with Local Tree Ordinances**, would require LSPGC to coordinate with the cities of Fremont, Milpitas, San José, and Santa Clara to obtain permission to remove street trees and any required permits for the removal of existing trees. Implementation of Measure 3.4-5 would reduce the Project's impacts on local policies or ordinances to be less than significant.

Project construction could also potentially impact special-status birds, as discussed in Impact 3.4-1 in Section 3.4, *Biological Resources*. This could affect birdwatching activities often conducted in impacted recreational facilities. However, as discussed in Impact 3.4-1, adherence to local, state, and federal regulations, along with the implementation of the measures related to biological resources below, would help ensure that impact would be less than significant. These would include the following APMs:

- **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-9: Worker Environmental Awareness Program (WEAP) Training**
- **APM BIO-10: Outdoor Lighting Measures**
- **APM BIO-11: Special-Status Bird Surveys**
- **APM BIO-12: Nesting Bird Protection Measures**
- **APM BIO-13: Raptor Surveys**
- **APM BIO-14: Golden Eagle Protection**
- **APM BIO-15: Nesting Bird Surveys**

In addition, LSPGC would implement **Mitigation Measure 3.4-1d: Protection of Special-status Wildlife**, which would include preconstruction clearance surveys within suitable habitat for special-status species (e.g., special-status nesting birds and roosting bats) within 7 days of the start of construction activities.

As discussed in Sections 3.5, *Cultural Resources*, sensitive historical or archaeological resources are not anticipated to be disturbed during construction. However, LSPGC would still implement the following APMs related to cultural resources:

- **APM CUL-1: Worker Environmental Awareness Program (WEAP) Training**
- **APM CUL-2: Archaeological and Native American Monitoring**
- **APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources**
- **APM CUL-4: Cultural Resources Inventory**
- **APM CUL-5: Unanticipated Discovery of Human Remains**

Further, LSPGC would implement **Mitigation Measure 3.5-1: Archaeological Monitoring Plan**, which would require the development of an archaeological monitoring plan that identifies areas of archaeological sensitivity and areas that require archaeological and tribal monitoring.

As discussed in Section 3.7, *Geology and Soils*, geological resources are not anticipated to be significantly disturbed during construction. However, LSPGC would still implement the following APMs related to geology and soils:

- **APM GEO-1: Geotechnical Studies and Geologic Hazard Reduction Measures**
- **APM PALEO-1: Paleontological Mitigation Monitoring Plan (PRMMP)**
- **APM PALEO-2: Paleontological Resources Findings**

Although construction may temporarily introduce visually unappealing equipment and structures to the visual landscape 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 of time at a particular location. Adherence to all local, state, and federal regulations, coordination with proper agencies, and implementation of applicable mitigation measures and APMs, as outlined in Sections 3.1, 3.4, 3.5, and 3.7, in addition to implementation of Mitigation Measure 3.4-1d and Mitigation Measure 3.4-5, would ensure that the physical or biological characteristics of the Project area would not be substantially impacted during construction. Therefore, construction impacts related to this criterion would be mitigated to a **less-than-significant** level.

Operations and Maintenance

As described in Section 3.1, *Aesthetics*, the scenic characteristics of recreational areas would not be substantially altered during construction. Although some industrial elements would be introduced into the visual landscape, only a portion of the Project would be overhead, and these Project components would not completely obstruct the views. The modifications to the existing substations would substantially change the character of the recreational areas in the vicinity.

The Project area includes recreational areas that provide views of the San Franciso Bay, the Bay Trial, and the Diablo Mountain Range, as well as an array of industrial elements. As discussed in Impact 3.4-7, the Project's O&M activities would have a less-than-significant impact related to substantial collision or electrocution risk for birds or bats, given that the Project would adhere to all applicable Avian Power Line Interaction Committee methods and standards. Sensitive biological areas would be avoided during O&M. Ground disturbance during O&M would not occur at depths exceeding those during construction. Therefore, there would be no impact on cultural or geologic resources during O&M. Consequently, recreational resources that have cultural or geologic resources would not be substantially impacted during O&M. Scenic views would remain generally open, and the characteristics of recreational resources would not be substantially diminished. Therefore, the impact associated with Project operations would be **less than significant**.

> **Mitigation Measure 3.1-2: Minimize Fugitive Light from Temporary Sources Used for Construction**
>
> The use of outdoor lighting shall be minimized during construction, operations, 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.

Mitigation Measure 3.4-1b: Habitat Restoration and Monitoring

Before construction, the applicant shall obtain all required environmental permits, including a Clean Water Act Section 401 water quality certification for federal and state jurisdictional wetlands, Clean Water Act Section 404 permits for federal jurisdictional, and a CDFW Lake and Streambed Alteration Agreement, and shall adhere to the conditions of each.

At least 30 days before the scheduled commencement of Project activities, the applicant shall submit a Restoration Plan to CDFW and the CPUC for review and written approval. No Project activities shall commence until the Restoration Plan is approved by CDFW in writing. The plan shall detail compensatory mitigation for permanent impacts to riparian and wetland habitat in the form of restoration or enhancement of habitat either on-site (where practicable) or off-site as close to the Project site as practicable. The plan shall also describe the on-site restoration of temporary impacts to riparian and wetland habitat. The Restoration Plan shall also include monitoring and success criteria. Impacts to riparian and wetland habitat shall be restored or otherwise mitigated according to the Restoration Plan within the same calendar year as the impact occurs 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 replanting native vegetation removed before or during construction, and 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, all plants shall be monitored and maintained as necessary for a minimum of 5 years. LSPGC shall submit an annual monitoring report to the CPUC and CDFW during each year of revegetation.
- The revegetation shall be considered successful when, after at least 5 years of monitoring (including at least 3 years without supplemental irrigation), each category of plantings (e.g., herbs, shrubs) has a minimum of 85 percent survival, and restoration areas have attained a relative native cover of 70 percent after 3 years and 75 percent after 5 years, unless 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 the cover success criteria alone may be sufficient if determined in writing by CDFW.

Mitigation Measure 3.4-1d: Protection of Special-status Wildlife

A qualified biologist shall conduct preconstruction clearance surveys within 7 days prior to the start of construction activities within suitable habitat for special-status species that are known to be present or have a moderate to high potential to occur. In addition to the

preconstruction clearance surveys, a qualified biologist shall also 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, and maintain barriers protecting sensitive habitat areas. The biologist shall ensure that mats are placed for unavoidable equipment passage across sensitive habitats, including vernal pools.

If a special-status species is observed in a work area, the qualified biologist shall mark the area 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 until other protective action can be taken as authorized by the Santa Clara Valley HCP or a species-specific ITP, in coordination with USFWS and/or CDFW.

Mitigation Measure 3.4-5: Compliance with Local Tree Ordinances

All removal of street trees within the cities of Fremont, Milpitas, San José, and Santa Clara shall be coordinated with the responsible department in each city (see Section 3.4.3, *Regulatory Setting*) to obtain any necessary tree removal permits. LSPGC shall comply with all permit conditions including tree replanting and monitoring to help ensure successful replanting. Prior to the start of construction, LSPGC shall provide the CPUC with copies of the permits issued by the applicable jurisdictions.

Mitigation Measure 3.5-1: Archaeological Monitoring Plan

Prior to authorization to proceed, a Secretary of the Interior-qualified archaeologist shall prepare an archaeological monitoring plan. The plan shall be reviewed by the culturally-affiliated Native American Tribe(s) and the CPUC. The plan will include (but not be limited to) the following components:

- Training program for all construction and field workers involved in site disturbance. On-site personnel shall attend a mandatory pre-project training led by a Secretary of the Interior-qualified archaeologist and a Native American representative. The training will outline the general cultural sensitivity of the area and the procedures to follow in the event that cultural materials and/or human remains are inadvertently discovered.
- Detailed explanation of 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 archaeological monitoring activities, including a request to the culturally affiliated Native American Tribe(s) for a tribal monitor.
- Identification of the lead Secretary of the Interior-qualified archaeologist responsible for overseeing and directing the monitors.
- How the monitoring will 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).
- Methods to ensure security of cultural resources.

- Protocol for notifying local authorities (i.e., Sheriff, Police) should site looting and other illegal activities occur during construction.

During the course of the monitoring, the lead Secretary of the Interior-qualified archaeologist and lead tribal representative or lead tribal monitor may adjust the frequency of the monitoring from continuous to intermittent or vice versa based on the conditions and professional judgment regarding the potential to impact resources.

If cultural materials are encountered, all soil-disturbing activities within 50 feet in all directions of the find shall cease until the resource is evaluated and the CPUC project manager concurs with the evaluation. The archaeological monitor shall immediately notify the lead Secretary of the Interior-qualified archaeologist, the CPUC, and its consultant of the encountered resource(s). After making a reasonable effort to assess the identity, integrity, and significance of the encountered resource, in consultation with the culturally affiliated Native American Tribe(s), the lead Secretary of the Interior-qualified archaeologist shall present the findings of this assessment to the CPUC for review no later than 10 calendar days after the find. If it is not possible to present the findings within 10 calendar days, the lead Secretary of the Interior-qualified archaeologist shall explain why doing so is infeasible and when it will be possible to present the findings.

If the find is determined to be potentially significant by the CPUC, the lead Secretary of the Interior-qualified archaeologist, in consultation with the CPUC and the culturally affiliated Native American Tribe(s), shall determine whether preservation in place 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 avoidance is not feasible, the CPUC shall consult with the culturally affiliated Native American Tribe(s) and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC [Public Resources Code] Section 21083.2, and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).

Significance after Mitigations: Implementation of APMs, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, Mitigation Measure 3.4-5, and Mitigation Measure 3.5-1 would reduce impacts for this criterion to a less-than-significant level.

Criterion e) Whether the Project would damage recreational trails or facilities.

Impact 3.16-4: The Project would not damage recreational trails or facilities. *(Less than Significant with Mitigation)*

Construction

As discussed in Impact 3.16-1, the transmission line may temporarily close portions of the Bay Trail route to keep the public at safe distances from the construction area. A portion of the

transmission line would be constructed along the Bay Trail segment between Dixon Landing Road and Fremont Boulevard. A trench would be made along Fremont Boulevard within the paved roadway to install the duct bank to house the transmission line and supporting equipment. During construction, it may be necessary to temporarily close portions of this section of the Bay Trail route to keep the public at safe distances from the construction area. Impacts on trails and other recreational facilities could include damage to facilities such as trails, removal of vegetation, and removal of small recreational infrastructure such as signs.

Furthermore, construction activities would encroach on Valley Water properties and easements, as the transmission line crosses the Coyote Creek Trail and Guadalupe Trail into Valley Water property. As discussed in Section 3.16.2, LSPGC would be required to obtain an encroachment permit with Valley Water before construction, in accordance with the Valley Water's Water Resources Protection Ordinance.

As discussed above in Impact 3.16-2, LSPGC would implement APM REC-1 to help ensure that recreational facilities impacted by construction would be done safely. Further, as required by APM BIO-1, once construction is complete in a given area, natural vegetation areas that are temporarily disturbed by Project activities would be restored to approximate preconstruction conditions. Areas that are temporarily disturbed by grading, auguring, or equipment movement would be restored to their original contours and drainage patterns. Work areas would be decompacted, and salvaged topsoil materials would be respread following recontouring to aid in restoration of temporary disturbed areas. LSPGC would also implement Mitigation Measure 3.4-1b to ensure that the Project obtains all required environmental permits and adhere to restoration and monitoring requirements in accordance with the permits and APM BIO-1.

Furthermore, LSPGC would implement APM TRA-3 and Mitigation Measure 3.17-2b, which would require that all trails be restored to pre-construction standards and agency coordination, including the submission of a report to confirm restorations. With implementation of APM BIO-1, APM TRA-3, and APM REC-1, as well as Mitigation Measure 3.4-1b and Mitigation Measure 3.17-2b, and adherence to regulatory requirements and encroachment permit conditions, impacts related to the potential damage of recreational facilities would be mitigated to a **less-than-significant** level.

Operations and Maintenance

The majority of the Project's O&M activities would occur within the existing utility corridor or new rights-of-way, and maintenance of the facilities would not require any permanent closure of recreational trails or facilities in the Project vicinity. The Project alignment crosses the Coyote Creek Trail and the Guadalupe River Trail, both of which are located on Valley Water Property. The transmission line would be underground crossing these trails. O&M activities may temporarily interrupt access to portions of the Coyote Creek Trail and the Guadalupe Trail for occasional maintenance or repairs.

Although the Project would introduce some additional O&M activities to inspect, repair, and maintain the Project's infrastructure, these O&M activities would not occur very frequently, nor would they require the closure of recreational facilities. O&M activities would not damage or

disturb recreational facilities. LSPGC would coordinate access with the applicable agencies to conduct necessary work, consistent with encroachment permits. The Bay Trail and other trails in the area may be affected because of infrequent temporary closures or access limitations for O&M activities. However, other recreational resources would remain available to accommodate demand for recreational activities as O&M occurs. Any physical impact on recreational trails or facilities during O&M activities would be restored as required by APM TRA-3, APM BIO-1, and APM REC-1, or in accordance with permit conditions.

For the reasons discussed previously, the Project would not damage recreational trails or facilities, and this impact would be **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.4-1b and Mitigation Measure 3.17-2b.
>
> **Significance after Mitigation:** Implementation of APMs and Mitigation Measure 3.4-1b, and Mitigation Measure 3.17-2b would ensure that the Project adheres to permitting requirements set forth by applicable jurisdictions, including those that address potential damage of recreational facilities as a result of the Project, therefore, mitigating this impact to less than significant.

3.16.6 Cumulative Effects Analysis

The geographic scope for the cumulative impacts associated with preventing access to designated recreation facilities is the area where both the Project and cumulative project(s) would block access to a designated recreation facility.

The geographic scope for the cumulative impacts associated with altering the character of a recreational area is the area where the Project, in combination with the cumulative projects, may be visible from a recreational resource. This analysis assumes full build-out of the projects listed in Section 3.0. Because decommissioning would not be part of the Project, the temporal scope for analysis of cumulative effects resulting from Project operation would be permanent. The projects listed in Table 3.0-1, *Cumulative Projects List*, include residential projects, mixed-use development, data centers, hotels, office parks and other industrial facilities, restoration projects, wastewater facility and infrastructure upgrades. 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)

As provided above, Project operations would have no impact related to this criterion. Therefore, Project operations would not contribute to potential impacts associated with an increased use of existing neighborhood and regional parks or other recreational facilities, and, as such, there would be no cumulative impact related to this criterion attributable to Project operations. (*No Impact*)

Impact C.3.16-1: Project construction, in combination with the cumulative projects, would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. (*Less than Significant with Mitigation*)

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 the River Oaks Parkway Residential Project and Santa Clara Park Residential Project, as well as those included in the City of Milpitas General Plan, City of San José General Plan, Santa Clara Master Community and General Plans, and others. 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 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 include the development of new parks and recreational amenities to serve new residents. Further, the Project's incremental contribution to a cumulative impact would not be cumulatively considerable because of the limited duration of any potential shift (construction would occur over the course of 26 months) and because APM TRA-3 and Mitigation Measure 3.17-2b stipulate that areas temporarily disturbed by Project activities shall be restored to approximate preconstruction conditions, so recreational facilities would be returned substantially to their pre-construction state at the conclusion of construction. The avoidance and correction of the Project's short-term impacts would assure that any residual incremental impact would not be cumulatively considerable.

Additionally, although the Project would accommodate planned growth, it would not directly increase the demand for recreational facilities. For these reasons, 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: Implement Mitigation Measure 3.17-2b.

Significance after Mitigation: Implementation of Mitigation Measure 3.17-2b and APM TRA-3 would ensure that cumulative impacts related to this criterion would be less than significant.

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 which might have an adverse physical effect on the environment. (*No Impact*)

As discussed above, 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 consideration.

3.16.6.3 Criterion c)

Impact C.3.16-2: The Project, in combination with the cumulative projects, would not reduce or prevent access to a designated recreation facility or area. (*Less than Significant with Mitigation*)

As discussed above, construction of the Project would require temporary, partial closures of designated recreational facilities for public safety purposes. These closures would be temporary and limited to the timeframe needed to safely install poles, string the transmission line, and secure the associated components.

As discussed under Impact 3.16-2, LSPGC would implement Mitigation Measure 3.17-2a, APM TRA-1, and APM REC-1, which would ensure actions are taken to provide safe passage around construction areas, including safe passage for bicycles. Additionally, LSPGC would implement APM TRA-3 and Mitigation Measure 3.17-2b, which requires that impacted natural areas and bicycle trails to be restored to pre-construction conditions and would ensure that any reductions in access to recreational facilities are temporary. Meanwhile, Project O&M activities would not change, reduce, or prevent access to designated recreation resources or areas outlined in Table 3.16-1 and Figure 3.16-1. The majority of the new transmission line would be constructed underground, and the disturbed area would be restored to previous conditions after construction.

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 the implementation of Mitigation Measure 3.17-2a, Mitigation Measure 3.17-2b, APM TRA-1, APM TRA-3, 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 recreation facility or area would be **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.17-2a and Mitigation Measure 3.17-2b.
>
> **Significance after Mitigation:** Implementation of APMs, Mitigation Measure 3.17-2a, and Mitigation Measure 3.17-2b would ensure that cumulative impacts related to temporarily reducing or preventing access to a designated recreation facility or area would be less than significant.

3.16.6.4 Criterion d)

Impact C.3.16-3: The Project, in combination with the cumulative projects, 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. (*Less than Significant with Mitigation*)

As discussed above, though the presence and use of equipment and materials during Project construction in high-visual quality locations—such as areas with open views of the Diablo Mountain Range and distant surrounding mountains—could temporarily interfere with the visual quality and enjoyment of these resources, these impacts, which would not result in substantially

altered scenic characteristics of recreational areas, would be temporary and the areas would be restored to post-construction as required by Mitigation Measure 3.4-1b, Mitigation Measure 3.17-2, APM BIO-1 and APM TRA-3. Although some industrial elements would be introduced into the visual landscape, only a portion of the Project would be overhead, and the transmission infrastructure would not completely obstruct the views.

In addition, the modifications at the substations would not substantially change the character of the recreational areas in the vicinity. Adherence to all local, state, and federal regulations, coordination with proper agencies, and implementation of applicable mitigation measures, APMs and best management practices, as outlined in Sections 3.1, 3.4, 3.5, 3.7, and 3.17, would ensure that the physical or biological characteristics of the Project area would not be substantially impacted.

Given that the Project's impacts to the character of the region's recreational areas and facilities would be temporary or less than significant, they would not, in combination with other projects in the vicinity, rise to the level of cumulatively considerable impacts. Other cumulative projects identified in Table 3.0-1 could also include industrial features that would result in visual change to their local areas; however, none of them are in the Project's viewshed such that they would be cumulatively considerable. Therefore, the impacts of the Project would not combine with the impacts of the other projects to result in a cumulative impact.

> **Mitigation:** Implement Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, Mitigation Measure 3.4-5, and Mitigation Measure 3.5-1.
>
> **Significance after Mitigation:** Implementation of APMs, Mitigation Measure 3.1-2, Mitigation Measure 3.4-1b, Mitigation Measure 3.4-1d, Mitigation Measure 3.4-5, and Mitigation Measure 3.5-1 would ensure that impacts for this criterion would be less than significant.

3.16.6.5 Criterion e)

Impact C.3.16-4: The Project, in combination with the cumulative projects, would not damage recreational trails or facilities. (*Less than Significant with Mitigation*)

As discussed above, the Project could temporarily damage recreational trails and parks, resulting in less-than-significant impacts. During Project construction, it may be necessary to temporarily close portions of this section of the Bay Trail route to keep the public at safe distances from the construction area. Impacts on trails and other recreational facilities could include damage to facilities such as trails, removal of vegetation, and removal of small recreational infrastructure such as signs.

However, as discussed in Impact 3.16-4, LSPGC would abide by requirements set forth by local encroachment permits and would implement Mitigation Measure 3.4-1b, Mitigation Measure 3.17-2b, APM BIO-1, APM TRA-3, and APM REC-1, which would lessen the Project's potential effects on recreational trails or facilities. For example, APM BIO-1 and Mitigation Measure 3.4-1b would ensure that once Project construction is complete in a given area, natural vegetation areas that are temporarily disturbed by the Project would be restored to approximate preconstruction

conditions. Further, APM TRA-3 and Mitigation Measure 3.17-2b would require bicycle trails to be restored to pre-construction conditions, require coordination with all applicable agencies, and require the submission of a report to confirm restoration completeness.

Additionally, although the Project would introduce some additional O&M activities to inspect, repair, and maintain the Project's infrastructure, these O&M activities would occur infrequently and would not require the closure of recreational facilities, nor would they result in damage to these facilities. Though other projects in the area may result in damage to recreational facilities, any damage resulting from the Project would be temporary and restored to preconstruction conditions. Therefore, the Project will not contribute to any cumulatively considerable impacts, and this cumulative impact would be **less than significant**.

Mitigation: Implement Mitigation Measure 3.4-1b and Mitigation Measure 3.17-2b.

Significance after Mitigation: Implementation of APMs, Mitigation Measure 3.4-1b, and Mitigation Measure 3.17-2b would ensure that impacts for this criterion would be less than significant.

3.16.7 References

Alameda County. 1994. *The Recreation Plan*. June 1956; amended May 5, 1994.

City of Fremont. 2011. *City of Fremont General Plan*. Adopted December 2011. Chapter 8, "Parks & Recreation." Available: https://www.fremont.gov/home/showpublisheddocument/805/637750630871400000. Accessed November 6, 2024.

City of Fremont. 2024. Parks. Available: https://www.fremont.gov/government/departments/parks-recreation/parks/park-locations. Accessed November 3, 2024.

City of Milpitas. 2021. *General Plan 2040 City of Milpitas*. Adopted March 9, 2021. Available: https://www.milpitas.gov/DocumentCenter/View/1164/Circulation-PDF?bidId=. Accessed November 11, 2024.

City of Milpitas. 2024. Facilities. Available: https://www.milpitas.gov/Facilities?clear=False. Accessed November 3, 2024.

City of San José. 2018. *Alviso Park Master Plan Update.* Adopted June 19, 2018. Available: https://www.sanjoseca.gov/home/showpublisheddocument/67744/637431896044500000. Accessed November 6, 2024.

City of San José. 2024a. Search Trails: Coyote Creek. Available: https://www.sanjoseca.gov/Home/Components/FacilityDirectory/FacilityDirectory/3037/2058. Accessed November 7, 2024.

City of San José. 2024b. *Envision San José 2040 General Plan*. Adopted November 1, 2011; as amended on October 24, 2024. Available: https://www.sanjoseca.gov/home/showpublisheddocument/22359/637928744399330000. Accessed November 6, 2024.

City of San José. 2024c. Search Trails: Guadalupe River Trail. Available: https://www.sanjoseca.gov/Home/Components/FacilityDirectory/FacilityDirectory/2985/2058. Accessed November 6, 2024.

City of San José. 2024d. Parks and Playgrounds. Available: https://experience.arcgis.com/experience/ef8889a9570b434793828a13c4766210. Accessed November 4, 2024.

City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Adopted on November 16, 2010. Available: https://www.santaclaraca.gov/home/showpublisheddocument/56139/636619791319700000. Accessed November 6, 2024

City of Santa Clara. 2024. City of Santa Clara: Parks and Pools. Available: https://missioncity.maps.arcgis.com/apps/MapTour/index.html?appid=4c84d4f8913541cebd8a8ef3fc31a326&amp. Accessed November 3, 2024.

CPUC (California Public Utilities Commission). 2012. *General Order Number 165*. Adopted March 31, 1997. Amended August 20, 2009, and January 12, 2012. Available: https://docs.cpuc.ca.gov/PUBLISHED/GENERAL_ORDER/159182.htm. Accessed March 19, 2025.

CPUC (California Public Utilities Commission). 2019. *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments*, Version 1.0. November 2019.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

Santa Clara County. 1994. *Santa Clara County General Plan, 1995–2010*. Adopted December 20, 1994. Available: https://plandev.santaclaracounty.gov/codes-and-policies/general-plan. Accessed November 11, 2024.

Santa Clara County. 2024. Santa Clara County Parks. Available: https://parks.sccgov.org/santa-clara-county-parks. Accessed November 3, 2024.

East Bay Regional Park District. 2024. ParkFinder. Available: https://experience.arcgis.com/experience/f48944466b004c26bd0e9524ae3f3323. Accessed November 3, 2024.

MTC (Metropolitan Transportation Commission). 2024a. About the Bay Trail. Available: https://mtc.ca.gov/operations/regional-trails-parks/san-francisco-bay-trail/about-bay-trail. Accessed November 6, 2024.

MTC (Metropolitan Transportation Commission). 2024b. Bay Trail Interactive Map. Available: https://mtc.ca.gov/operations/regional-trails-parks/san-francisco-bay-trail/bay-trail-interactive-map. Accessed November 17, 2023.

Municode Codification. 2025a. 13.44.220 – Damaging park property – Prohibited acts designated. Available: https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.44PA_13.44.220DAPAPRROACDE. Accessed February 25, 2025.

Municode Codification. 2025b. 13.44.060 – Nonpublic areas – Posting required – Entering or damaging property prohibited. Available: https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.44PA_13.44.060NOAROSRENTDAPRPR. Accessed February 25, 2025.

National Park Service. 2019. "National Trails System Act Legislation." Available: https://www.nps.gov/subjects/nationaltrailssystem/national-trails-system-act-legislation.htm#:~:text=The%20National%20Trails%20System%20Act,while%20encouraging%20greater%20public%20access. Accessed November 7, 2024.

SCPAL (Santa Clara Police Activities League). 2024. "BMX." Available: https://santaclarapal.org/bmx/. Accessed November 6, 2024

Topgolf. 2024. Topgolf: San José. Available: https://topgolf.com/us/san-jose/. Accessed November 6, 2024.

USFWS (United States Fish and Wildlife Service) 2024. Don Edwards San Francisco Bay National Wildlife Refuge: About Us. Available: https://www.fws.gov/refuge/don-edwards-san-francisco-bay/about-us. Accessed November 7, 2024.

Valley Water (Santa Clara Valley Water District). 2006. *Water Resources Protection Ordinance*. Available: https://www.valleywater.org/sites/default/files/WRPO.pdf. Accessed January 8, 2025.

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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.

CPUC received scoping comments from the California Department of Transportation (Caltrans) pertaining to transportation. 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 facility crossing the 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, as described in Section 3.17.2, *Regulatory Setting*. Copies of all scoping letters are provided in **Appendix B**, *Scoping Report*.

3.17.1 Environmental Setting

3.17.1.1 Roadway Network

The regional transportation system in the Project area is facilitated by Interstate 680, Interstate 880, State Route 237, and U.S. Highway 101. Interstate 680 and Interstate 880 generally parallel the Project's transmission line alignment (north–south), and State Route 237 and U.S. Highway 101 are generally perpendicular to the transmission line alignment (east–west). Interstate 680 and Interstate 880 are located approximately 3 miles and 0.8 mile east of the PG&E Newark 230-kilovolt (kV) Substation, respectively. State Route 237 is 1.2 miles north of the Silicon Valley Power (SVP) Northern Receiving Station (NRS) 230 kV Substation and is crossed by the Newark to NRS 230 kV alternating current transmission line. U.S. Highway 101 is 1.3 miles southwest of the SVP NRS 230 kV Substation.

The local transportation system in the Project area includes roads maintained by the cities of Fremont, Milpitas, San José, and Santa Clara, and Alameda and Santa Clara counties. The primary access road to the PG&E Newark 230 kV Substation would be the existing Weber Road. The private, paved Weber Road has two lanes and is 30 feet wide before narrowing to 22 feet wide. Access to Weber Road is provided from Boyce Road. Boyce Road is a four-lane primary arterial roadway with a wider right-of-way to accommodate turn lanes, passing lanes, medians, or other improvements. The primary access road to the SVP NRS 230 kV Substation is Lafayette Street, an existing four-lane, paved road that parallels the Project's transmission line alignment from its intersection with Gold Street to the SVP NRS 230 kV Substation for 1.2 miles.

Regional access to the PG&E Newark 230 kV Substation from Interstate 880 is provided from Weber Road and Boyce Road via Auto Mall Parkway. Regional access to the SVP NRS 230 kV Substation from State Route 237 is provided from Stars and Stripes Boulevard via Lafayette Street, a four-lane, public, paved road. Project access along the transmission line alignment would be provided via Interstate 880 and State Route 237, then via various roadways, including (from north to south) Cushing Parkway, Fremont Boulevard, North McCarthy Boulevard, Zanker Road, Los Esteros Road, Disk Drive, Nortech Parkway, North First Street, and Lafayette Street.

3.17.1.2 Transit Facilities

Bay Area Rapid Transit (BART) provides light rail service for the Greater Bay Area, which extends into the cities of Fremont, Milpitas, and San José. Existing transit services provided by BART in the Project area include the Orange and Green lines, with two stops in Fremont, one stop in Milpitas, and one stop in San José (BART 2025a). The Warm Springs/South Fremont Station is located approximately 2.6 miles east of the PG&E Newark 230 kV Substation (BART 2025a). The Milpitas Station is located 5.6 miles southeast of the San José–Santa Clara Regional Wastewater Facility (RWF) (BART 2025a). The Berryessa/North San José Station is located 5.6 miles southeast of the existing SVP NRS 230 kV Substation. BART operates between 5:00 a.m. and midnight on weekdays, 6:00 a.m. and midnight on Saturdays, and 8:00 a.m. and midnight on Sundays (BART 2025b).

Amtrak provides rail service in the Project vicinity, with the nearest rail station being the Great America Station, located 0.4 mile northwest of the SVP NRS 230 kV Substation. The Great America Station provides access to the Amtrak Capitol Corridor and Altamont Commuter Express lines (ACE 2025; Capitol Corridor 2025). The Amtrak Capitol Corridor is a passenger train route running between the city of San José and the city of Auburn in the Sierra Nevada foothills. In the Project area, the Amtrak Capitol Corridor train route parallels a portion of the transmission line alignment along Lafayette Street in the city of Santa Clara.

Caltrain provides rail service in the Project vicinity, including the Santa Clara and College Park stations. The Santa Clara Station is located at 1001 Railroad Avenue, 5.6 miles south of the SVP NRS 230 kV Substation. The College Park Station is the next southbound station, 2 miles south of the Santa Clara Station. Caltrain's route is located 2.5 miles southwest at its closest point to the Project, which is at the SVP NRS 230 kV Substation.

Santa Clara Valley Transportation Authority (VTA) provides bus and light rail services throughout Santa Clara County, including 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 access to the Project area provided by VTA is the Great America light rail station, 0.5 mile northwest of the SVP NRS 230 kV Substation.

Bus services in the Project area are provided by Alameda–Contra Costa (AC) Transit, which provides services for 1.5 million residents in Alameda and Contra Costa counties. AC Transit connects to nine other public and private bus systems, 22 BART stations, seven Amtrak stations, and five ferry terminals. There is one AC Transit stop along the transmission line alignment near the intersection of Fremont Boulevard and Cushing Parkway. The closest AC Transit stop to the

PG&E Newark 230 kV Substation is located 1.1 miles southeast at the corner of Boscell Road and Braun Street. The closest AC Transit stop to the SVP NRS 230 kV Substation is the Tasman and Calle Del Sol stop, located 0.7 mile southwest.

3.17.1.3 Bicycle Facilities

The cities of Fremont, Milpitas, San José, and Santa Clara, and Alameda[1] and Santa Clara counties, manage their respective bicycle networks that offer both separated and shared street space. Within these jurisdictions, there are designated bicycle lanes, routes, and paths within 1,000 feet of the Project area. Existing bicycle facilities in the Project area are classified as follows according to California Streets and Highways Code Section 890.4 (California Legislative Information 2025):

- **Class I bikeways** provide a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized.
- **Class II bikeways** provide a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted.
- **Class III bikeways** provide a right-of-way on-street or off-street, designated by signs or permanent markings and shared with pedestrians and motorists.
- **Class IV bikeways** promote active transportation and provide a right-of-way designated exclusively for bicycle travel adjacent to a roadway and separated from vehicular traffic. Types of separation include, but are not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

Santa Clara County

Santa Clara County, along with its cities and VTA, oversees more than 800 miles of bikeways and a bike network that includes nearly 200 miles of bikeways that are entirely separated from motor vehicle traffic (VTA 2018). Within Santa Clara County, there are existing Class II bikeways along an underground portion of the transmission line alignment along McCarthy Boulevard and along Nortech Parkway, Disk Drive, and Lafayette Street, and a Class III bikeway along Los Esteros Road (VTA 2018). An approximately 1.25-mile overhead segment of the transmission line alignment runs parallel, west of the Coyote Creek Trail (VTA 2018). The Project's closest aboveground structures (NN-5 and NN-6) maintained by Santa Clara County or VTA are 200 feet west of the Coyote Creek Trail.

City of Fremont

The City of Fremont has more than 175 miles of bicycle facilities, including 36 miles of paved Class I bicycle paths (City of Fremont 2018). Within Fremont, there are existing Class II bikeways along the underground portion of the transmission line alignment on Boyce Road, Fremont Boulevard, and Cushing Parkway (City of Fremont 2018).

[1] Alameda County does not manage bicycle facilities in the Project area.

City of Milpitas

The City of Milpitas has approximately 48 miles of designated bicycle facilities, including 8 miles of Class I bikeways, 25 miles of Class II bikeways, and 15 miles of Class III bikeways (City of Milpitas 2021a). Within Milpitas, there is a Class I bikeway along the Coyote Creek Trail and Class II bikeways along McCarthy Boulevard and Dixon Landing Road, which ends at its intersection with Fremont Boulevard and McCarthy Boulevard (City of Milpitas 2021a).

City of San José

The City of San José manages a bike network of 392 miles, which includes 6 miles of protected bike lanes, 3,450 bike parking spaces, and a bikeshare program with 83 stations and more than 1,000 bikes (City of San José 2020). Designated bicycle facilities in the Project vicinity within the city of San José include a Class II bikeway along Disk Drive, Nortech Parkway, North First Street, and a Class III bikeway along Los Esteros Road (City of San José 2025). As discussed further in Section 3.16, *Recreation*, the Guadalupe River Trail is in the vicinity of the Project's transmission line alignment and is designated as a Class I bikeway (City of San José 2020).

City of Santa Clara

The City of Santa Clara has a bike network of 70 miles, including 11 miles of Class I bikeways (City of Santa Clara 2018). Santa Clara also offers long-term bicycle parking with 60 lockers at 12 locations (City of Santa Clara 2018). Existing bicycle facilities in the Project vicinity within the city of Santa Clara include a Class II bikeway along Lafayette Street (City of Santa Clara 2018).

3.17.1.4 Pedestrian Facilities

Public pedestrian facilities are not currently provided to the PG&E Newark 230 kV and SVP NRS 230 kV substations. However, public roads adjacent to the transmission line alignment have public pedestrian facilities (i.e., sidewalks), including Boyce Road, Cushing Parkway, Fremont Boulevard, Nortech Parkway, Disk Drive, and Lafayette Street. Additionally, as described in Section 3.16, *Recreation*, the Project area includes parts of the San José trail network, notably the San Francisco Bay Trail, Guadalupe River Trail, and Coyote Creek Trail. A segment of the San Francisco Bay Trail, called the Fremont Boulevard Trail, is adjacent to the transmission line alignment. The alignment would cross the Guadalupe River Trail where it passes under the Guadalupe River. The Coyote Creek Trail is approximately 210 feet from the transmission line alignment at its closest point.

See Section 3.16, *Recreation*, for a list and map of recreational facilities, including pedestrian facilities, within the Project area.

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

Senate Bill 743

In 2018, the Governor's Office of Planning and Research, now known as the Governor's Office of Land Use and Climate Innovation, published the *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Senate Bill 743 updated the way transportation impacts are measured for new development projects in California. It required changes to the CEQA Guidelines for analyzing transportation impacts, requiring that the criteria for determining the significance of impacts promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and diverse land uses. Consequently, the California Natural Resources Agency revised the CEQA Guidelines to identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. Automobile delay, measured by "level of service" and other similar metrics, generally no longer constitute a significant environmental effect under CEQA.

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. Alameda and Santa Clara counties are 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.** Require permits from Caltrans for any roadway encroachment during truck transportation and delivery, include regulations for the care and protection of state and county highways and provisions for the issuance of written permits, and require a permit for any load that exceeds Caltrans weight, length, or width standards for public roadways.

As applicable, the Project would, and adhere to, necessary encroachment permits under the jurisdiction of Caltrans (e.g., portions of the Project that would encroach Caltrans right-of-way).

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.

General Plans

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 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.

City of Fremont General Plan

The City of Fremont General Plan's Circulation Element (City of Fremont 2011) includes the following relevant policies to reduce or avoid transportation impacts:

Policy 3-1.6: Pedestrian and Bicycle Safety. Improve the safety of pedestrians and bicyclists throughout Fremont through design, signage, capital projects, pavement maintenance, street sweeping, and public education.

Policy 3-1.7: Sidewalks. Require the provision of sidewalks in all new development, including infill development, in order to eventually complete the City's sidewalk network. Sidewalks shall be required on both sides of all public streets, except in hillside areas where a single sidewalk may be adequate. Sidewalks and direct pedestrian connections between uses should also be provided in parking lots.

Policy 3-2.1: Coordinating Land Use and Transportation. Support land use choices and transportation investments which reduce the necessity of driving and create a community that is more walkable and serviceable by public transportation. Land use decisions should

recognize the opportunities and constraints presented by the city's transportation system, including road capacity, transit availability, and pedestrian and bicycle mobility.

Policy 3-2.9: Reducing Single Occupancy Vehicle Commuting. Encourage efforts to reduce commuting by single occupant vehicles, including ride matching, carpooling, high-occupancy vehicle lanes, shuttles, preferential parking for carpools, expanded public transit, and similar strategies.

Policy 3-3.2: Street Connectivity. Promote connectivity in the street network. Except where necessitated by topography, the use of dead-ends and cul-de-sacs shall be minimized, and the extension or preservation of a grid street pattern shall be encouraged. Additional street network connectivity (i.e., a "grid pattern") should be created and existing gaps in the road, bike, and pedestrian networks should be closed.

Policy 3-4.2: Transportation Analysis. Utilize Vehicle Miles Traveled (VMT) as the measurement system for determining transportation environmental impacts beginning July 1, 2020, in compliance with Senate Bill 743 and the CEQA Guidelines […] Projects that have a significant VMT impact must include feasible mitigation measures which will avoid or substantially lessen such significant effects.

Policy 3-4.7: Transportation and the Environment. Ensure that investments in transportation infrastructure, including roads, BART, rail lines, bus-only lanes, bike lanes, and pedestrian bridges are sites and designed in a way that complements the natural and built environments.

Policy 3-5.1: Regional Transportation and Land Use Planning. Participate in regional transportation and land use planning efforts, including programs to balance jobs and housing, manage congestion, address auto-related emissions and greenhouse gases, and reduce the share of the region's trips made by single occupant vehicles.

Policy 3-6.2: Truck Routes. Protect residential neighborhoods from intrusion by truck traffic by maintaining and enforcing an efficient system of designated truck routes.

City of Milpitas General Plan

The City of Milpitas General Plan's Circulation Element (City of Milpitas 2021b) includes the following relevant policies to reduce or avoid transportation impacts:

Policy LU 4-1: Coordinate land use and development decisions with the capacity of the transportation system and plans for future transportation improvements.

Policy CIR 7-4: Ensure that construction detour routes provide safe and convenient access for users of all modes of transportation, including people with disabilities.

City of San José General Plan

The City of San José General Plan's Circulation Element (City of San José 2024) 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-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.

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.

City of Santa Clara General Plan

The City of Santa Clara General Plan (City of Santa Clara 2010) includes the following relevant policies to reduce or avoid transportation impacts:

Policy 5.8.2-P12: Coordinate transportation planning with emergency service providers to ensure continued emergency service operations and services.

Policy 5.8.3-P8: Require new development to include transit stop amenities, such as pedestrian pathways to stops, benches, traveler information, and shelters.

Policy 5.8.3-P10: Require new development to participate in public/private partnerships to provide new transit options between Santa Clara residences and businesses.

Policy 5.8.5-P3: Encourage all new development to provide on-site bicycle facilities and pedestrian circulation.

Santa Clara Valley Transportation Authority

VTA serves three roles in Santa Clara County: primary transit operator, congestion management agency, and regional transportation planning agency. In its role as transit operator, VTA is responsible for the development, operation, and maintenance of the bus and light rail system in the county.

Congestion Management Program

VTA oversees the Congestion Management Program (CMP). State legislation requires all urbanized counties in California to prepare a CMP to obtain each county's share of gas tax revenues. The CMP legislation requires that each CMP contain seven elements, which are contained in VTA's *2021 Congestion Management Program Document*:

- A system definition and traffic Level of Service (LOS) standard element;
- A multimodal performance measures element;
- A transportation demand management and trip reduction element;
- A land use impact analysis element;
- A Capital Improvement Program;
- Development of a countywide transportation model; and
- Development of a Multimodal Improvement Plans.

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 build effective partnerships; increase ridership and support fast, frequent, safe and reliable transit service; support transit-supportive development in close proximity to transit; and 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 create 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* (TIA) *Guidelines* present VTA's guidelines for preparing transportation impact analyses for CMP purposes. These guidelines are intended to be used by Member Agencies, such as the city of San José, 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 the VTA *TIA Guidelines*, and Member Agencies may also have a lower size threshold for when a transportation analysis must be prepared in their jurisdiction (VTA, 2014a). These guidelines provide 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, bicycles, pedestrian facilities, and land use (VTA 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 (VTA 2014b). It considers all travel modes and addresses the links between transportation, land use, air quality, energy use, and community livability (VTA 2014b). The VTP is updated approximately every 4 years to align with the Bay Area's Regional Transportation Plan update (VTA 2014b).

Santa Clara Countywide Bicycle Plan

The Santa Clara Countywide Bicycle Plan describes a vision for a network of connected, high-quality bikeways, providing implementation details needed to meet the multimodal goals outlined in the VTP (City of Santa Clara 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 (City of Santa Clara 2018).

Alameda County

Alameda County 2020 Countywide Transportation Plan

The 2020 Countywide Transportation Plan was adopted by the Alameda County Transportation commission in November 2020, along with the Community-Based Transportation Plan and the New Mobility Roadmap (Alameda County 2020). The Countywide Transportation Plan establishes near-term projects, programs, and strategic priorities; details a 30-year transportation vision; and guides the decision-making of the Alameda County Transportation Commission (Alameda County 2020).

Alameda County Bicycle and Pedestrian Master Plan

The 2019 Alameda County Bicycle and Pedestrian Master Plan updates goals, establishes an implementable bicycle network, and offers pedestrian network recommendations to improve safety and connectivity. The Bicycle and Pedestrian Master Plan also includes support programs for both the populated communities of western Alameda County and the rural communities of the eastern county (Alameda County 2019). The Bicycle and Pedestrian Master Plan provides contextual recommendations to serve the topography and land uses of these areas (Alameda County 2019).

3.17.3 Applicant-Proposed Measures and Best Management Practices

This section presents the measures proposed to be implemented as part of the Project by LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end)

structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.

- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for the portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.17.3.1 LSPGC Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measures (APMs) within its portion of the Project pertaining to transportation. The impact analysis assumes that the following APMs would be implemented by LSPGC as part of their portion of work for the Project.

- **APM TRA-1: Traffic Control Plan**. LSPGC shall prepare a TCP [traffic control plan] 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. A copy of the TCP shall be provided to CPUC for recordkeeping.
- **APM TRA-2: Coordinate Bus Stop Closures**. If bus stop closures are required for Project implementation, LSPGC shall coordinate closures with Santa Clara VTA and/or Alameda-Contra Costa County Transit ("AC Transit"), as appropriate, in advance of closure to minimize disruptions to service. Where disruptions to service are anticipated, advanced notice shall be given to allow transit users on effected 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 and AC Transit websites. Identification and implementation of specific measures shall be implemented in coordination with Santa Clara VTA and AC Transit.
- **APM TRA-3: Repair Infrastructure**. Following construction, LSPGC shall confirm that contractors have repaired damage to roads, trails, and bicycle facilities resulting from Project construction activities. Existing conditions shall be documented to assure that roads, trails,

and bicycle facilities are returned to preconstruction conditions. LSPGC shall confer with local agencies, as needed, to confirm repairs are consistent with preconstruction conditions.

3.17.3.2 PG&E Best Management Practices and Field Protocols

PG&E has proposed no best management practices or field protocols pertaining to transportation within PG&E's portion of the Project.

3.17.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to transportation within SVP's portion of the Project.

3.17.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, 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, Subdivision (b).

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

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.

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. The analysis considers the new transmission line alignment and associated infrastructure and the proposed modifications to the existing PG&E Newark 230 kV and SVP NRS 230 kV substations.

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.

The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. (*No Impact*)

Construction

As described above, the Project spans the cities of Fremont, Milpitas, San José, and Santa Clara, and Alameda and Santa Clara counties, all of which have a program, plan, ordinance, or policy addressing the circulation system. As indicated in Chapter 2, Section 2.8.3, *Construction Work Areas*, Project construction would require lane closures to provide adequate work areas. During underground construction within roadways, it is expected that typically two traffic lanes would be shut down at the construction site. Additionally, temporary closures of sidewalks, trails, paths, or driveways along the transmission line alignment may be necessary. Depending on the timing and location of active Project construction, the Project could have temporary effects on these transportation facilities.

In addition to the proposed temporary lane closures, the Project would generate temporary construction traffic that could affect traffic in the regional and local circulation system. As noted in Section 2.8.3, peak construction is likely to require approximately 200 workers, but the average workforce on site would typically be less. Worker trips are likely to originate primarily from the Greater Bay Area. The total maximum daily vehicle trips (i.e., round trips) during periods of full construction overlap would be 584 trips per day, consisting of 301 truck trips and 283 worker trips. Vehicle trips by construction personnel would generally occur with workers arriving at the site in the morning and leaving at the end of the day, with limited worker-related trips to or from the worksite taking place during the day.

Although these Project construction trips would temporarily increase the number of vehicles in the Project vicinity, these effects would be short-term and temporary, with peak vehicle trips likely to occur during periods when transmission line alignment construction would overlap with the construction of substation modifications (see Section 2.9.3, *Construction Traffic*). Additionally, construction traffic would be limited to predesignated routes to minimize congestion in the Project area (see Section 2.8.1, *Construction Access*). Nonetheless, the Project could still conflict with a program, plan, ordinance, or policy addressing the circulation system, as described in Section 3.17.2.

The Project would be required to implement traffic control plans in consultation with applicable local jurisdictions and in accordance with their requirements. All traffic control plans and encroachment permits would be reviewed and approved by the cities of Fremont, Milpitas, San José, and Santa Clara and by Alameda and Santa Clara counties, as appropriate, and would be provided to the CPUC before implementation. Therefore, although the Project would involve lane closures and would increase local traffic, including the use of slow-moving vehicles, the

Project would obtain and comply with state, regional, and local road encroachment permits and requirements that would avoid or reduce potential conflicts with local programs, plans, ordinances, or policies. Furthermore, Project construction impacts would be limited or temporary. The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, or pedestrian facilities. Therefore, no impact would occur.

Operations and Maintenance

During Project operation, the Project would not require any on-site staff to operate or maintain the Project facilities. LSPGC would hire one technician who would be located close to the Project area 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 operations and maintenance (O&M) of the Project facilities if needed. Day-to-day Project management would be provided by LSPGC's asset management team from remote control centers. Therefore, associated vehicle trips would be negligible and would not likely result in any noticeable change to traffic conditions on roadways in the Project vicinity. Given the infrequent visits by the described staff, Project operation would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, no impact would occur.

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 3.17-1: Project operations 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 for land use projects (Section 15064.3[b][1]) and transportation projects (Section 15064.3[b][2]). As noted in 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.

With reference to Santa Clara County's *TIA Guidelines*, if a proposed project would generate 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). Therefore, the Project would meet the screening qualifications set forth by Santa Clara County regarding the necessity for a quantitative transportation impact analysis. For these reasons, in accordance with CEQA Guidelines Section 15064.3(b)(3), a qualitative analysis of transportation effects is provided.

Operations and Maintenance

During Project operation, the Project would not require any on-site staff to operate or maintain the Project facilities. LSPGC would hire one technician who would be located close to the Project area 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 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 O&M or emergency repairs and a net reduction in vehicle trips and long-term VMT compared to existing conditions. Therefore, given the net reduction in O&M or emergency repairs resulting from Project operation, the Project would result in a negligible change in VMT. Considering the expected minimal amount of as-needed trips for inspection and maintenance, Project operations would not result in a significant increase in relative VMT. Therefore, Project operations 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, adjacent to existing energy utility uses. The Project would not result in the construction of land uses incompatible with existing land uses in the Project area. Therefore, no impact would occur.

Impact 3.17-2: The Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections). (*Less than Significant with Mitigation*)

Construction

Project construction crews would use both public and existing private roads to access the construction sites. The Project area features two- and four-lane roadways with varying traffic volumes, such as Zanker Road, Los Esteros Road, and Lafayette Street. Large, slow-moving construction trucks traveling to and from the Project's construction sites on local roads would

temporarily change driving conditions. Furthermore, anticipated 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. Therefore, Project construction may substantially increase hazards because of geometric design features, which could have a significant impact.

Implementation of **APM TRA-1: Traffic Control Plan** and **Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan** would reduce this impact. These measures would require LSPGC to coordinate construction activities with applicable local jurisdictions before construction to ensure that construction work and associated lane closures comply with encroachment permits, including those set forth by Caltrans, among other requirements. Implementing these measures, in addition to guidance provided by 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, the impact would be **less-than-significant** with mitigation.

Operations and Maintenance

The Project would involve the installation of new aboveground structures (e.g., tubular steel poles) near roadways where none previously existed. Although most of the proposed aboveground structures (e.g., NN-1 through NN-15) would be constructed in locations that are not publicly accessible, some of these new structures may still have the potential to conflict with local roadway users. For example, motorists may collide with new aboveground structures if their vehicles were to leave the road (i.e., fixed-object collisions). However, the Project does not propose changing the configuration (i.e., alignment) of the area's roadways. Additionally, there are already aboveground structures throughout the Project area, and the new structures would be installed according to LSPGC and regulatory design standards that would align with the Project area's existing infrastructure. Furthermore, roadway users are legally required to follow applicable driving rules and regulations and would have to use accessible, unrestricted roadways (i.e., no trespassing).

The Project would implement **APM TRA-3: Repair Infrastructure**, which would require LSPGC to repair damage to roads, trails, and bicycle facilities from Project construction activities to preexisting conditions. Further, the Project would implement **Mitigation Measure 3.17-2b: Infrastructure Repair Reporting**, which would ensure that LSPGC shall submit a report to the CPUC and other applicable jurisdictions to confirm the repairs. Therefore, the Project's O&M impact pertaining to a substantial increase in hazards due to geometric design features would be **less-than-significant** with mitigation.

Mitigation: Implement Mitigation Measure 3.17-2a.

Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan

LSPGC shall coordinate with project proponents, contractors, and local agencies, as applicable, for other construction projects in the Project's vicinity that may temporally overlap with Project construction, including, but not limited to, 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 the Project's traffic control plan with other traffic control plans prepared for nearby projects. The other projects' traffic control plans shall be cited in the Project's traffic control plan, as applicable.
- 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:
  - Full and partial roadway closures.
  - Circulation and detour plans to include 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 at least 30 days before the start of construction.

Mitigation Measure 3.17-2b: 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 (e.g., city, county, or state agencies) whose facilities have been affected be Project construction to confirm 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 following completion of the repair(s).

Significance after Mitigation: Implementation of APM TRA-1, APM TRA-3, Mitigation Measure 3.17-2a, and Mitigation Measure 3.17-2b would 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 operations would not result in inadequate emergency access. (*No Impact*)

Project O&M would include annual routine maintenance trips, inspections, and as-needed management activities (e.g., vegetation trimming). Normal Project operations would be controlled remotely through LSPGC's control systems and manually in the field as required. Relative to

existing conditions, traffic increases for O&M activities would be nominal compared to existing traffic in the area. Therefore, Project operations would have no impact on emergency access.

Impact 3.17-3: Project construction would not result in inadequate emergency access. (*Less than Significant with Mitigation*)

The Project would not require full closure of any roads during either construction or O&M. However, during underground construction within roadways, subject to site-specific conditions and city-approved traffic control plans, 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.

Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would reduce this impact. These measures 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. As described previously, although some disruption to traffic flow may occur when trucks ingress to or egress from the access roads, these events would be periodic and temporary. Pursuant to APM TRA-1, signage, flaggers, or other traffic control measures included in the traffic control plan 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.

In the event that two lanes of traffic would need to be shut down on two-lane roads, such as Los Esteros Road, Disk Road, and Weber Road, LSPGC would coordinate with affected local jurisdictions to ensure that emergency access would be maintained. For example, as a condition of approval pursuant to the traffic control plan, the Project may be required to leave one lane open, provide detour emergency routes, and/or limit construction to just one traffic lane plus the shoulder. Also, 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.

During operation, the new facilities would be unstaffed and remotely monitored, resulting in minimal impacts on surrounding roadways, aside from occasional maintenance trips. For these reasons, the impact would be mitigated to **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.17-2a.
>
> **Significance after Mitigation:** Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would ensure that impacts related to emergency access would be less than significant.

Criterion e) Whether the Project would create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations.

Impact 3.17-4: The Project would not create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations. (*Less than Significant with Mitigation*)

Construction

Project construction would require temporary lane closures and would involve the movement of oversized vehicles that could affect access to and through the construction areas. These lane closures could include travel lanes (if the entire road does not need to be closed) and associated sidewalks, bicycle, or pedestrian paths. Should these temporary lane closures create hazardous conditions (i.e., congestion) from the reduction of typically available facilities, Project construction could have a significant impact on people walking, bicycling, or driving or on public transit operations.

Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would reduce this impact. These measures include the preparation of a traffic control plan that outlines measures to guide traffic (such as signs and workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts during construction. Although some disruption to traffic flow may occur when Project trucks enter or exit the site using access roads, this disruption would be periodic and temporary. Signage, flaggers, or other traffic control measures would be used to reduce potential disruptions to traffic flow and maintain public safety during construction. Thus, people walking, bicycling, driving, or using transit near the Project area would not experience major disruptions from construction as it relates to potentially hazardous conditions. Therefore, the impact would be mitigated to **less than significant**.

Operations and Maintenance

Once constructed, the Project would include new transmission lines and infrastructure and modifications to the existing PG&E Newark 230 kV Substation and SVP NRS 230 kV Substation. Most of the transmission line alignment would be underground and not directly accessible to pedestrians and bicyclists. Most of the overhead portion of the transmission line alignment would be on RWF property, which is not publicly accessible. Project components would not be publicly accessible by pedestrians, bicycles, vehicles, or transit. The Project would be operated primarily through a remote control center, resulting in minimal site traffic by authorized personnel.

However, as described in Impact 3.17-2, the Project would involve the installation of new aboveground infrastructure (e.g., tubular steel poles) near roads where no such infrastructure previously existed. These new aboveground structures would have the potential to create potentially hazardous conditions for people driving. For example, motorists may collide with these structures if their vehicles were to leave the road (i.e., fixed-object collisions). However, aboveground structures are already present throughout the Project area, and the new aboveground structures would be installed according to LSPGC and regulatory design standards that would align with the Project area's existing infrastructure. Furthermore, roadway users are legally

required to follow applicable driving rules and regulations and would have to use accessible, unrestricted roadways (i.e., no trespassing).

The Project would also implement APM TRA-3 and Mitigation Measure 3.17-2b, which would require LSPGC to repair damage to roads, sidewalks, trails, and bicycle facilities resulting from Project construction activities to preexisting conditions and submit a report to the CPUC to confirm the repairs. These measures would reduce the chance that users of the road encounter hazardous conditions as a result of the Project, particularly during O&M. Therefore, the Project's O&M impact related to creating hazardous conditions for people walking, bicycling, or driving or for public transit operations would be mitigated to **less than significant**.

> **Mitigation:** Implement Mitigation Measure 3.17-2a and Mitigation Measure 3.17-2b.
>
> **Significance after Mitigation:** Implementation of APM TRA-1, Mitigation Measure 3.17-2a, and Mitigation Measure 3.17-2b would ensure that impacts related to potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations would be less than significant.

Criterion f) Whether the Project would interfere with walking or bicycling accessibility.

Impact 3.17-5: The Project would not interfere with walking or bicycling accessibility. (*Less than Significant with Mitigation*)

Construction

Pedestrian or direct bicycle access is not provided to the Project sites, except where the underground portions of the transmission line alignment would be in public roadways. Temporary closures of sidewalks or bike lanes would be necessary along the transmission line alignment within existing roads or trails to allow adequate work areas for construction. These closures could potentially interfere with walking or bicycling accessibility, which would result in a significant impact.

Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would reduce this impact. These measures would manage these 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. Therefore, Project construction impacts related to walking or bicycling accessibility would be mitigated to **less than significant**.

Operations and Maintenance

LSPGC would hire one technician to be located near the Project area to perform routine inspections, monitoring, and repairs, while day-to-day Project management would be provided by LSPGC's asset management team from remote control centers. Therefore, there would be minimal vehicle traffic to Project facilities that could interfere with pedestrian or bicycle access. Furthermore, there would continue to be no direct public bicycle or pedestrian access to Project components. Therefore, no permanent interference with pedestrian or bicycle facilities would occur, and the impact would be **less than significant**.

Mitigation: Implement Mitigation Measure 3.17-2a.

Significance after Mitigation: Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would ensure that impacts related to interference with walking or bicycling accessibility would be less than significant.

Criterion g) Whether the Project would substantially delay public transit.

Project operations 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 operation of public transit in the Project vicinity. Therefore, no substantial delays attributable to Project O&M would occur, and no impact would occur.

Impact 3.17-6: Construction of the Project would not substantially delay public transit. (*Less than Significant with Mitigation)*

Construction

Access for Project construction would use the same regional and local road network as bus and light rail transit to access construction sites. As a result, there would be a temporary increase in local traffic that could delay public transit services in the Project area, which could be exacerbated by the temporary lane closures.

Implementation of **APM TRA-2: Coordinate Bus Stop Closures** and Mitigation Measure 3.17-2a would reduce this impact. These measures would require LSPGC to coordinate closures with VTA or AC Transit. They would also provide advance notice of potential service disruption, which would allow bus service providers to plan accordingly. Furthermore, Project construction would be temporary, and regular bus service would be able to resume upon Project completion. 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. Therefore, Project construction would not result in substantial delays for public transit, and the impact would be **less-than-significant** with mitigation.

Mitigation: Implement Mitigation Measure 3.17-2a.

Significance after Mitigation: Implementation of APM TRA-2 and Mitigation Measure 3.17-2a would ensure that impacts related to substantial delays for public transit would be less than significant.

3.17.6 Cumulative Effects Analysis

The scope for considering cumulative impacts related to traffic and transportation includes any project that, along with the Project, would conflict with an applicable plan, ordinance, or policy establishing measures for the performance of the circulation system. It also includes projects that would conflict or be inconsistent with CEQA Guidelines Section 15064.3, substantially increase hazards because of design features or incompatible uses, or result in inadequate emergency access. Additionally, it considers projects that would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance, safety, or accessibility of such facilities. Therefore, the geographic and temporal extent for considering cumulative impacts related to traffic and 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.

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.

Thus, the following cumulative analyses consider the Project's impacts in combination with the projects listed in Table 3.0-1, *Cumulative Projects List*, as readily accessible data allows.

3.17.6.1 Criterion a)

Because the Project would obtain and comply with state, regional, and local road encroachment permits and other applicable requirements, the Project's contribution would not be cumulatively considerable. Therefore, the Project would result in no cumulative impact related to a conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. *(No Impact)*

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.3.17-1: Project operations, 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 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 3.17-2, 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. Therefore, the Project would result in no cumulative impact related to a substantial increase in hazards due to incompatible uses. (*No Impact*)

Impact C.3.17-2: 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 projects within a 2-mile radius from the Project's transmission line alignment. Within the vicinity of the RWF, there are existing and future projects that may overlap with the Project's construction schedule, such as the RWF's Capital Improvement Program, Digested Sludge Dewatering, P3 Biosolids Facility, Residual Solids Management Annual Biosolids Hauling, Legacy Lagoons Cleanup Phase II, and Advanced Water Purification Center Expansion projects. Additionally, the City of San José is considering a project that would expand Zanker Road near the RWF from a two-lane road to a four-lane road, in accordance with the City of San José's General Plan; however, specific details of that project are not yet known at this time.

Although construction details for these projects are not yet fully available, readily accessible data show that construction near the RWF would result in approximately 150 acres of operational area, 750 acres for drying beds, 159 acres of developable land, and 40 acres of recreational space. All of these areas could use Los Esteros and Zanker roads for primary construction and operational access.

Conservatively assuming that each cumulative project would use large, slow-moving construction vehicles on Los Esteros and Zanker roads, there could be a cumulatively considerable increase in hazards due to the local roadway's geometric design features that may be inadequate to handle such large volumes of construction traffic. Furthermore, like the Project, the cumulative projects

may require temporary lane closures, which could further increase hazards as a result of 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, details of the potential Zanker Road expansion project near the RWF are not yet known; therefore, the cumulative impact of that project relative to geometric design features cannot be reasonably determined at this time.

The Project would implement APM TRA-1 and Mitigation Measure 3.17-2a. These measures would require LSPGC to coordinate all construction activities with applicable local jurisdictions before construction to ensure that construction activities and associated lane closures comply with encroachment permit requirements. Furthermore, the cumulative projects developed by the City of San José or the RWF, such as projects under the Capital Improvement Program, would also implement the Plant Master Plan EIR's Mitigation Measure C-TR: Implement Coordinated Transportation Management Plan (City of San José 2013). Similar to the Project's Mitigation Measure 3.17-2a, Mitigation Measure C-TR requires the project proponent's contractors to coordinate with contractors from other projects (City of San José 2013). 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.

The Project would also implement APM TRA-3 and Mitigation Measure 3.17-2b, which would require LSPGC to repair damage to roads, trails, and bicycle facilities from Project construction activities to preexisting conditions and submit a report upon completion to applicable agencies.

Therefore, the Project, in combination with the cumulative projects, would be mitigated to a **less-than-significant impact** related to any potential increase in hazards due to geometric design features.

> **Mitigation:** Implement Mitigation Measure 3.17-2a and Mitigation Measure 3.17-2b.
>
> **Significance after Mitigation**: Implementation of APM TRA-1, APM TRA-3, Mitigation Measure 3.17-2a, and Mitigation Measure 3.17-2b would ensure that cumulative impacts related to increased hazards due to a geometric design feature would be less than significant.

3.17.6.4 Criterion d)

Project operations would have no impact on emergency access; therefore, Project operations would not cumulatively result in inadequate emergency access. (*No Impact*)

Impact C.3.17-3: Project construction, in combination with the cumulative projects, would not result in inadequate emergency access. (*Less than Significant with Mitigation*)

Temporary lane closures would likely occur during Project stringing (i.e., overhead cable installation activities), 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 3.0.4, *Approach to 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 stringing, 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, the Project would implement APM TRA-1 and Mitigation Measure 3.17-2a, which would reduce traffic-related impacts associated with construction of the proposed facilities so that emergency access would be maintained during Project construction. It is also likely that the cumulative projects, notably those on or near the RWF, would also implement measures to reduce any potential impacts on adequate emergency access, including the Plant Master Plan EIR's Mitigation Measure C-TR, as discussed in Impact C.3.17-2. 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 Mitigation Measure 3.17-2a.
>
> **Significance after Mitigation**: Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would ensure that cumulative impacts related to inadequate emergency access would be less than significant.

3.17.6.5 Criterion e)

Impact C.3.17-4: 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 on 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 motorists, pedestrians, bicyclists, and public transit operations, leading to potentially hazardous conditions.

As stated in Impact 3.17-4, the Project would implement APM TRA-1 and Mitigation Measure 3.17-2a. These measures would involve the preparation of a traffic control plan to guide traffic (such as signs and workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts during construction. Furthermore, the Project and cumulative projects would be designed consistently with applicable local jurisdictions' policies and design standards, and therefore would not create potentially hazardous conditions. Furthermore, as discussed in Impact C.3.17-2, cumulative projects in the RWF's vicinity would implement measures (e.g., the Plant Master Plan EIR's Mitigation Measure C-TR) to mitigate potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations.

The Project, in combination with the cumulative projects, may result in a street network that may create potentially hazardous conditions. However, these projects are likely to undergo reviews and adhere to applicable local jurisdictions' policies and regulations that would mitigate such potential impacts, in addition to implementation of applicable mitigation measures. Therefore, the contribution of the Project to a cumulative impact would not be cumulatively considerable, and cumulative impacts related to potentially hazardous conditions would be **less-than-significant** with mitigation.

> **Mitigation:** Implement Mitigation Measure 3.17-2a.
>
> **Significance after Mitigation**: Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would 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.

3.17.6.6 Criterion f)

Impact C.3.17-5: The Project, 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 potential Zanker Road expansion project, none of the known cumulative projects would change vehicle, pedestrian, or bicycle circulation in the Project vicinity. Details of the potential Zanker Road expansion project near the RWF are not yet known; therefore, the potential of that project to interfere with walking or bicycling accessibility cannot be wholly determined.

As stated in Impact 3.17-5, the Project would implement APM TRA-1 and Mitigation Measure 3.17-2a. These measures would manage these temporary closures so that pedestrians and bicyclists would be able to safely navigate roadway access and avoid construction hazards. Also, as discussed in Impact C.3.17-2, cumulative projects in the RWF's vicinity would implement measures to mitigate interference with walking or bicycling accessibility. Additionally, the Project, in combination with the cumulative projects, would be designed consistently with applicable local jurisdictions' policies and design standards related to walking or bicycling accessibility, and therefore would not interfere with walking or bicycling accessibility. Therefore, the contribution of the Project to a cumulative impact would not be cumulatively considerable, and cumulative impacts related to interference with walking or bicycling accessibility would be **less-than-significant** with mitigation.

Mitigation: Implement Mitigation Measure 3.17-2a.

Significance after Mitigation: Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would ensure that cumulative impacts related to interference with walking or bicycling accessibility would be less than significant.

3.17.6.7 Criterion g)

Impact C.3.17-6: The Project, in combination with the cumulative projects, would not cumulatively substantially delay public transit. (*Less than Significant with Mitigation*)

With the exception of the potential Zanker Road expansion project, the cumulative projects listed in Table 3.0-1 are not likely to generate new trips or change the transportation network. However, in the event that multiple active construction sites occur simultaneously within the same 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 ensure appropriate considerations between construction of the cumulative projects and public transit service. As stated in Impact 3.17-6, the Project would implement APM TRA-2 and Mitigation Measure 3.17-2a, which would require LSPGC to coordinate closures with VTA or AC Transit and provide advance notice of potential service disruption, allowing bus services to plan accordingly. Furthermore, as discussed in Impact C.3.17-2, cumulative projects in the RWF's vicinity would implement measures to mitigate substantial delays for public transit.

Although some segments of the local roadway network would experience a temporary increase in construction traffic volume (e.g., Los Esteros and Zanker roads) under cumulative conditions, the increase would not delay public transit. Therefore, the contribution of the Project to a cumulative impact would not be cumulatively considerable, and the cumulative impact would be **less-than-significant** with mitigation.

Mitigation: Implement Mitigation Measure 3.17-2a.

Significance after Mitigation: Implementation of APM TRA-2 and Mitigation Measure 3.17-2a would ensure that cumulative impacts related to substantial delays for public transit would be less than significant.

3.17.7 References

ACE (Altamont Corridor Express). 2025. Stations. Available: https://acerail.com/stations/. Accessed February 25, 2025.

Alameda County. 2019. *Alameda County Bicycle & Pedestrian Master Plan for Unincorporated Areas*. October 2019. Available: https://www.acpwa.org/acpwa-assets/docs/programs-services/streets-roads/2019_Bicycle_and_Pedestrian_Master_Plan_FINALSIjs.pdf. Accessed February 25, 2025.

Alameda County. 2020. *Alameda Countywide Transportation Plan 2020*. December 2020. Available: https://www.alamedactc.org/wp-content/uploads/2021/02/2020_CTP_Final.pdf. Accessed February 25, 2025.

BART (Bay Area Rapid Transit). 2025a. System Map. Available: https://www.bart.gov/system-map. Accessed February 25, 2025.

BART (Bay Area Rapid Transit). 2025b. Schedules. Available: https://www.bart.gov/schedules. Accessed February 25, 2025.

California Legislative Information. 2025. Article 3. California Bicycle Transportation Act [890–892]. Available: https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=SHC&division=1.&title=&part=&chapter=8.&article=3. Accessed February 25, 2025.

Capitol Corridor. 2025. Route Map. Available: https://www.capitolcorridor.org/route-map/. Accessed February 25, 2025.

City of Fremont. 2011. *City of Fremont General Plan*. Adopted December 2011. Chapter 3, "Mobility." Available: https://www.fremont.gov/home/showpublisheddocument/779/637750630784670000. Accessed February 25, 2025.

City of Fremont. 2018. *City of Fremont Bicycle Master Plan*. Adopted July 10, 2018. Available: https://www.fremont.gov/government/departments/transportation-engineering/walking-bicycling/bicycle-master-plan. Accessed February 25, 2025.

City of Milpitas. 2021a. *The City of Milpitas Trail, Pedestrian, and Bicycle Master Plan.* Available: https://www.milpitas.gov/DocumentCenter/View/4954/Trail-Pedestrian-and-Bicycle-Master-Plan---Adopted-May-2022-PDF?bidId=. Accessed March 28, 2025.

City of Milpitas. 2021b. *Milpitas 2040 General Plan*. Adopted March 9, 2021. https://www.milpitas.gov/DocumentCenter/View/1147/Milpitas-2040-General-Plan-PDF?bidId=. Accessed February 25, 2025.

City of San José. 2013. *San José/Santa Clara Water Pollution Control Plant, The Plant Master Plan*. November 2013.

City of San José. 2020. *San José Better Bike Plan 2025*. October 2020. Available: https://www.sanjoseca.gov/home/showpublisheddocument/68962/637477999451470000. Accessed February 25, 2025.

City of San José. 2024. *Envision San José 2040 General Plan*. Adopted November 1, 2011; as amended on October 24, 2024. Available: https://www.sanjoseca.gov/home/showpublisheddocument/22359/637928744399330000. Accessed February 25, 2025.

City of San José. 2025. Better Bike Plan 2025. Available: https://experience.arcgis.com/experience/b021fcdcfff340fd8294486669d5da0e. Accessed February 25, 2025.

City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan*. Available: https://www.santaclaraca.gov/home/showpublisheddocument/56139/636619791319700000. Accessed February 25, 2025.

City of Santa Clara. 2018. *City of Santa Clara Bicycle Plan Update 2018*. June 2019. Available: https://www.santaclaraca.gov/home/showpublisheddocument/64549/636973309258870000. Accessed February 25, 2025.

CPUC (California Public Utilities Commission). 2019. *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments*, Version 1.0. November 2019.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

LCI (Governor's Office of Land Use and Climate Innovation). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018. Available: https://lci.ca.gov/ceqa/docs/20190122-743_Technical_Advisory.pdf. Accessed February 25, 2025.

Santa Clara County. 1994. *Santa Clara County General Plan, 1995–2010*. Adopted December 20, 1994. Available: https://plandev.santaclaracounty.gov/codes-and-policies/general-plan. Accessed February 25, 2025.

Valley Transportation Authority (VTA), 2014a. *Transportation Impact Analysis Guidelines*. Available: https://www.vta.org/sites/default/files/documents/VTA_TIA_Guidelines_2014_Full_FINAL.pdf. Accessed March 28, 2025.

VTA (Valley Transportation Authority). 2014b. *VTP2040 The Long-Range Transportation Plan for Santa Clara County*. Available: https://www.vta.org/sites/default/files/2022-09/VTP-2040_Final.pdf. Accessed February 25, 2025.

VTA (Valley Transportation Authority). 2018. *Countywide Bicycle Plan.* Final Plan. May 2018. Available: https://www.vta.org/sites/default/files/2019-05/SCCBP_Final%20Plan%20_05.23.2018.pdf. Accessed February 25, 2025.

VTA (Valley Transportation Authority). 2021. *2021 Congestion Management Program Document*. Available: https://www.vta.org/sites/default/files/2022-01/2021CMPDocumentV2_Reduced.pdf. Accessed March 28, 2025.

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 National Register of Historic Places (National Register), 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 methodology used to analyze potential Project impacts on tribal cultural resources is the same as that used to analyze potential impacts on cultural resources.

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 B**, *Scoping Report*, includes all comments received during the scoping period. The CPUC received scoping comments from the Native American Heritage Commission (NAHC) that recommended, pursuant to Public Resources Code (PRC) Section 21080.3 (Assembly Bill 52), that the CPUC conduct consultation with Tribes that are culturally affiliated with the Project site. The NAHC also recommended that the CPUC conduct a cultural resources records search of the California Historical Resources Information System and prepare an archaeological inventory survey report along with a search of the NAHC's Sacred Lands File (SLF).

3.18.1 Native American Correspondence

On July 23, 2024, the NAHC provided a list of 25 Native American representatives from 11 Tribes that may have knowledge of tribal cultural resources in the Project area or be interested in the Project: Amah Mutsun Tribal Band, Amah Mutsun Tribal Band of Mission San Juan Baustista, Confederated Villages of Lisjan Nation, Costanoan Rumsen Carmel Tribe, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Tribe of the San Francisco Bay Area, Northern Valley Yokut/Ohlone Tribe, Tamien Nation, The Ohlone Indian Tribe, Wilton Rancheria, and Wuksachi Indian Tribe/Eshom Valley Band. The accompanying SLF search was negative for sacred sites (NAHC 2024).

On July 29, 2024, the CPUC sent emails and certified mail to the 25 Native American representatives whose contact information was provided by the NAHC. These emails and letters provided information on the Project and solicited input from the recipients.

On July 29, 2024, Lorelei Alli, on behalf of Irene Zwierlein, of the Amah Mutsun Tribal Band, emailed to notify the CPUC that mitigation recommendations were provided should the SLF results be positive. On July 30, 2024, Valentin Lopez, Chairperson of the Amah Mutsun Tribal Band, emailed to notify the CPUC that the Project was outside the tribal boundary and that there were no comments.

On August 12, 2024, Samuel Thunder Rodriguez, Cultural Resource Officer of the Costanoan Rumsen Carmel Tribe (Costanoan Rumsen), responded by email, stating that a cultural resources survey with tribal involvement was requested. On August 14, 2024, the CPUC emailed Rodriguez requesting that the Costanoan Rumsen respond within 30 days to schedule a consultation meeting. On August 22, 2024, a consultation meeting occurred between the Costanoan Rumsen and the CPUC. On August 22, 2024, the CPUC emailed Rodriguez the meeting presentation slides and the Project webpage link. On September 5, 2024, the CPUC emailed Rodriguez, informing him that the deadline to provide information for the Draft EIR was September 20, 2024. The CPUC did not receive a response from the Costanoan Rumsen by September 20, 2024, nor as of the filing of this Draft EIR.

On August 6, 2024, Richard Massiatt, Executive Director of the Muwekma Ohlone Tribe of the San Francisco Bay Area (Muwekma Ohlone), responded by email requesting to consult on the Project. On August 5, 2024, the CPUC responded to Massiatt requesting that the Muwekma Ohlone respond by September 20, 2024, to coordinate a consultation meeting. On September 19, 2024, a consultation meeting occurred between the Muwekma Ohlone and the CPUC. On September 21, 2024, Alan Leventhal, Archaeologist and Ethnohistorian with the Muwekma Ohlone, responded by email advising that the Tribe was in the process of reviewing and seeking more information related to previously recorded cultural resources and anticipated ground-disturbing activities. Additionally, Leventhal provided multiple journal articles, reports, and legal and historical documents. On September 23, 2024, the CPUC emailed Leventhal and thanked him for his response. On September 24, 2024, Environmental Science Associates emailed Leventhal the information requested on September 21, 2024. The CPUC did not receive a response from the Muwekma Ohlone as of the filing of this Draft EIR.

On August 22, 2024, Quirina Luna Geary, Chairperson of the Tamien Nation, called Environmental Science Associates to request a consultation and to schedule a meeting. On August 23, 2024, the CPUC emailed Geary to schedule a meeting. On September 5, 2024, the CPUC emailed Geary requesting that the Tribe respond by September 20, 2024, to schedule a consultation meeting. The CPUC did not receive a response from the Tamien Nation by September 20, 2024, nor as of the filing of this DEIR.

On September 4, 2024, Lucy Gill, Cultural Resource Manager II with the Confederated Villages of Lisjan Nation (Lisjan Nation), responded by email requesting the cultural resources study, the SLF and records search results, and any other archaeological reports and details regarding anticipated ground-disturbing activities related to the Project. On September 4, 2024, the CPUC emailed Gill the requested information. On October 1, 2024, the CPUC emailed Gill requesting that the Tribe respond by October 11, 2024, to schedule a consultation meeting. On October 16, 2024, Cheyenne Zepeda, Cultural Resource Manager I with the Lisjan Nation, responded by email, providing a link to a calendar for scheduling the consultation meeting. On October 22, 2024, the CPUC emailed Zepeda, informing her that a date had been selected. On November 27, 2024, a consultation meeting occurred between the Tribe and the CPUC. After the meeting, the confidential appendix of the report was forwarded to the Lisjan Nation per their request. Consultation is ongoing.

To date, the Indian Canyon Mutsun Band of Costanoan, Northern Valley Yokut/Ohlone Tribe, the Ohlone Indian Tribe, Wilton Rancheria, and Wuksachi Indian Tribe/Eshom Valley Band have not responded.

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 California's cultural resources (i.e., 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 Sacred Lands File may constitute a tribal cultural resource. Additionally, the NAHC maintains a list of relevant Tribes and tribal representatives for consultation.

California Public Resources Code

Tribal Cultural Resources (Assembly Bill 52)

In 2014, the California Legislature enacted Assembly Bill 52, which added provisions to the PRC regarding the evaluation of impacts on tribal cultural resources under CEQA, and requirements to consult with California Native American Tribes. In particular, Assembly Bill 52 requires lead agencies to analyze project impacts on tribal cultural resources separately from archaeological resources (PRC Sections 21074 and 21083.09). Assembly Bill 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, 21080.3.2, and 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 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.

Assembly Bill 52-compliant tribal consultation is required to determine if there are tribal cultural resources that may be impacted by a project.

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 (HSC) 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, this regulation would apply.

3.18.2.3 Local

Alameda and Santa Clara counties and the cities of Fremont, Milpitas, San José, and Santa Clara have 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 LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for the portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.18.3.1 Applicant-Proposed Measures

LSPGC has identified the following Applicant-proposed measures (APMs) to minimize impacts related to tribal cultural resources for the Project. The impact analysis assumes that the APMs would be implemented by LSPGC as part of their portion of work for the Project.

- **APM TCR-1: WEAP Training.** LSPGC shall work with interested Tribes to design the TCRs [tribal cultural resources] component of a WEAP [Worker Environmental Awareness Program] 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 [tribal cultural resources]. Prehistoric and/or ethnohistoric archaeological sites have been recorded within the Project area, and the SLF [Sacred Lands File] search and Tribal outreach indicates that lands sacred to the North Valley Yokuts Tribe and the Ohlone Indian Tribe 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 [Applicant-proposed measures] may be superseded by government-to-government consultation conducted between the CPUC and Tribal organizations as part of the AB [Assembly Bill] 52 process or otherwise.

- **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 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 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.

- **APM CUL-2: Archaeological and Native American Monitoring.** Archaeological and Native American monitoring shall be conducted during initial ground disturbance associated with the Project when within 100 feet (30 m [meters]) of previously recorded prehistoric or 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 m) of previously recorded historic-period resources or after unanticipated discovery of same. Prehistoric and/or ethnohistoric archaeological sites have been recorded adjacent to the Project area, and the Sacred Lands File (SLF) search and Tribal outreach indicate that lands sacred to the North Valley Yokuts Tribe and the Ohlone Indian Tribe are present within the Project search area.[1] In addition, historic-era archaeological sites have been recorded within 100 feet (30 m) of the Project area. A qualified archaeologist, or an archaeological monitor under the supervision of 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, if 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 [Applicant-proposed measures] may be superseded by government-to-government consultation conducted between the CPUC and Tribal organizations as part of the Assembly Bill 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 [meters]) 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

[1] The Sacred Lands File search conducted by Environmental Science Associates in 2024 for the Project was negative for sacred sites (NAHC 2024).

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 limits of construction for the proposed Newark to NRS [Northern Receiving Station] transmission line within Caltrans [California Department of Transportation] ROW [right-of-way] and temporary construction Staging Areas 1, 4 through 8, 10, and part of 11 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 [operation and maintenance] 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.

3.18.3.2 PG&E Best Management Practices and Field Protocols

PG&E would be responsible for the implementation of BMPs related to tribal cultural resources within the PG&E Newark 230 kV Substation Project component. This analysis assumes that the following PG&E BMPs would be implemented as part of their portion of work for the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation).

- **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: 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 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.

- **PG&E BMP CULT-3: 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 [cultural resource specialist], 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.

3.18.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to tribal cultural resources within SVP's portion of the Project.

3.18.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in PRC Section 21099, the Project would result in a significant impact on 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 completed. 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 proposed Project.

Project-related ground-disturbing activities, such as 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 damage or destroy surficial or architectural resources and buried archaeological resources, including pre-contact and historic materials or human burials.

3.18.5.2 Impact Assessment

Criterion a.i) Whether the Project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, 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 listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)

Impact 3.18-1: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, 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 listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources. Code Section 5020.1(k). (*Less than Significance with Mitigation*)

Construction

No tribal cultural resources, as defined in PRC Section 21074, have been identified in the Project area through the California Historical Resources Information System records search, NAHC SLF search dated July 23, 2024, pedestrian survey, and Native American consultation conducted by the CPUC. Therefore, the Project is not likely to impact any 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, there is the potential for unrecorded subsurface archaeological materials to be uncovered during proposed ground-disturbing activities, particularly in areas that are undisturbed or have not been subject to a pedestrian survey. If any previously unrecorded archaeological resource or human remains are identified during Project ground-disturbing construction activities and qualify as a tribal cultural resource under PRC Section 21074(a)(1) (determined to be eligible for listing in the California Register or a local register of historical resources), the Project's impact on the resource could be potentially significant.

To reduce potential impacts on undocumented archaeological resources that could qualify as tribal cultural resources, LSPGC has proposed implementing **APM TCR-1: WEAP Training** and **APM TCR-2: Native American Monitoring**. These LSPGC APMs would require tribal cultural resources awareness training for construction personnel and Native American monitoring during ground disturbance associated with the Project when within 100 feet (approximately 30 meters) of previously recorded prehistoric, ethnohistoric, or tribal cultural resources. Additionally, LSPGC APMs and PG&E BMPs identified in Section 3.18.3 would require additional surveys (**APM CUL-4: Cultural Resources Inventory**), cultural resources awareness training (**APM CUL-1: Worker Environmental Awareness Program (WEAP) Training**; **PG&E BMP CULT-1: Worker Awareness Training**), guidelines for archaeological and Native American monitoring (**APM CUL-2: Archaeological and Native American Monitoring**), and protocols for inadvertent discoveries of cultural resources (**APM CUL-2** and **APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources**; **PG&E BMP CULT-2**: **Inadvertent Discovery**) and human remains (**APM CUL-5: Unanticipated Discovery of Human Remains**; **PG&E BMP CULT-3: Human Remains**) during Project implementation. Although LSPGC APMs TCR-1 and TCR-2, along with the additional LSPGC APMs and PG&E BMPs outlined in Section 3.18.3*,* would help mitigate impacts to tribal cultural resources, LSPGC APM TCR-2 is inaccurate regarding current NAHC SLF search results and tribal consultation efforts. This measure contradicts the legal requirements regarding the treatment of human remains under PRC Sections 5097.98 and 5097.99 and HSC Section 7050.5.

To address issues with LSPGC APM TCR-2 and mitigate potential impacts to unknown tribal cultural resources, implementation of **Mitigation Measure 3.5-1: Archaeological Monitoring Plan**, outlined in Section 3.5, *Cultural Resources,* would require the development of an archaeological monitoring plan. This plan would identify areas of archaeological sensitivity and specify where archaeological and tribal monitoring is needed. This measure would enhance the monitoring requirements in LSPGC APM TCR-2, which only requires monitoring within a 100 feet buffer of known or newly discovered resources. Additionally, the Applicant would comply with Government Code Section 27460 et seq., which requires ground-disturbing activities to halt until the county coroner determines whether the remains are subject to the provisions of Government Code Section 27491 and other related laws 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 HSC Section 7050.5, the coroner would make this determination within 48 hours of notification of the discovery of the human remains. If the coroner determines that the remains are not under their authority and

recognizes or has reason to believe that they are those of a Native American, the coroner would contact the NAHC within 24 hours. With the expectation that the Project would comply with existing regulations and, with the implementation of Mitigation Measure 3.5-1, LSPGC APMs CUL-1 through CUL-5, and PG&E BMPs CULT-1 through CULT-3, the potential impact related to this criterion would be **less than significant**.

Operation and Maintenance

Operation and maintenance of the Project would not impact tribal cultural resources, as no ground disturbance would occur beyond the depths reached during construction. Therefore, Project operation and maintenance would have no impact on this criterion.

Mitigation Measure 3.5-1: Archaeological Monitoring Plan

Prior to authorization to proceed, a Secretary of the Interior-qualified archaeologist shall prepare an archaeological monitoring plan. The plan shall be reviewed by the culturally-affiliated Native American Tribe(s) and the CPUC. The plan will include (but not be limited to) the following components:

- Training program for all construction and field workers involved in site disturbance. On-site personnel shall attend a mandatory pre-project training led by a Secretary of the Interior-qualified archaeologist and a Native American representative. The training will outline the general cultural sensitivity of the area and the procedures to follow in the event that cultural materials and/or human remains are inadvertently discovered.
- Detailed explanation of 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 archaeological monitoring activities, including a request to the culturally affiliated Native American Tribe(s) for a tribal monitor.
- Identification of the lead Secretary of the Interior-qualified archaeologist responsible for overseeing and directing the monitors.
- How the monitoring will 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).
- Methods to ensure security of cultural resources.
- Protocol for notifying local authorities (i.e., Sheriff, Police) should site looting and other illegal activities occur during construction.

During the course of the monitoring, the lead Secretary of the Interior-qualified archaeologist and lead tribal representative or lead tribal monitor may adjust the frequency of the monitoring from continuous to intermittent or vice versa based on the conditions and professional judgment regarding the potential to impact resources.

If cultural materials are encountered, all soil-disturbing activities within 50 feet in all directions of the find shall cease until the resource is evaluated and the CPUC project manager concurs with the evaluation. The archaeological monitor shall immediately notify the lead Secretary of the Interior-qualified archaeologist, the CPUC, and its

consultant of the encountered resource(s). After making a reasonable effort to assess the identity, integrity, and significance of the encountered resource, in consultation with the culturally affiliated Native American Tribe(s), the lead Secretary of the Interior-qualified archaeologist shall present the findings of this assessment to the CPUC for review no later than 10 calendar days after the find. If it is not possible to present the findings within 10 calendar days, the lead Secretary of the Interior-qualified archaeologist shall explain why doing so is infeasible and when it will be possible to present the findings.

If the find is determined to be potentially significant by the CPUC, the lead Secretary of the Interior-qualified archaeologist, in consultation with the CPUC and the culturally affiliated Native American Tribe(s), shall determine whether preservation in place 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 avoidance is not feasible, the CPUC shall consult with the culturally affiliated Native American Tribe(s) and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC [Public Resources Code] Section 21083.2, and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).

Significance after Mitigation: Implementation of LSPGC APMs TCR-1 and TCR-2 and APMs CUL-1 through CUL-5, PG&E BMPs CULT-1 through CULT-3, Mitigation Measure 3.5-1, and above-referenced Government Code sections regarding human remains would ensure that impacts associated with the discovery of any tribal cultural resources, if identified during Project construction, would be less than significant.

Criterion a.ii) Whether the Project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

Impact 3.18-2: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. (*Less than Significance with Mitigation*)

Construction

As noted under Impact 3.18-2, no tribal cultural resources, as defined in PRC Section 21074 and determined by the lead agency to be significant pursuant to PRC Section 5024.1, have been

identified in the Project area. Therefore, the Project would not likely impact any tribal cultural resources determined to be significant by the CPUC under PRC Section 5024.1(c).

Based on the archaeological sensitivity analysis, there is the potential for unrecorded subsurface archaeological materials to be uncovered during proposed ground-disturbing activities, particularly in areas that are undisturbed or have not been subject to a pedestrian survey. If any previously unrecorded archaeological resource or human remains are identified during Project ground-disturbing construction activities and qualify as a tribal cultural resource under PRC Section 21074(a)(1) (determined to be eligible for listing in the California Register or a local register of historical resources), the Project's impact on the resource could be potentially significant.

To reduce potential impacts on undocumented archaeological resources that could qualify as tribal cultural resources, LSPGC has proposed implementing APMs TCR-1 and TCR-2. These LSPGC APMs would require tribal cultural resources awareness training for construction personnel and Native American monitoring during ground disturbance associated with the Project when within 100 feet (approximately 30 meters) of previously recorded prehistoric, ethnohistoric, or tribal cultural resource. Additionally, LSPGC APMs and PG&E BMPs identified in Section 3.5, *Cultural Resources*, would require additional surveys (APM CUL-4), cultural resources awareness training (APM CUL-1; PG&E BMP CULT-1), guidelines for archaeological and Native American monitoring (APM CUL-2), and protocols for inadvertent discoveries of cultural resources (APMs CUL-2 and CUL-3; PG&E BMP CULT-2) and human remains (APM CUL-5; PG&E BMP CULT-3) during Project implementation. Although LSPGC APMs TCR-1 and TCR-2, along with LSPGC APMs and PG&E BMPs outlined in Section 3.5, *Cultural Resources,* would help mitigate impacts to tribal cultural resources, LSPGC APM TCR-2 is inaccurate regarding current NAHC SLF search results and tribal consultation efforts. This measure contradicts the legal requirements regarding the treatment of human remains under PRC Sections 5097.98 and 5097.99 and HSC Section 7050.5.

To address issues with LSPGC APM TCR-2 and mitigate potential impacts to unknown tribal cultural resources, implementation of Mitigation Measure 3.5-1, outlined in Section 3.5, *Cultural Resources,* would require the development of an archaeological monitoring plan. This plan would identify areas of archaeological sensitivity and specify where archaeological and tribal monitoring is needed. This measure would enhance the monitoring requirements in LSPGC APM TCR-2, which only requires monitoring within a 100-foot 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 determines whether the remains are subject to the provisions of Government Code Section 27491 and other related laws 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 HSC Section 7050.5, the coroner would make this determination within 48 hours of notification of the discovery of the human remains. If the coroner determines that the remains are not under their authority and recognizes or has reason to believe that they are those of a Native American, the coroner would contact the NAHC within 24 hours. With Project compliance with existing regulations and implementation of Mitigation Measure 3.5-1, LSPGC

APMs CUL-1 through CUL-5, and PG&E BMPs CULT-1 through CULT-3, the potential impact related to this criterion would be **less than significant**.

Operations and Maintenance

Operation and maintenance of the Project would not impact tribal cultural resources, as no ground disturbance would occur beyond the depths reached during construction. Therefore, Project operation and maintenance would have no impact on this criterion.

> **Mitigation:** Implement Mitigation Measure 3.5-1.
>
> **Significance after Mitigation:** Implementation of LSPGC APMs TCR-1 and TCR-2, LSPGC APMs CUL-1 through CUL-5, PG&E BMPs CULT-1 through CULT-3, Mitigation Measure 3.5-1, and above-referenced Government Code sections regarding human remains would ensure that impacts associated with the discovery of any tribal cultural resources, if identified during Project construction, would be less than significant

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3.18.6 Cumulative Effects Analysis

3.18.6.1 Criterion a.i) and a.ii)

Impact C.3.18-1: The Project, in combination with the cumulative projects, would not 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: 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 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. (*Less than Significant with Mitigation*)

The geographic scope for the cumulative effects on tribal cultural resources includes the immediate vicinity of locations where the Project could cause disturbance to tribal cultural resources. Similar to the Project, cumulative projects in the vicinity could have a significant impact on previously undiscovered archaeological resources and human remains, which could be considered tribal cultural resources, during ground-disturbing activities.

The potential impacts of the Project, combined with similar impacts from other probable future projects in the vicinity, could result in a significant cumulative impact on tribal cultural resources. As discussed above, Project construction activities have the potential to result in an adverse change to a significant tribal cultural resource. Implementation of Mitigation Measure 3.5-1, LSPGC APMs TCR-1 and CUL-1 through CUL-5, PG&E BMPs CULT-1 through CULT-3, and compliance with PRC Sections 5097.98 and 5097.99 and HSC Section 7050.5—which require the preparation and implementation of an archaeological monitoring plan, pedestrian surveys of areas that were inaccessible for survey before Project approval and accession of those lands, cultural

resources awareness training, guidelines for archaeological and Native American monitoring, and protocols for inadvertent discoveries of cultural resources or human remains—would reduce potential Project impacts to a less-than-significant level. Additionally, cumulative projects undergoing CEQA review are expected to have similar training programs and inadvertent discovery measures. Therefore, with the implementation of the mitigation measure, LSPGC APMs, and PG&E BMPs, the Project's construction and operation contributions to cumulative impacts would not be cumulatively considerable, and the impact would be less than significant.

Mitigation: Implement Mitigation Measure 3.5-1.

Significance after Mitigation: With the implementation of LSPGC APMs, PG&E BMPs, and Mitigation Measure 3.5-1, the Project, in combination with the cumulative projects, would have a less-than-significant cumulative impact related to this criterion.

3.18.7 References

NAHC (Native American Heritage Commission). 2024. Letter to Ashleigh Sims, Environmental Science Associates, from Cody Campagne. "Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Power the South Bay Project, Alameda and Santa Clara Counties." July 23, 2024.

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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 B**, *Scoping Report*, includes all comments received during the scoping period. CPUC did not receive scoping comments pertaining to utilities and service systems.

3.19.1 Environmental Setting

The Project area lies within the jurisdictional boundaries of the city of Fremont in Alameda County and the cities of Milpitas, San José, and Santa Clara in Santa Clara County. Each city's respective General Plan and urban water management plan (UWMP), the California Code of Regulations (CCR), and local relevant websites were reviewed for regulatory information and for background information about water, gas and electrical, wastewater, stormwater, telecommunication, and waste management providers for the Project area.

3.19.1.1 Regional Setting

The following sections identify the existing utility providers and associated infrastructure that serve the Project area.

Water Supply

City of Fremont

The city of Fremont receives its water supply from Alameda County Water District (ACWD). About 27 percent of the total water supply is purchased from the State Water Project. Approximately 19 percent of the total supply originates from the San Francisco Regional Water System, which is operated by the San Francisco Public Utilities Commission (SFPUC). The remainder, about 54 percent of the total water supply, originates locally from the Del Valle Reservoir, the Alameda Creek watershed, and the Niles Cone groundwater basin. ACWD treats its water to meet and surpass all federal and state drinking water standards (City of Fremont 2011).

ACWD supplies water to a 104.8-square-mile service area that encompasses the cities of Fremont, Newark, and Union City (the "Tri-Cities"). Approximately 67 percent of ACWD's demand is from residential customers, with the balance used by commercial, industrial, institutional, and large landscape customers (ACWD 2021a). Total distribution system water use (including non-revenue water) was approximately 38,500 acre-feet (AF) per year, in fiscal year 2019–2020 (ACWD 2021a). Usage of the groundwater system includes private (non-ACWD) groundwater pumping primarily for industrial, agriculture, and municipal landscape irrigation. In addition, ACWD's ongoing Aquifer Reclamation Program pumps saline groundwater out of the

groundwater basin and replaces it with fresh water at ACWD's recharge facilities, Alameda Creek and Quarry Lakes. Saline groundwater must flow out to San Francisco Bay to prevent seawater from intruding into the local aquifer and drinking water system. ACWD also operates the Newark Desalination Facility, which treats brackish groundwater to remove salts and other impurities (City of Fremont 2011; ACWD 2023).

ACWD currently projects that its water supply will be adequate to meet projected future water demands, as adjusted for estimated savings from improved future water use efficiency. By 2030, when Project construction is anticipated to be completed, ACWD's total projected water supply of 68,200 AF would be sufficient to meet the projected demand of 60,400 AF, with an excess of 7,800 AF per year (ACWD 2021a).

Additionally, ACWD has adopted a water shortage contingency plan (WSCP) and complies with California Water Code Section 10632, which requires that every urban water supplier prepare and adopt a WSCP as part of its UWMP. The WSCP analyzes ACWD's water supply reliability, outlines staged reduction measures, and details generalized actions that would be taken under various degrees of severity during a water shortage emergency (ACWD 2021b).

City of Milpitas

The city of Milpitas owns, operates, and maintains a potable water distribution system that serves more than 80,000 customers in the city. Milpitas purchases treated potable water from two wholesalers: SFPUC's Regional Water System and the Santa Clara Valley Water District (Valley Water). The SFPUC Regional Water System's supply is predominantly snowmelt from the Sierra Nevada, delivered through the Hetch Hetchy aqueducts, but it also includes treated water produced by SFPUC from its local watersheds and facilities in Alameda and San Mateo counties. Valley Water provides treated water from its Penitencia and Santa Teresa treatment plants via its Milpitas Pipeline, which terminates in Milpitas (City of Milpitas 2021a).

In 2020, Milpitas had water supplies of 10,525 AF, which were sufficient to meet its water demand of 9,430 AF. By 2030, the city is projected to have a water supply of 13,733 AF and water demand of 12,505 AF. According to the City of Milpitas UWMP, SFPUC normal year supply is expected to meet the City's projected demands through 2045 (City of Milpitas 2021a).

In addition, the city of Milpitas has adopted a WSCP which is part of its UWMP. The WSCP provides a structured guide for Milpitas to deal with water shortages, incorporating prescriptive information and standardized action levels, along with implementation actions in the event of a catastrophic supply interruption (City of Milpitas 2021b).

City of San José

Three potable water suppliers serve the city of San José: the San José Municipal Water System (Muni Water), San Jose Water Company (SJW), and Great Oaks Water Company. Muni Water is owned and operated by the city of San José, while SJW and Great Oaks Water Company are privately owned (City of San José 2013).

The Project area spans Muni Water's service area. Muni Water has grown from a relatively small water utility to the fourth largest water retailer in Santa Clara County. Muni Water serves

approximately 130,000 customers in San José. Muni Water relies on water supply from surface water from SFPUC, local and imported surface water from Valley Water, groundwater from the Santa Clara Subbasin, and recycled water from South Bay Water Recycling (City of San José 2021a). SFPUC's supply is predominantly from the Sierra Nevada, delivered through the Hetch Hetchy aqueducts, but also includes treated water from its local watersheds and facilities.

According to Muni Water's water supply reliability assessment, it will be able to meet water demands in its service area in normal water years through 2045. However, during a single dry year or multiple dry years, Muni Water would experience a supply shortage and would need to implement conservation measures identified in its WSCP. Based on total potable water supplies, Muni Water may experience supply shortages of approximately 5–10 percent during a drought (City of San José 2021a). Climate Smart San José estimates that current residential water demand in San José is approximately 64.56 gallons per person per day (City of San José 2024a). Therefore, to serve its 130,000 customers, current Muni Water demand is approximately 25,754 AF per day.

According to SJW's UWMP, water supplies will be adequate to meet system demand for the years 2025–2030 based on a multiple-dry-year supply/demand comparison. Total water demand in 2020 was 121,500 AF. The projected total water demand and supply in 2030 is 135,870 AF, and no excess supplies are anticipated in a normal water year. Multi-year droughts present the greatest challenge to the ability of SJW and Valley Water to achieve water supply reliability (SJW 2021a).

To account for potential water shortages under severe drought conditions, Muni Water and SJW have adopted WSCPs for their service districts, which are attached to their respective UWMPs. The WSCPs require a staged water reduction process and outline restriction levels that would decrease water demand and depend on the projected severity and duration of the water supply shortage (City of San José 2021b; SJW 2021b).

City of Santa Clara

The city of Santa Clara's water service area covers only water service connections found within the city limits. In general, the City receives its potable water supply from a combination of sources: 85 percent of the supply comes from the Tuolumne River through Hetch Hetchy Reservoir and the remaining 15 percent comes from the local watersheds through the San Antonio, Calaveras, Crystal Springs, Pilarcitos, and San Andreas reservoirs (City of Santa Clara 2021). Groundwater coming from the Santa Clara Subbasin contributes the predominant portion—almost 70 percent—of the City's supply.

The city of Santa Clara also uses recycled wastewater for certain landscape irrigation, industrial, and construction purposes. Water production wells in the Santa Clara Valley average about 278 feet below ground surface and yield an average of 425 gallons per minute (City of Santa Clara 2010). The water system in the city of Santa Clara consists of approximately 335 miles of water mains, 26 wells, and seven storage tanks with 29 million gallons of water capacity, and three booster pump stations (City of Santa Clara 2024a). Valley Water and SFPUC's Hetch Hetchy system provide imported water for the remaining supply. In 2020, the City of Santa Clara's Department of Water and Sewer Utilities had approximately 25,828 water service connections with an average potable-

water demand of 18,302 AF and 3,499 AF of recycled-water demand. Recycled water composes approximately 16 percent of the City's overall water supply and is supplied from the San José–Santa Clara Water Pollution Control Plant, which is an advanced tertiary treatment plant. Recycled water is used primarily for irrigation of large turf areas at golf courses, parks, and schools; industrial processing of water; cooling towers; toilet flushing in dual-plumbed buildings; and the city of Santa Clara's electric utility–operated 147-megawatt power plant's cooling and steaming process (City of Santa Clara 2021).

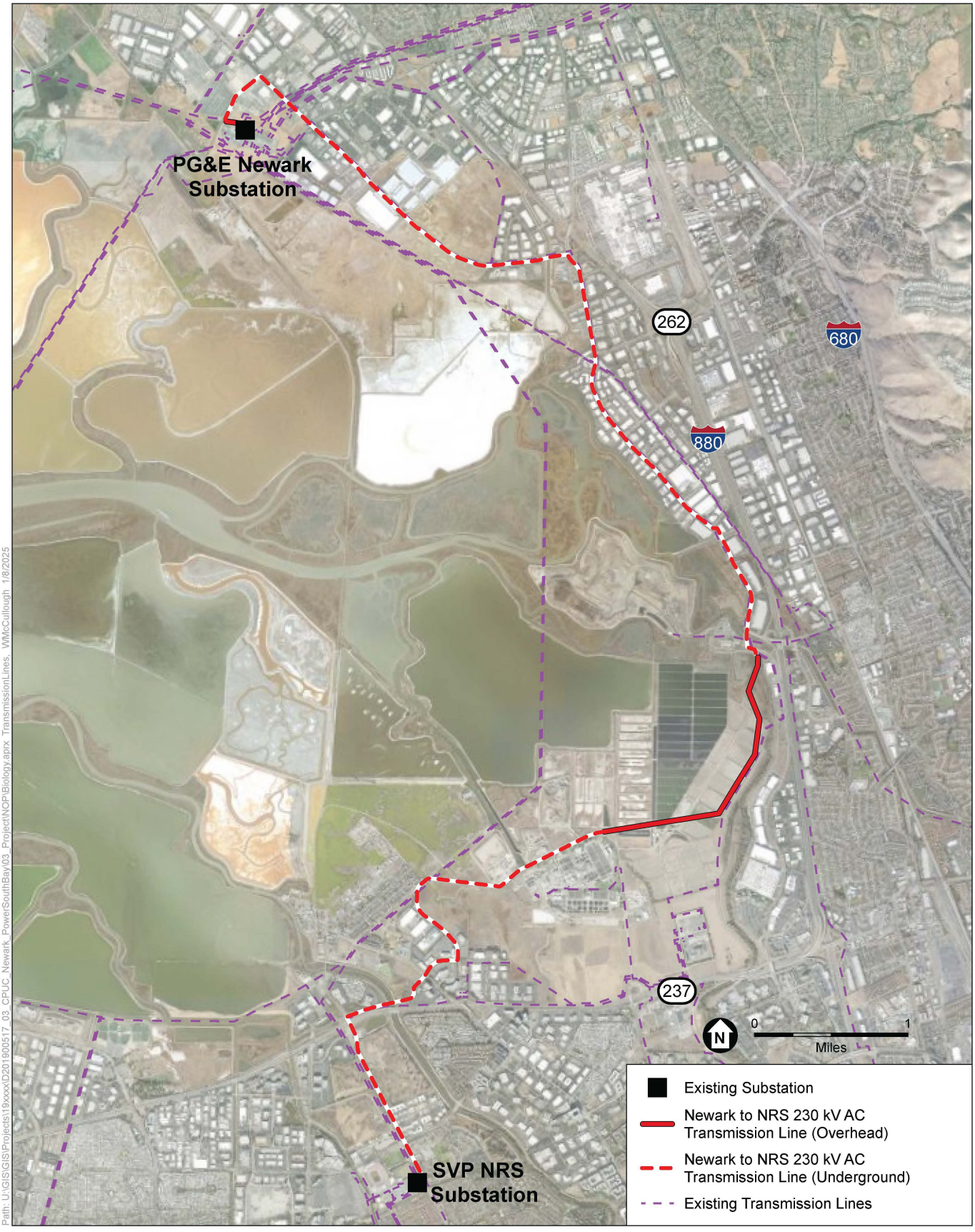
Valley Water's 2020 UWMP shows supply surpluses in all supply reliability scenarios. Valley Water's basic water supply strategy to compensate for multi-year droughts is to store excess wet-year supplies in the groundwater basin, local reservoirs, San Luis Reservoir, and/or the Semitropic Groundwater Bank and draw on these reserve supplies during dry years to help meet demands. Current countywide average annual water demand and use within Santa Clara County is estimated at approximately 310,000 AF. In 2020, Valley Water's water demand and use of water supplies totaled approximately 306,000 AF. For estimated water use in 2025, Valley Water has calculated an excess of 116,000 AF based on its projected water demand (330,000 AF) and supply (446,000 AF). Over the long term, in 2030, projected water demand is estimated at 325,000 AF while projected water supply is 518,000 AF, for an excess of 193,000 AF per year. Valley Water's long-term water supply level of service goal is to meet 100 percent of annual water demand during non-drought years and at least 80 percent of annual water demand in drought years, and Valley Water anticipates meeting and exceeding water demand through 2045 (Valley Water 2021a).

Water shortage contingency planning is also provided in the Valley Water UWMP to meet demand during years of drought and low water supplies. Valley Water has adopted a WSCP that has been attached to its UWMP. The WSCP includes a real-time water supply availability assessment and structured steps designed to respond to actual conditions, to allow for efficient and effective management of any shortage with predictability and accountability (Valley Water 2021b).

Natural Gas and Electricity

PG&E provides electricity to the cities of Fremont, Milpitas, and San José, and SVP provides electricity to the city of Santa Clara (PG&E 2014a; City of Santa Clara 2010). The existing PG&E Newark 230 kV and SVP Northern Receiving Station (NRS) 230 kV substations are an integral part of the Greater Bay Area's transmission system by facilitating the transfer of energy in the South Bay area.

The existing PG&E Newark 230 kV Substation is a 230/115-kilovolt (kV) transmission substation that is connected to a total of 30 transmission lines—including seven 230 kV lines, 21 115 kV lines, and two 60 kV lines—as well as 10 distribution lines. The SVP NRS 230 kV Substation is a 230/115/60 kV transmission substation that is connected to five transmission lines—including one 230 kV line and five 115 kV lines—and four sub-transmission lines. **Figure 3.19-1** shows existing transmission lines near the Project area.



SOURCE: ESA, 2024; CEC, 2024

Power the South Bay Project

Figure 3.19-1
Transmission Lines along the Project Alignment

PG&E operates transmission- and distribution-level natural gas lines throughout the Project area and provides natural gas to the cities of Fremont, Milpitas, San José, and Santa Clara (PG&E 2014b; City of Santa Clara 2010). Natural gas transmission pipelines in the Project area generally parallel State Route (SR) 237 and Interstate 880 (I-880) (USDOT 2024). The Project would intersect and parallel one existing natural gas line that runs along Fremont Boulevard near I-880 and two pipelines that run along Lafayette Street near SR 237. **Figure 3.19-2** shows natural gas lines near the Project area as presented by the National Pipeline Mapping System (USDOT 2024).

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 (ARK 2025). This memorandum identified:

- a pipeline that would parallel the transmission line for approximately 1.0 mile in Lafayette Street north of the NRS Substation and would cross it twice;
- a pipeline that would parallel the transmission line for approximately 1,000 feet along SR 237 and crosses the freeway as it proceeds south on Lafayette Street; and,
- a pipeline that would parallel transmission line for approximately 3.0 miles along Fremont Boulevard and would cross it twice.

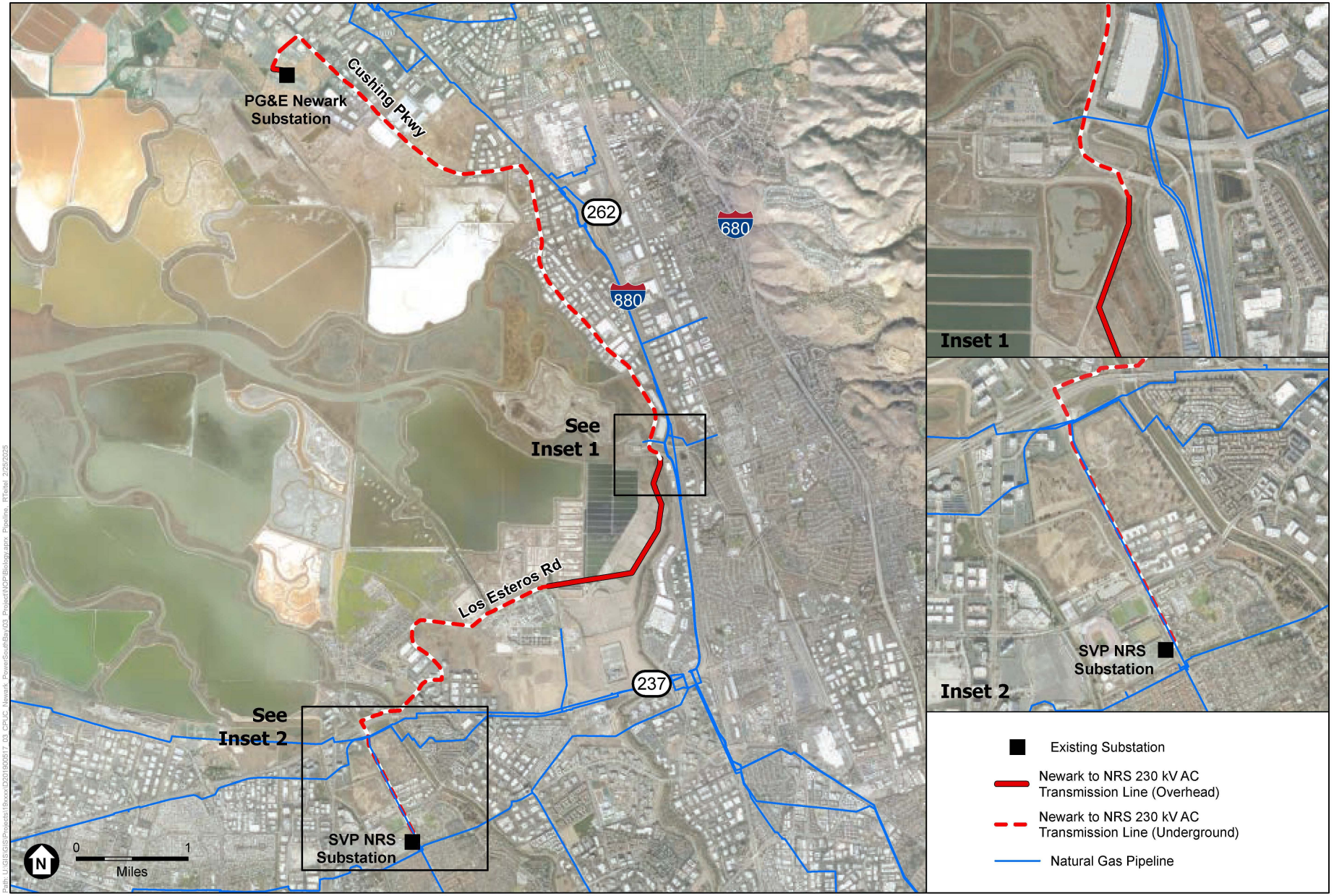
Although this memorandum acknowledged the likely presence of water lines in the Project area, it did not identify specific water lines.

Wastewater

The Project area is served by the Union Sanitary District Wastewater Facility and the San José–Santa Clara Regional Wastewater Facility (RWF). Union Sanitary District is an independent special district that provides wastewater collection, treatment, and disposal services to residents and businesses in Fremont, Newark, and Union City, in southern Alameda County. Union Sanitary District serves residential, commercial, and industrial uses in an area of 60.2 square miles, including 36.4 square miles in Fremont (City of Fremont 2011). The district maintains approximately 839 miles of underground sewer infrastructure with seven pump stations within its service area. The Union Sanitary District Wastewater Facility serves 342,317 residents and treats an average of 24.25 million gallons per day of wastewater (Union Sanitary District 2024).

The city of Milpitas owns and operates its own sewer collection system, which includes main sewer connections, gravity pipes, force mains, and pump stations. The main sewer station has a capacity of 45 million gallons per day and pumps sewage through 2.5 miles of sewer connections to the San José–Santa Clara RWF for treatment (City of Milpitas 2021c).

The San José–Santa Clara RWF's sanitary sewer system includes piping and substations that transport wastewater from households and businesses to the RWF. The facility serves 1.4 million residents and more than 17,000 businesses in eight cities and four sanitation districts. The facility is jointly owned by the cities of San José and Santa Clara and is managed and operated by the City of San José's Environmental Services Department (City of San José 2023).



SOURCE: ESA, 2024; NPMS. 2024

Power the South Bay Project

Figure 3.19-2
Pipelines along the Project Alignment

Stormwater

The Alameda County Flood Control and Water Conservation District and the city of Fremont share responsibility for managing storm drainage within the city of Fremont's limits. The district's primary focus is to plan, design, and inspect the construction of flood control projects and to maintain flood control infrastructure that preserves the natural environment through pollution control regulations (City of Fremont 2011). The city of Fremont has a storm sewer system, also known as a *municipal separate storm sewer system*, which directs runoff into inlets (storm drains) and gutters on local streets, and into pipes and outfalls to a local water body, such as a creek or river (City of Fremont 2024).

The cities of Milpitas, San José, and Santa Clara are members of the Santa Clara Valley Urban Runoff Pollution Prevention Program, which consists of 13 cities that share a common National Pollutant Discharge Elimination System (NPDES) permit to discharge to South San Francisco Bay. The permit was reissued in 1995, 2001, 2009, and 2015 (SCVURPPP 2024). The stormwater drainage system for these cities, which consists 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 creeks. These channelized creeks then direct flows into San Francisco Bay (City of Santa Clara 2010, 2024b; City of San José 2024b). The NPDES permit, referred to as the Municipal Regional Stormwater NPDES Permit, was reissued in 2022 by the San Francisco Bay Regional Water Quality Control Board, which covers stormwater discharges from 76 municipalities and local agencies in Alameda, Contra Costa, San Mateo, Solano, and Santa Clara counties, including the city of Fremont (San Francisco Bay RWQCB 2022).

Telecommunications

Communications in the Project vicinity include telephone services provided by T-Mobile USA, AT&T, Project Genesis, and Verizon Communications; cable television service is provided by several providers including AT&T, Xfinity Internet, EarthLink Internet, T-Mobile Internet, HughesNet Internet, Viasat Internet, several internet providers including AT&T Fiber, Xfinity Internet, Verizon Communications, Viasat Internet, HughesNet Internet, Always On, Tekify Fiber & Wireless, Sail Internet, and Starlink (FCC 2024; Broadbandnow 2024).

Waste Management

The Project area covers multiple local jurisdictions, such as the city of Fremont in Alameda County and the cities of Milpitas, San José, and Santa Clara in Santa Clara County. Therefore, several solid waste disposal facilities would be able to serve the Project.

Disposal facilities for nonmetallic recyclable materials and nonrecyclable materials are available at the Guadelupe Sanitary Landfill, south of San José; Kirby Canyon Landfill, north of the city of Morgan Hill; Newby Island Sanitary Landfill, northwest of Milpitas; Ox Mountain Landfill, east of the city of Half Moon Bay; and the Altamont Pass Landfill, northeast of the city of Livermore. Of these, all waste treatment sites accept construction and demolition debris.

Table 3.19-1 identifies waste generation disposal sites that would serve the Project area.

TABLE 3.19-1
WASTE GENERATION DISPOSAL SITES

Landfill	Location	Total Maximum Permitted Capacity (CY)	Remaining Capacity (CY)	Estimated Date to Close	Distance from Project	Waste accepted
Solid Waste Sites						
Guadelupe Sanitary Landfill	15999 Guadelupe Mines Road, San José, CA 95120	28,238,855	7,518,220	2043	20 miles	Green materials, industrial, mixed municipal, C&D
Kirby Canyon Landfill	910 Coyote Creek Golf Drive, Coyote (in San José), CA 95037	36,400,000	16,191,600	2059	22 miles	Green materials, tires, C&D, industrial, mixed municipal
Newby Island Sanitary Landfill	1601 Dixon Landing Road, Milpitas, CA 95035	57,500,000	16,400,000	2041	>4 miles	Contaminated soil, tires, green materials, sludge, mixed municipal, industrial, C&D
Ox Mountain Landfill	12310 San Mateo Road, Half Moon Bay, CA 94019	60,500,000	22,180,000	2034	23 miles	Tires, other, asbestos, sludge, mixed municipal, C&D
Liquid Waste Sites						
Altamont Pass Landfill	10840 Altamont Pass Road, Livermore, CA 94551	124,400,000	65,400,000	2070	25 miles	Tires, other, mixed municipal, industrial, green materials, contaminated soil, C&D, ash
Hazardous Materials Sites						
Clean Harbors San José Facility	1021 Berryessa Road, San José, CA 95133	474	–	–	5 Miles	Contaminated wastewaters, inorganic cleaning solutions, oils, solvents, laboratory chemicals, paint residues, chemical cleanups

NOTES: C&D = construction and Demolition; CY = cubic yards

SOURCES: CalRecycle 2024a, 2024b, 2024c, 2024d, 2024e; Clean Harbors 2024

3.19.1.2 Users and Area Served by the Existing Utility System

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 existing utility system in the South Bay area receives power from the Los Esteros, Metcalf, Monta Vista, and Newark substations. In particular, the San José/Santa Clara area is generally served from the Newark 230/115 kV substation to the north and the Metcalf 500/230/115 kV substation to the south.

3.19.2 Regulatory Setting

3.19.2.1 Federal

No federal regulations for utilities and service systems are applicable to the Project. Federal regulations pertaining to water supply are outlined in Section 3.10.

3.19.2.2 State

California Integrated Waste Management Act of 19889

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. The Integrated Waste Management Act led to the creation of the California Department of Resources Recycling and Recovery (CalRecycle). CalRecycle oversees and assists local governments in their development and implementation of plans to meet the law's mandates and subsequent legislation (CalRecycle 2025). 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.

California Government Code

Section 4216 of the California Government Code protects underground structures during excavation. This law requires excavators to contact a regional notification center at least 2 days before excavation of any subsurface installations. In the Project area, USA North 811 is the regional notification center. USA North 811 notifies utility providers that have buried lines within 1,000 feet of the excavation, and those providers are required to mark the specific locations of their facilities before excavation.

The code also requires excavators to probe and expose existing utilities, in accordance with state law, before using power equipment. CCR Title 20 contains statutes related to the siting and certification of power plants (CEC 2021).

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. Project compliance with Title 27 would be enforced by the Central Valley (Region 5) 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 a 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. 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 planning, groundwater supplies coordination, and providing a simplified explanation for the general public in the plan.

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 the local regulatory framework below under *City of San José Municipal Code Section 9.10.2480*.)
- Provide readily accessible areas for recycling by occupants.

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 (San José Municipal Code Section 9.10.2480). City of Fremont Ordinance No. 11-2008 also requires 75 percent diversion, and the city of Santa Clara has a 65 percent waste reduction goal as defined in Santa Clara's Construction & Demolition Debris Recycling Program (City of Fremont 2008; City of San José 2024c; City of Santa Clara 2024c). The city of Milpitas does not have a set diversion requirement but has pledged to meet or exceed the state standard of 65 percent (City of Milpitas 2021c).

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.

City of Fremont General Plan

The following goals and policies from the City of Fremont General Plan related to utilities and service systems are relevant to the Project and are provided for informational purposes (City of Fremont 2011).

Goal 9-3: Water, Sewer, and Flood Control. Water, sewer and flood control systems that meet community needs are efficient and environmentally friendly.

Implementation 9-3.1.B: Agency Review of Development Projects. Continue to invite the water, sewer, and flood control districts to review and comment on all regionally significant development projects.

Implementation 9-3.1.D: ACWD Development Requirements. Individual development projects shall conform to ACWD's development specifications and standard specifications for water main installation and applicable ACWD policies related to development and redevelopment.

Goal 9-4: Gas and Electricity. Natural gas and electric infrastructure that meet the needs of new development.

Policy 9-4.1: Planning Consistency. Work with PG&E to ensure that their long-range plans are consistent with the Fremont General Plan and that infrastructure is sufficient to support new development.

Implementation 9-4.1.B: PG&E Project Review. Continue to provide opportunities for PG&E to review and comment on all major development projects.

Policy 9-4.2: Encourage PG&E to Upgrade Infrastructure.

Implementation 9-4.2.A: Infrastructure Improvements. Encourage PG&E to evaluate and upgrade aging infrastructure throughout Fremont.

Goal 9-6: Solid Waste Diversion. Waste diversion maximized with the long-term objective of eliminating landfill waste.

Policy 9-6.1: Increase Waste Diversion. Divert more of the City's [City of Fremont's] solid waste stream to beneficial reuse, with a long-term objective of eliminating landfill waste.

Implementation 9-6.1.A: Expand Waste Diversion Programs. Implement new and expand existing waste diversion programs.

Policy 9-6.2: Protect Public Health and Safety. Implement waste diversion programs that protect public health and safety and the environment.

Implementation 9-6.2.A: Regulate Waste to Protect Public Health. Regulate the handling, processing, and disposal of waste to protect public health. Provide waste management services that minimize environmental impacts and ensure public health and safety.

Policy 9-6.3: Prioritize Waste Diversion Strategies. Implement waste diversion strategies in the following order, to promote the highest and best use of all materials: source reduction including redesign, reuse, recycling, organics processing, energy recovery, and disposal in the landfill as the last option.

Policy 9-6.4: Consider Environmental Benefits and Impacts. Implement waste diversion strategies that provide additional environmental benefits when feasible, such as energy recovery, clean water, and reduced greenhouse gas emissions.

Implementation 9-6.4.A: Expand Litter Reduction Efforts. Implement programs that minimize litter and pollution generated within the City.

Implementation 9-6.4.B: Support Businesses with an Environmental Focus. Encourage and support local businesses through programs such as the state's Recycled Market Development Zone.

Policy 9-6.5: Support Regional Public and Private Waste Diversion. Support external, regional, global, and other public and private initiatives that are aligned with the City's waste diversion goals.

Implementation 9-6.5.A: Encourage Redesign of Products. Encourage redesign of consumer products so that they do not become waste, requiring end of life disposal, but are incorporated back into useful products of materials for other processes.

Policy 9-7.1: Develop/Utilize Infrastructure and Processing Facilities. Develop or utilize infrastructure that leverages contracts, partnerships, and new technologies to ensure that the required processing capacity exists to effectively manage the City's waste and achieve diversion goals. Utilize existing infrastructure when possible to support innovative "take back" programs and recycling or processing of waste.

Implementation 9-7.1.A: Expand Diversion Processing Facilities. Improve and increase the capability of local or regional reuse, recycling, and organics processing facilities.

Implementation 9-7.1.C: Waste Disposal. Provide continuous, efficient, cost-effective collection, processing, and disposal services, utilizing the waste management infrastructure.

Implementation 9-7.1.D: Evaluate Potential Materials for Diversion. Implement diversion programs that capture recyclable materials currently being sent to the landfill. Increase the amount of recyclable material collected and processed before it gets to the landfill.

Implementation 9-7.1.E: Support Tools and Infrastructure. Support the development of tools and infrastructure to increase the quantity and quality of divertible materials collected and processed.

Policy 9-7.2: Require Development Projects to Provide for Waste Handling. Ensure all development projects provide adequate space, design, and labeling for indoor and outdoor waste management supplies and equipment, such as trash enclosures.

Implementation 9-7.2.A: Provide Waste Handling Guidelines to Applicants. Require all applicants to incorporate the City's most current waste handling guidelines into development projects.

City of Fremont Ordinance No. 11-2008

The following goal of City of Fremont Ordinance No. 11-2008 related to utilities and service systems is relevant to the Project and is provided for informational purposes (City of Fremont 2008).

> **Section 1. Legislative Findings and Declarations.** The [Fremont] City Council hereby adopts the following findings and declarations in support of this ordinance.
>
> > (b) The voters of Alameda County, through the Waste Reduction and Recycling Act of 1990 (Measure D), have adopted a policy goal to divert from the landfill 75 percent of the total tonnage of materials generated in Alameda County by the year 2010. In 1999, the City of Fremont also adopted a goal of 75 percent diversion from the landfill by 2010.

Santa Clara Valley Water District 2020 Urban Water Management Plan

California's Urban Water Management Planning Act requires that "every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 AF of water annually prepare and adopt, in accordance with prescribed requirements, an urban water management plan." Valley Water's UWMP documents information on water supply, water use, recycled water, water conservation programs, water shortage contingency planning, and water supply reliability in the Santa Clara County under different scenarios. Urban water suppliers in California are required by state law to prepare a UWMP every 5 years. The plan is a water agency's long-term water resource planning document to ensure that adequate water supplies are available to meet existing and future water needs within the agency's service area. The UWMP provides an overall picture of a water agency's current and future water conditions and management over the next 25 years.

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 sent directly to water users. Climate change, new regulatory requirements, and population growth could affect countywide water supply and demand in the future (Valley Water 2021a).

City of Milpitas General Plan

The following goals and policies from the City of Milpitas General Plan related to utilities and service systems are relevant to the Project and are provided for informational purposes (City of Milpitas 2021c).

> **Goal UCS-1:** Maintain and improve Milpitas' infrastructure to provide safe, reliable, and high-quality services.
>
> > ***Policy UCS 1-1*:** Provide adequate public infrastructure (i.e., street, sewer, water, and storm drain systems) to meet the needs of existing and future development.
> >
> > ***Policy UCS 1-2*:** Require development and long-term planning projects to be consistent with all applicable City [of Milpitas] infrastructure plans, including the Water Master

Plan, the UWMP, the Sewer Master Plan, the Sewer System Management Plan, the Green Infrastructure Plan, and the Capital Improvement Program.

***Policy UCS 1-3*:** Require all future development projects to analyze their infrastructure and service impacts and either demonstrate that the City's existing infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be diminished or impaired, or make the necessary improvements to mitigate all potential impacts.

***Policy UCS 1-4*:** The City shall prioritize infrastructure improvements in areas identified for economic growth in the next 5–10 years.

***Policy UCS 5-2*:** Implement and enforce the provisions of the City's Source Reduction and Recycling Program and update the program as necessary to meet or exceed the State waste diversion requirements.

Goal UCS-6: Ensure adequate, reliable electric and natural gas service is available to all users.

***Policy UCS 6-1*:** Work cooperatively with utility providers to ensure the provision of adequate electric power and natural gas services and facilities to serve the needs of existing and future residents and businesses.

***Policy UCS 6-2*:** Coordinate with service providers in the siting and design of power facilities to minimize environmental, aesthetic, and safety impacts.

***Policy UCS 6-3*:** Require that all new power and gas lines and transformers are installed underground where feasible and promote the undergrounding of existing overhead facilities.

Milpitas Urban Water Management Plan

As described above under *California Urban Water Management Planning Act*, the California Water Code requires water suppliers that provide water for municipal purposes to more than 3,000 customers or that provide more than 3,000 AF (approximately 980 million gallons) of water annually to prepare and adopt a UWMP and update it every 5 years. The City of Milpitas adopted its most recent UWMP in June 2021 (City of Milpitas 2021a).

City of San José General Plan

The following policies from the City of San José General Plan related to utilities and service systems are relevant to the Project and are provided for informational purposes (City of San José 2024a).

***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-1.10*:** 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-3.5*:** Require mitigation for development which will have the potential to reduce downstream Level of Service (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 stormwaters 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 NPDES permit.

***Policy IN-3.13*:** Encourage the use of flood protection guidelines in development, such as those recommended by the SCVWD [Santa Clara Valley Water District], Federal Emergency Management Agency (FEMA), and Department of Water Resources (DWR).

***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 ROWs [rights-of-way].

***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.

City of San José Municipal Code Section 9.10.2480

The following requirements from the City of San José Municipal Code Section 9.10.2480 related to utilities and service systems are relevant to the Project and are provided for informational purposes (City of San José 2004c).

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 (CALGreen), 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.*

City of San José Urban Water Management Plans

As described above under *California Urban Water Management Planning Act*, suppliers providing water for municipal purposes to more than 3,000 customers or providing more than 3,000 AF of water annually must prepare and adopt an UWMP and update it every 5 years. The City of San José adopted its most recent UWMP in June 2021. This document is the 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. The UWMP examines current and projected water supplies, demands, and sources; details Muni Water's WSCP; presents a comparison of the 2020 water use target; and discusses the City of San José's conservation efforts; and documents San José's planning efforts to ensure a reliable, high-quality supply of water to the public (City of San José 2021a).

Water service to the downtown area is provided by SJW, which obtains its water from groundwater (approximately 43 percent), purchased or imported surface water (52 percent), recycled water (2 percent), and local mountain surface water (3 percent) (SJW 2021a).

City of Santa Clara General Plan

The following policies from the City of Santa Clara General Plan related to utilities and service systems are relevant to the Project and are provided for informational purposes (City of Santa Clara 2010).

***Policy 5.3.1-P17*:** Promote economic vitality by maintaining the City's level of service for public facilities and infrastructure, including affordable utilities and high-quality telecommunications.

***Policy 5.3.1-P28*:** Encourage undergrounding of new utility lines and utility equipment throughout the City.

***Policy 5.8.2-P3*:** Encourage undergrounding of utilities and utility equipment within the public ROW and site these facilities to provide opportunities for street trees and adequate sidewalks.

***Policy 5.10.1-P6*:** Require adequate wastewater treatment and sewer conveyance capacity for all new development.

***Policy 5.10.1-P7*:** Encourage the use of local recycling facilities to divert waste from landfills.

***Policy 5.10.3-P10*:** Maintain the City's level of service for high quality utilities and telecommunications infrastructure.

***Policy 5.10.3-P12*:** Work with SVP to implement adequate energy distribution facilities to meet the demand generated by new development.

***Policy 5.10.3-P14*:** Work with PG&E to ensure an adequate supply of natural gas to meet the demand generated by new development.

***Policy 5.10.4-P2*:** Expand water conservation and reuse efforts throughout the City in order to meet the conservation goals in the City's adopted UWMP to reduce per capita water use by 2020.

***Policy 5.10.4-P4*:** Require an adequate water supply and water quality for all new development.

***Policy 5.10.4-P5*:** Prohibit new development that would reduce water quality below acceptable state and local standards.

City of Santa Clara Construction & Demolition Debris Recycling Program

The following requirement from the City of Santa Clara Construction & Demolition Debris Recycling Program related to utilities and service systems is relevant to the Project and is provided for informational purposes (City of Santa Clara 2024c).

The city of Santa Clara requires applicants seeking construction and/or demolition permits for projects greater than 5,000 square feet to track and divert a minimum of 65 percent of the discards created during the project. Diversion is achieved through recycling or reuse. All contractors and subcontractors are responsible for the proper management of C&D debris on the project site. This may involve separating recyclable materials from nonrecyclable materials before hauling to a recycling or disposal facility to achieve 65 percent diversion.

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 LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).
- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.19.3.1 LSPGC Applicant-Proposed Measures

LSPGC has committed to implementing the following Applicant-proposed measures (APMs) to reduce potential impacts of the Project on utilities and service systems. The impact analysis assumes that the following APMs would be implemented by LSPGC as part of their portion of work for the Project.

- **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.
- **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 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.

3.19.3.2 PG&E Best Management Practices and Field Protocols

PG&E has proposed no best management practices or field protocols pertaining to utilities and service systems within PG&E's portion of the Project.

3.19.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to utilities and service systems within SVP's portion of the Project.

3.19.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, 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 storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

b) Have insufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it 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 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 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 analysis of Project effects related to utilities and service systems discusses temporary construction-related impacts as well as longer term impacts that could be caused during Project operation and maintenance (O&M).

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 storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

The Project would not result in the permanent construction of new or expanded water facilities or wastewater facilities such as restrooms, nor would it require the expansion of stormwater drainage or natural gas utilities beyond what is discussed for the Project in Chapter 2, *Project Description*. No impacts on new or expanded water, wastewater treatment, stormwater drainage, or natural gas utilities would occur during the Project's O&M phase. Therefore, impacts related to new or expanded water facilities, wastewater treatment, stormwater drainage, or natural gas utilities during Project O&M are not discussed further. (*No Impact)*

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. (*Less than Significant*)

As discussed in Chapter 2, the Project would involve constructing new electrical power and telecommunication utilities and modifying the existing PG&E Newark 230 kV Substation and

SVP NRS 230 kV Substation. The environmental effects of these new electrical transmission features 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.

The construction of Project components could require minor relocation of existing utilities, such as gas lines, if the new transmission lines cannot be relocated to avoid the utilities. LSPGC and/or its construction contractor would identify, mark, and locate existing subsurface utilities before the start of activities that require excavation. This work 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.

The Project would install new electrical and telecommunication transmission lines and modify existing electrical facilities; however, LSPGC does not have any existing ROWs within the Project area. LSPGC would acquire all necessary ROWs for the Project, which could include easements, permits, grants, and/or franchise rights of varying sizes and width. The specific widths of necessary ROWs along the Project alignments would be refined during final engineering. Acquisition of land, ROWs, or easements is discussed further in Section 2.7, *Land Ownership, Rights-of-Way, and Easements*.

Should underground utilities be identified during Project construction, 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 where practicable, but some utilities would require relocation. Utilities that could require relocation may include sanitary sewer, stormwater, gas, water, electricity, and telecommunication. LSPGC would implement **APM UTIL-1: Coordination with Utilities**, which would require advanced notification of the Project and coordination with utility providers.

Water

Construction

As discussed in Section 2.8.4, *Site Preparation*, the Project may require minor relocation of utilities if they cannot be avoided. Such utilities could include water pipes. 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, as discussed previously, LSPGC would implement APM UTIL-1, which would require coordination with utility providers. Therefore, the Project would not damage or interfere with any underground water utilities.

During Project construction, water would be used for dust control regularly in the staging areas but less frequently during duct bank construction. Project construction would require approximately 8 million gallons of water over the 26-month construction duration. Water used for construction activities would be trucked in from a nearby off-site location. Construction-related water use would be temporary, and the water would originate from a local source that has existing capacity to serve the Project's needs; this may include the use of potable, recycled, or reclaimed water or groundwater sources. Water sources would be used in accordance with applicable

regulations and permits acquired to meet the Project's construction needs. Water would likely be obtained from water suppliers in the region, such as ACWD, the city of Milpitas, Valley Water, Muni Water, or SJW, all of which have an adequate water supply to serve the Project's water demand throughout the 26-month construction period. Therefore, the Project would not result in the expansion or construction of water facilities, and this impact would be **less than significant**.

Wastewater Treatment

Construction

As discussed in Section 2.8.12, *Waste Generation and Management*, 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. Drilling fluid would be disposed of at the Altamont Pass Landfill or another approved facility.

Only minimal wastewater generation is anticipated during Project construction activities. Wastewater would be disposed of at licensed off-site facilities such as the Union Sanitary District Wastewater Facility and the San José–Santa Clara RWF. Therefore, the Project would not require the expansion of any additional wastewater facilities. Furthermore, to prevent damage to sewer utilities, 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 equipment to locate buried lines.

Because the Project would not require any additional wastewater facilities, the Project would avoid any damage or relocation of sewer lines. With the implementation of APM UTIL-1, this impact would be **less than significant**.

Stormwater Drainage

Construction

The Project would have the potential to interfere with stormwater drainage in the Project area, either by relocating established stormwater infrastructure or by altering water drainage patterns. As described in Chapter 2, the Project would implement best management practices (BMPs) as required by the Project's stormwater pollution prevention plan (SWPPP) intended to reduce construction-related stormwater runoff such that new or expanded stormwater infrastructure would not be required.

As described in Section 2.8.9, *Dust, Erosion, and Runoff Controls*, the SWPPP would designate BMPs that would be followed during construction to help stabilize disturbed areas and reduce erosion, sedimentation, and pollutant transport. The SWPPP would designate specific BMPs based on site conditions; among the types of BMPs that may be used are silt fencing, straw wattles, erosion control blankets, and riprap. The SWPPP BMPs would remain in place and be maintained until new vegetation is established or sites are stabilized.

Some watercourse crossings in the Project area would require permanent improvements. LSPGC has identified eight watercourse crossing locations that follow the Project alignment. The Project would use horizontal bore (jack-and-bore or micro-tunnel) or horizontal directional drilling construction techniques at the locations of waterway and culvert crossings (see Section 2.8.6, *Underground Transmission Line Construction*). The locations of watercourse crossings are identified in Figures 2-2a through 2-2d.

Project construction would not require a stormwater management system for runoff. Runoff from the Project would be handled according to the Project-specific SWPPP discussed above. Construction of the Project may alter or relocate stormwater drainage, but with implementation of a SWPPP and APM UTIL-1, impacts would be **less than significant**.

Electric Power

Construction

The Project would include construction and operation of a new 230 kV alternating current (AC) transmission line that would connect the existing PG&E Newark 230 and SVP NRS 230 kV substations. The proposed transmission line would alternate overhead and underground for 2 and 10 miles, respectively, with 14 new overhead transmission structures.

As discussed in Section 2.8.4, PG&E may need to reroute existing substation getaways at the existing PG&E Newark Substation, including raising or lowering some existing transmission lines to provide space for the LSPGC tie-in at the substation. In addition, SVP may need to reroute existing substation getaways at the existing SVP NRS Substation. Utilities would be avoided where practicable, but some utilities would require relocation. LSPGC would work with the owner of those utilities to determine whether design changes could be made or whether utility relocation would be necessary.

The Project would have connections to existing overhead or underground distribution lines near the Project alignments and sites for supply of construction power. A temporary distribution line would be installed overhead on wood poles or underground to provide temporary power to the staging areas during construction. Generators would be used temporarily at the staging areas as a contingency if distribution power is not available in a timely manner before the start of construction. Temporary use of generators would be required during construction of the underground transmission line. The exact locations of temporary distribution lines are not yet known; however, impacts from the temporary power generation would occur within existing road ROWs and the staging area boundaries.

The Project would not require extensive interruptions to electrical service. The Project would rely on temporary distribution lines or portable generators, as needed, and would implement APM UTIL-1. Therefore, this impact would be **less than significant**.

Operations and Maintenance

As described in Section 2.11, *Operation and Maintenance*, Project O&M would be conducted in accordance with all applicable Federal Energy Regulatory Commission, North American Electric Reliability Corporation, the CPUC, and CAISO requirements. Any O&M 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 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.

Once construction is complete, the Project would not be staffed daily. LSPGC would hire one additional California-based technician to accommodate the integration and O&M of the Project. The technician would perform minor repairs and oversee outside contractors for Project maintenance and would 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. The overhead transmission line would be visually inspected from the ground periodically by a crew of two or more technicians. If issues are found during inspections, the transmission line component would undergo maintenance as required. Both PG&E and SVP would continue regular O&M activities at the PG&E Newark 230 kV and SVP NRS 230 kV substations, respectively.

Project operations would not require or result in the relocation of construction of electric power, the construction or relocation of which could cause significant environmental effects. Therefore, this impact would be **less than significant**.

Natural Gas

Construction

Natural gas transmission pipelines in the Project area generally occur parallel to SR 237 and I-880. The Project would intersect and parallel one existing natural gas line that runs along Fremont Boulevard near I-880 (USDOT 2024; ARK 2025). The Project would also intersect and parallel two pipelines that run along Lafayette Street south of SR 237 (USDOT 2024; ARK 2025). Figure 3.19-2 shows natural gas lines in the Project area. Further, as described in Section 2.8.4, Project 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.

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 where practicable, but some utilities would require relocation. The Project would circumvent natural gas pipelines when possible and would conduct minor relocation of natural gas pipelines only when no other avoidance options are available. Also, the Project would alert local agencies before construction to minimize impacts on natural gas facilities

To prevent damage to 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. This 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. Therefore, it is not anticipated that the Project would result in significant

environmental effects as a result of relocating existing natural gas pipelines. Further, the Project would not require the construction of new natural gas utilities. For these reasons, and with implementation of APM UTIL-1, this impact would be **less than significant**.

Telecommunication Facilities

Construction

As discussed in Section 2.6.1.3, *Telecommunication Lines,* the Project would include telecommunications infrastructure that would connect between the PG&E Newark 230 kV and SVP NRS 230 kV substations. It is anticipated that these telecommunication lines would all be co-located with the new transmission line and that no separate overhead lines or wireless connections (e.g., antennas) would be included. Specifically, two telecommunication fiber optic cables would be installed along the transmission line. The telecommunication cables would be installed underground along the underground portions of the route and aboveground along the overhead portions of the route. Construction installation methods and scheduling are described further in Chapter 2.

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 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 where practicable, but some utilities would require relocation.

With the implementation of APM UTIL-1, in addition to adherence with 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. For these reasons, this impact would be **less than significant**.

Operations and Maintenance

As described in Section 2.11, Project O&M would be conducted in accordance with all applicable Federal Energy Regulatory Commission, North American Electric Reliability Corporation, the CPUC, or CAISO requirements. Any O&M 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 O&M of the Project. The technician would perform minor repairs and oversee outside contractors for Project maintenance, and would 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. The overhead transmission line would be visually inspected from the ground periodically

by a crew of two or more technicians. If issues are found during inspections, the transmission line component would undergo maintenance as required.

Operation of the Project 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 environmental impact of these components 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 or 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 when possible 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 respective utility providers, which involves construction methods to ensure that the integrity of existing utilities is not compromised. Therefore, the Project's impact on this criterion 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.

As described in Section 2.8.10, *Water Use and Dewatering*, water would be necessary to facilitate restoration of temporarily affected areas after the completion of construction. However, the Project would not require permanent water sources for O&M activities. O&M personnel would be responsible for providing their own drinking water. Therefore, the Project would have sufficient water supplies available to serve the Project during all water year types and there would be no impact. (*No Impact*)

Impact 3.19-2: Project construction 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 described in Section 2.8.10, water would be used for dust control regularly in the staging areas but less frequently 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. Up to approximately 8 million gallons of water would be used during the approximately 26-month construction duration. Construction-related water use would be temporary, and the water would originate from a local source that has the existing capacity to service the Project's needs; this may include the use of potable, recycled, or reclaimed water or groundwater sources. Construction crews would be responsible for providing their own drinking water. Water would be used in accordance with applicable regulations and permits acquired to meet the Project's construction needs.

Anticipated water use for the PG&E Newark 230 kV and SVP NRS 230 kV substations have been accounted for within the total amount for the Project.

As described in Section 3.19.1, *Environmental Setting,* water would likely be obtained from water suppliers in the region, such as ACWD, the city of Milpitas, Valley Water, Muni Water, or SJW. Based on projected water supply and demand, ACWD and Valley Water estimate having sufficient excess supplies in the years 2025–2030, when the Project's construction period is anticipated to occur. Specifically, ACWD and Valley Water have estimated their excess supplies in 2030 to be approximately 7,800 AF (2,542 million gallons) and 193,000 AF (62,889 million gallons), respectively, both of which would be more than sufficient to serve the Project. Water supplies from the city of Milpitas and city of San José municipal sources may be used to serve the Project, although the city of Milpitas, Muni Water, and SJW do not project substantial excess supplies in the 2025–2030 time period.

Because of the short and temporary construction schedule during which water would be required, and because current and future water supplies are expected to meet local demand, the Project would have sufficient water supply. Therefore, the Project's impact on water supply during construction 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 operations and maintenance. Impacts related to wastewater generation during operation are not discussed further. (*No Impact*)

Impact 3.19-3: Project construction 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. (*Less than Significant*)

Construction

As described in Impact 3.19-1, 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.

Only minimal wastewater generation is anticipated during Project construction activities. Wastewater produced during construction activities would be disposed of at licensed off-site facilities such as the Union Sanitary District Wastewater Facility and San José-Santa Clara RWF. Therefore, the Project would not require the expansion of any additional wastewater facilities.

Both wastewater treatment plants would have adequate capacity to serve construction wastewater needs in addition to the provider's existing commitments.

The modifications to the PG&E Newark 230 kV and SVP NRS 230 kV substations would occur within and adjacent to the existing substation facilities. Construction of these modifications would occur concurrently with construction of the rest of the Project, for a limited duration, and these modifications would not result in the construction of new sanitary facilities. Therefore, this 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*)

Construction

As discussed in Section 2.8.12, solid wastes generated during Project construction would be primarily nonhazardous wastes, consisting of wood, metal, paper, and plastic packaging. Construction debris volumes are estimated to total approximately 1,500 cubic yards (CY) and up to 30,000 CY of excavated soils. Construction waste would be disposed of properly and in accordance with all applicable federal, state, and local laws regarding solid and hazardous waste. Construction waste that cannot be recycled would ultimately be disposed of at the landfills identified above in Table 3.19-1. The Project would transport excess soil to landfills that recycle excess soil materials as part of landfill operations where possible.

As provided in Table 3.19-1, the surrounding landfills would have adequate capacity to meet the Project's solid waste needs during construction. The Project would generate approximately 1,500 cubic yards of construction debris and approximately 30,000 cubic yards of excavated soils. The aggregate capacity of the identified landfills exceed more than 60 million CY, therefore, there would be sufficient capacity for the Project's solid wastes.

Additionally, the Project would divert C&D waste during construction, which would be consistent with policies of the cities of Fremont and San José to reach their 75 percent waste diversion rates (City of Fremont Ordinance No.11-2008; San José Municipal Code Section 9.10.2480) City of Fremont 2008; City of San José 2024c). The Project would also divert C&D according to the City of Santa Clara's policies to reach its 65 percent waste reduction goal (City of Santa Clara 2024a).

Thus, the Project would not generate solid waste more than state or local standards, or more than the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, and this impact would be **less than significant**.

Operations and Maintenance

The primary source of solid waste generation during Project O&M would be the replacement of poles and other hardware. Solid waste generation is expected to be nominal over the Project's life span and, as provided above, the landfills and other waste disposal sites have the capacity to accept solid waste generated during Project O&M activities in addition to existing and future demand. This 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.

There are no federal regulations pertaining to utilities and service systems that apply to the Project, therefore, there would be no impact with compliance with federal management and reduction statutes and regulations related to waste.

The Project's construction activities would not generate a substantial amount of solid waste. As discussed previously, solid waste produced during construction would be recycled or disposed of at a nearby licensed landfill. The Project would comply with state and local management and reduction statutes and regulations related to solid waste, including the California Integrated Waste Reduction Act. Further, the Project would divert C&D waste during construction consistent with City of Fremont Ordinance No.11-2008, San José Municipal Code Section 9.10.2480, and the City of Santa Clara's Construction & Demolition Debris Recycling Program (City of Fremont 2008; City of San José 2024c; City of Santa Clara 2024a).

As discussed in Section 2.12.1, *Decommissioning,* the Project would be in operation or would be used indefinitely, with no current established plans or timing for decommissioning. Additionally, there are no current plans to decommission the PG&E Newark 230 kV and SVP NRS 230 kV substations, and it is assumed that PG&E and SVP would retain their respective facilities as long as they are useful. Since the existing substations are already built and operational, their decommissioning is not subject to analysis in this EIR. Therefore, there are no reasonably foreseeable plans for the disposal, recycling, or future abandonment of the Project facilities. The Project would not violate any solid waste management and reduction statutes or regulations.

For these reasons, the Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, and there would be no impact. (*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 modifications to the PG&E Newark 230 kV and SVP NRS 230 kV substations would occur within and adjacent to the existing substations, which do not have structures that are subject to corrosion. Incompatible metallic utilities are not located within or adjacent to the existing

substations. Therefore, the Project's substation modifications would not increase the rate of corrosion of adjacent utility lines. (*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 3.19.2.1, *Regional Setting*, above.

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 is a function of 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 cross each other. Therefore, all Project components that would be constructed close to existing utility lines could have corrosive impacts on the existing lines as a result 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 2025:5.19–5.28). A preliminary analysis of the Project's potential for electromagnetic interference and induced current touch potential was completed and is provided in **Appendix F** (ARK 2025).

Construction

Power or other utility lines may be installed temporarily in one or more staging areas to support Project construction activities, but these power lines and poles would be removed at the conclusion of this work. Because these additional utility lines would be 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, this impact would be **less than significant**.

Operations and Maintenance

The only known existing metallic utilities near the existing PG&E Newark 230 kV Substation are overhead PG&E electric distribution and transmission lines and the substation itself. No metallic pipelines were identified near the PG&E Newark 230 kV Substation (USDOT 2024).

The Newark to NRS 230 kV AC transmission line may have the potential to affect an existing metallic pipeline. The Project includes construction and operation of a new 230 kV AC transmission line would cross and parallel one natural gas pipeline between the PG&E Newark 230 kV and SVP NRS 230 kV substations. The pipeline would follow the Project alignment for

approximately 3 miles along Fremont Boulevard before intersecting with the alignment near Dixon Landing Road (USDOT 2024; ARK 2025).

There are several metallic utilities near the SVP NRS 230 kV Substation, including electric distribution and transmission lines and the substation itself. Two gas pipelines have been identified that would cross and parallel the transmission line near the NRS SVP 230 kV substation along SR 237 and along Lafayette Street south of SR 237, in the city of Santa Clara (USDOT 2024; ARK 2025).

As noted in Section 3.19.1.1 under *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 (ARK 2025). However, the memorandum lacks verified information upon which to prepare an analysis yielding sufficient data and findings to assess the potential for corrosion of adjacent utility lines or increase the rate of corrosion (i.e., metallic natural gas lines).

To reduce impacts on existing and potentially unknown utility infrastructure attributable to AC-induced corrosion, LSPGC proposed 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: (1) would include a detailed analysis of the known pipeline and any additional metallic pipelines or other utilities identified during utility surveys; (2) would identify implementable measures to avoid corrosion potential; and (3) would present commitments to 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, coupled with the known presence of three active natural gas lines in close proximity to the 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. **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.

Mitigation: Implement Mitigation Measure 3.19-5.

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 three 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 230 kV transmission lines shall be coordinated with the applicable utility owners to definitively locate each utility relative to the Newark to NRS 230 kV 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 APM UTIL-1, APM HAZ-5, and Mitigation Measure 3.19-5, the impacts related to AC-induced corrosion attributable to the Project would be **less than significant**.

3.19.6 Cumulative Effects Analysis

The geographic scope of analysis for cumulative utilities and service system impacts includes the scope of all service and utility providers that service 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. 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 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 existing utility system in the South Bay area receives power from the Los Esteros, Metcalf, Monta Vista, and Newark substations. In particular, the San José/SVP area is generally served from the Newark 230/115 kV substation to the north and the Metcalf 500/230/115 kV substation the south.

The Project area lies within the jurisdictional boundaries of the city of Fremont in Alameda County and the cities of Milpitas, San José, and Santa Clara in Santa Clara County. Each city's respective General Plan and urban water management plan (UWMP), the California Code of Regulations (CCR), and local relevant websites were reviewed for regulatory information and for background information about water, gas and electrical, 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, nor would the Project require the expansion of stormwater drainage or natural gas utilities beyond what is discussed for the Project in Chapter 2 of this EIR. No impacts on water facilities, wastewater treatment, stormwater drainage, or natural gas utilities would occur during the Project's O&M phase. Therefore, cumulative impacts related to wastewater treatment, stormwater drainage, or natural gas utilities during Project O&M are not discussed further. (*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 storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause 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 Newark 230 kV Substation and SVP NRS 230 kV Substation, and could require minor relocation of existing utilities, such as gas lines, if the new transmission lines cannot be relocated to avoid the utilities. However, the Project would circumvent existing utilities when possible and would conduct 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.

The Project, however, would not require new or expanded utility services, as existing service capacities would meet Project needs adequately. The Project would coordinate with third party utility companies in the area when conflicts with existing utility equipment or facilities would 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. The Project's incremental, less-than-significant impact, when combined with the incremental impacts of the cumulative projects, would not result in a significant cumulative impact associated with the expansion of utilities and service systems. 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 8 million gallons of water during the Project's construction, while water requirements during O&M would be minimal.

To determine whether the Project's anticipated cumulative water requirements could be met during normal, single dry, and multiple dry years, the UWMPs in the Project region were reviewed. The review determined that the ACWD and Valley 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 uses. And as discussed under Impact 3.19-2, the Project's construction-related water consumption would be temporary, limited to the anticipated 26 months of construction. This demand could be met using a combination of ACWD and Valley 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. 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—for which 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. The Project's impact would be less than cumulatively considerable, and this 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 under Impact 3.19-3, construction of the Project would result in a less-than-significant demand for wastewater treatment during the anticipated 26-month duration of construction. The impact would not combine with the incremental impacts of other projects identified in Section 3.0, *Environmental Setting*. Only minimal wastewater generation is anticipated during Project construction activities. Wastewater produced during construction activities would be disposed of at licensed off-site facilities such as the Union Sanitary District Wastewater Facility and San José-Santa Clara RWF, both of which have adequate capacity to service construction wastewater needs in addition to the providers' existing commitments. The Project would not require the expansion of any additional wastewater facilities.

Other projects in the cumulative scenario (listed in Table 3.0-1) may generate wastewater treatment demands. However, the Project would only generate minimal wastewater during the 26-month construction period, and no other ongoing demand would occur (e.g., during Project O&M). Project construction would not contribute to a significant cumulative effect due to a determination by the wastewater treatment provider that serves the Project that it has inadequate capacity to serve the Project's projected demand, in addition to the provider's existing commitments. Further, Project operations 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 this 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 3.19-1. 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 wastes, consisting of wood, metal, paper, and plastic packaging up to 1,500 CY and approximately 30,000 CY of excavated material after fill activities.

The Project would recycle, reuse, or otherwise divert some portion of this solid waste (as feasible). The Project would comply with applicable laws, regulations, plans and policies such as the Integrated Waste Management Act, described in Section 3.19.2.2. The cumulative projects would similarly adhere to the 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. The Project, in combination with the cumulative projects, would have a **less-than-significant impact** on this criterion.

Mitigation: None required.

3.19.6.5 Criterion e)

As discussed above, 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 impacts relative to federal, state, and local solid waste management policies and regulations. (*No Impact*)

3.19.6.6 Criterion f)

Impact C.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*)

As discussed in Impact 3.19-5, 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). The Project would also implement APM HAZ-5 and Mitigation Measure 3.19-5, which would involve preparation of an induction study requiring concurrence by the CPUC with 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 levels.

However, the cumulative projects 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. The cumulative projects are expected to adhere to similar rules and regulations, and could implement similar protections. For these reasons, 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 alternating current impacts, and there would be a **less-than-significant impact** for this criterion.

> **Mitigation:** Implement Mitigation Measure 3.19-5.
>
> **Significance after Mitigation:** With implementation of Mitigation Measure 3.19-5, APM HAZ-5, and APM UTIL-1, the cumulative impacts related to AC-induced corrosion would be less than significant.

3.19.7 References

ACWD (Alameda County Water District). 2021a. *Alameda County Water District Urban Water Management Plan 2020–2025.* Final Version Including Minor Edits. Available: https://www.acwd.org/DocumentCenter/View/4116/Final-2020-2025- UWMP-Version-Including-Minor-Edits. Accessed October 24, 2024.

ACWD (Alameda County Water District). 2021b. *Alameda County Water District Water Shortage Contingency Plan, May 2021*. Available: https://www.acwd.org/DocumentCenter/View/3817/Final-Water-Shortage-Contingency-Plan-May-2021. Accessed February 19, 2025.

ACWD (Alameda County Water District). 2023. ACWD's Water Sources & Supplies. Available: https://www.acwd.org/100/ACWDs-Water-Sources-Supplies. Accessed October 23, 2024.

ARK Engineering & Technical Services, Inc. 2025. Memorandum regarding: "Power the South Bay Transmission Reliability Project, Electromagnetic Effects on AC High Voltage Circuit on Nearby Utilities – Revision 3, Alameda and Santa Clara Counties, California". January 20.

Broadbandnow. 2024. Find Every Internet Provider In Your Area. Available: https://broadbandnow.com/. Accessed October 24, 2024.

CalRecycle (California Department of Resources Recycling and Recovery). 2025. *Enforcement*. Available: https://calrecycle.ca.gov/lgcentral/enforcement/. Accessed March 4, 2025.

CalRecycle (California Department of Resources Recycling and Recovery). 2024a. SWIS Facility/Site Activity Details: Guadalupe Landfill (43-AN-0015). Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1376?siteID=3399. Accessed October 24, 2024.

CalRecycle (California Department of Resources Recycling and Recovery). 2024b. SWIS Facility/Site Summary: Kirby Canyon Recycl. & Disp. Facility (43-AN-0008). Available: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/3393. Accessed October 24, 2024.

CalRecycle (California Department of Resources Recycling and Recovery). 2024c. SWIS Facility/Site Activity Details: Newby Island Sanitary Landfill (43-AN-0003). Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1362?siteID=3388. Accessed October 24, 2024.

CalRecycle (California Department of Resources Recycling and Recovery). 2024d. SWIS Facility/Site Activity Details: Corinda Los Trancos Landfill (Ox Mtn) (41-AN-0002). Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223. Accessed October 24, 2024.

CalRecycle (California Department of Resources Recycling and Recovery). 2024e. SWIS Facility/Site Activity Details: Altamont Landfill & Resource Recovery (01-AA-0009). Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/7?siteID=7. Accessed December 27, 2024.

CEC (California Energy Commission). 2021. California Code of Regulations Title 20. Public Utilities and Energy. Division 2. State Energy Resources Conservation and Development Commission. Current as of July 2021. Available: https://www.energy.ca.gov/sites/default/files/2021-07/Title%2020%20Updated%20July%2023%2C%202021.pdf. Accessed October 29, 2024.

City of Fremont. 2008. Ordinance No. 11-2008, "An Ordinance of the City of Fremont Amending the Fremont Municipal Code by Adding a New Article 9, Title IV Chapter 2 (Solid Waste, Recyclables, and Yard Waste Management) to Establish Construction and Demolition Debris Diversion and Recycling Requirements." Adopted September 2, 2008. Available: https://www.stopwaste.org/sites/default/files/Documents/fremont-cd-ordinance.pdf. Accessed October 24, 2024.

City of Fremont. 2011. *City of Fremont General Plan*. Chapter 9, "Public Facilities." Adopted December 2011. Available: https://www.fremont.gov/home/showpublisheddocument/807/637750630878430000. Accessed October 23, 2024.

City of Fremont. 2024. Storm Drain Dumping. Available: https://www.fremont.gov/government/departments/environmental-services/illegaldumping/storm-drain-dumping. Accessed October 23, 2024.

City of Milpitas. 2021a. *The City of Milpitas 2020 Urban Water Management Plan.* July 1, 2021. Available: https://www.milpitas.gov/DocumentCenter/View/1153/Urban-Water-Management-Plan---2020-PDF. Accessed October 23, 2024.

City of Milpitas. 2021b. *2020 Water Shortage Contingency Plan*. July 1, 2021. Available: https://www.milpitas.gov/DocumentCenter/View/2328/Water-Shortage-Contingency-Plan---2020-PDF. Accessed February 19, 2025.

City of Milpitas. 2021c. *City of Milpitas General Plan 2040*. Adopted March 9, 2021. Available: https://www.milpitas.gov/DocumentCenter/View/1147/Milpitas-2040-General-Plan-PDF. Accessed October 23, 2024.

City of San José. 2013. Water Service Provider. San José GIS Open Data. Available: https://gisdata-csj.opendata.arcgis.com/datasets/CSJ::water-service-provider/explore?location=37.372138%2C-121.846757%2C11.02. Accessed October 23, 2024.

City of San José. 2021a. 2020 Urban Water Management Plan. Available: https://www.sanjoseca.gov/home/showpublisheddocument/422/637602045327100000. Accessed October 23, 2024.

City of San José. 2021b. Water Shortage Contingency Plan. Available: https://www.sanjoseca.gov/home/showpublisheddocument/74987/637602046315870000. Accessed February 19, 2025.

City of San José. 2023. San José-Santa Clara Regional Wastewater Facility. Available: https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/water-utilities/regional-wastewater-facility. Accessed October 23, 2024.

City of San José. 2024a. Envision San José 2040 General Plan. Adopted November 1, 2011; amended January 31, 2024. Available: https://www.sanjoseca.gov/home/showpublisheddocument/22359/637928744399330000. Accessed October 23, 2024.

City of San José. 2024b. Water: Residential Use. Available: https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/climate-smart-data-dashboard/water-residential-water-use. Accessed October 24, 2024.

City of San José. 2024c. City of San José Municipal Code Section 9.10.2480. Municipal Code 2024 Supplement 2, Update 2, including local legislation current through August 27, 2024. Available: https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT9HESA_CH9.10SOWAMA_PT15CODEDIDEPR_9.10.2400ES. Accessed October 24, 2024.

City of Santa Clara. 2010. *City of Santa Clara 2010–2035 General Plan.* Available: https://www.santaclaraca.gov/home/showpublisheddocument/56139/636619791319700000. Accessed October 23, 2024.

City of Santa Clara. 2021. *2020 Urban Water Management Plan*. Adopted June 22, 2021. Available: https://www.santaclaraca.gov/home/showpublisheddocument/74073/637606452907100000. Accessed October 23, 2024.

City of Santa Clara. 2024a. Water Utility. Available at: https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities/water-utility.Retrieved October 23, 2024.

City of Santa Clara. 2024b. Stormwater Pollution Prevention. Available: https://www.santaclaraca.gov/our-city/departments-g-z/public-works/environmental-programs/stormwater-pollution-prevention. Last updated February 9, 2024. Accessed October 24, 2024.

City of Santa Clara. 2024c. Construction & Demolition Debris Recycling Program. Available: https://www.santaclaraca.gov/our-city/departments-g-z/public-works/environmental-programs/commercial-and-industrial-garbage-recycling/construction-demolition-debris-recycling-program. Last updated August 27, 2024. Accessed October 29, 2024.

Clean Harbors (Clean Harbors Environmental Services). 2024. Transportation & Disposal: San José, California Facility Facts. Available: https://s3-us-west-2.amazonaws.com/wastebits-marketing-assets-1/facility-locator/downloads/clean-harbors-of-san-jose-llc/FINAL-San-Jose-Facility-FS-010507.pdf. Accessed December 27, 2024.

CPUC (California Public Utilities Commission). 2019. *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments.* Version 1.0. Energy Division, Infrastructure Permitting and CEQA Unit. November 2019. Available: https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/c/6442463239-ceqa-pre-filing-guidelines-pea-checklist-nov-2019.pdf. Accessed October 29, 2024.

CPUC (California Public Utilities Commission). 2023. General Order 131-D, *Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California*. Section XIV.B. Adopted June 8, 1994; last modified December 14, 2023, effective December 14, 2023, Decision 23-12-035. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed October 29, 2024.

FCC (Federal Communications Commission). 2024. Mobile LTE Coverage Map. Available: https://broadbandmap.fcc.gov/location-summary/mobile. Data as of December 31, 2013 (latest); last updated October 15, 2024. Accessed October 24, 2024.

LSPGC (LS Power Grid California, LLC). 2024. *Proponent's Environmental Assessment for the Power the South Bay Project.* Section 5.19, "Utilities and Service Systems." May 2024.

PG&E (Pacific Gas and Electric Company). 2014a. Electric Service Area Maps. Available: https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_MAPS_Service%20Area%20Map.pdf. Last updated November 17, 2014. Accessed December 27, 2024.

PG&E (Pacific Gas and Electric Company). 2014b. Gas Service Area Maps. Available: https://www.pge.com/tariffs/assets/pdf/tariffbook/GAS_MAPS_Service_Area_Map.pdf. Last updated November 17, 2014. Accessed December 27, 2024.

San Francisco Bay RWQCB (San Francisco Bay Regional Water Quality Control Board). 2022. Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, NPDES Permit No. CAS612008. May 11, 2022. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf. Accessed October 24, 2024.

SCVURPPP (Santa Clara Valley Urban Runoff Pollution Prevention Program). 2024. About SCVURPPP. Available: https://scvurppp.org/about-scvurppp/. Accessed October 23, 2024.

SJW (San Jose Water Company). 2021a. *San Jose Water Company 2020 Urban Water Management Plan.* Final Report. June 2021. Available: https://www.sjwater.com/sites/default/files/2021- 06/2020%20UWMP%20FINAL%20with%20Appendices.pdf. Accessed October 24, 2024.

SJW (San Jose Water Company). 2021b. Schedule No. 14.1: Water Shortage Contingency Plan with Staged Mandatory Reductions and Drought Surcharges. Available: https://www.sjwater.com/sites/default/files/2021-11/Schedule%2014.1%20Nov%2017%202021.pdf. Last revised August 5, 2021. Accessed February 19, 2025.

State of California. 2007. Senate Bill No. 1016, "Diversion: Compliance: Per Capita Disposal Rate." Chapter 343. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB1016. Accessed October 29, 2024.

Union Sanitary District. 2024. Mission, Organization, Facts, and History. Available: https://unionsanitary.ca.gov/about-us/about-us/mission-organization-facts-and-history/. Accessed October 23, 2024.

USDOT (U.S. Department of Transportation). 2024. National Pipeline Mapping System Public Viewer. Available: https://pvnpms.phmsa.dot.gov/PublicViewer/#. Accessed December 27, 2024.

Valley Water (Santa Clara Valley Water District). 2021a. *Santa Clara Valley Water District 2020 Urban Water Management Plan.* June 2021. Available: https://fta.valleywater.org/dl/pggls1SeCr. Accessed October 24, 2024.

Valley Water (Santa Clara Valley Water District). 2021b. *Final Water Shortage Contingency Plan*. June 2021. Available: https://www.yourscvwater.com/sites/default/files/SCVWA/2020-SCV-Water_Water-Shortage-Contingency-Plan_Final.pdf. Accessed February 19, 2025.

3.20 Wildfire

This section evaluates the potential for construction and 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 the evaluation of potential impacts, the study area is defined as the footprint of all Project components, including all areas of temporary or permanent ground disturbance and the surrounding communities within which the Project would be constructed and operated, as described in this section.

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 B**, *Scoping Report*, includes all comments received during the scoping period. The CPUC did not receive scoping comments pertaining to wildfire.

3.20.1 Environmental Setting

The Project lies within the jurisdictional boundaries of the cities of Fremont, Milpitas, San José, and Santa Clara, which are situated within Alameda and Santa Clara counties. As discussed in Chapter 2, *Project Description*, the Project would include the construction and operation of a new 230-kilovolt (kV) alternating current (AC) transmission line connecting the existing PG&E Newark 230 kV Substation and SVP Northern Receiving Station (NRS) 230 kV Substation.

The transmission line would exit the PG&E Newark 230 kV Substation overhead for a short segment and would transition to an underground position located within Weber Road, where it would continue underground through Boyce Road, Cushing Parkway, Fremont Boulevard, and McCarthy Boulevard. The transmission line would then leave McCarthy Boulevard, then transition overhead towards Los Esteros Road, spanning across existing wastewater drying ponds managed by the City of San José's Recycled Water Facility. The transmission line would then transition back underground near Los Esteros Road and would be underground for the remainder of the alignment until it reaches the SVP NRS 230 kV Substation. This underground segment would continue within Disk Drive and Nortech Parkway until leaving the public road right-of-way onto private and public property. Approximately 5.9 miles of the transmission line alignment would be in the city of Fremont, 0.2 mile in the city of Milpitas, 4.7 miles in the city of San José, and 1.2 miles in the city of Santa Clara, totaling 12 miles.

The Project, in conjunction with the existing PG&E Newark 230 kV Substation and the SVP NRS 230 kV Substation, would support the existing regional transmission system that provides electricity to the South Bay and East Bay sub-areas within the Greater San Francisco Bay Area. Therefore, the system planning area served by the Project is identified as the "Greater Bay Area."

3.20.1.1 Regional Setting

Fire Environment

Fire behavior is primarily dependent upon topography (e.g., slope, elevation, and aspect), fuels (e.g., topography, vegetation), and weather (e.g., wind, temperature, and humidity). The combination of these three factors, which are described in more detail below, can help or hinder

the spread of a wildfire. The Project site is not located in a high-fire hazard severity zone as determined by the California Department of Forestry and Fire Protection (CAL FIRE), nor in an area of elevated or extreme fire-threat as determined by the CPUC (Cal FIRE 2023; CPUC 2021).

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).

The topography throughout the Greater Bay Area is varied and has been shaped by geological processes over millions of years. 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. The Project area largely comprises and is surrounded by previously developed areas that are designated for industrial, light industrial, public, and commercial uses. Portions of the Project site are located adjacent to recreational resources, open spaces, and residential areas, as discussed in more detail in Section 3.11, *Land Use and Planning*, and Section 3.16, *Recreation*. Additional discussion related to landslides and slope stability is provided in Section 3.7, *Geology and Soils*.

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 human-made structures such as homes, buildings, and other associated combustible materials.

As discussed above, the Project area largely comprises developed or previously developed land. Fuel sources present on-site may be sparse and comprised of invasive plant species and brush.

The Project site is partially located within the "influence" zone of the wildland urban interface (WUI) in Alameda and Santa Clara counties. The WUI is an area where human-made structures meet undeveloped wildlands. The Alameda and Contra Costa County Regional Wildfire Priority Plans classify different types of areas within the WUI, including intermixed areas, interface areas, and influence zones. *Intermixed areas* are where structures intermingle with wildland vegetation, making the boundary between wildland and urban areas hard to recognize. *Interface areas* are where a more defined boundary between structures and wildland vegetation is visible. *Influence zones*, although not directly classified as WUI, are typically uninhabited wildlands; however, due to their proximity to the WUI, they can still be considered "at risk" to wildfire damage should a fire occur within the WUI (Alameda and Contra Costa County Regional Priority Plan 2021).

As shown in **Figure 3.20-1**, *Wildland Urban Interface*, portions of the proposed Newark to NRS 230 kV AC transmission line are partially within or adjacent to the WUI influence zone; however, these portions of the transmission line would be entirely underground within Fremont Boulevard,

Cushing Parkway, and Boyce Road in the WUI influence zone. The primary overhead segment of the transmission line would span across existing wastewater drying ponds (along the City of San José's Recycled Water Facility lands) and would be approximately 1.9 miles long with 11 new overhead transmission line structures. As indicated in Figure 3.20-1, portions of the overhead lines in the second overhead segment, located at the existing PG&E Newark 230 kV Substation, would be within the influence zone. The second overhead segment would be approximately 0.1 mile long with 3 new overhead transmission line structures. The primary overhead segment would not be in a WUI zone.

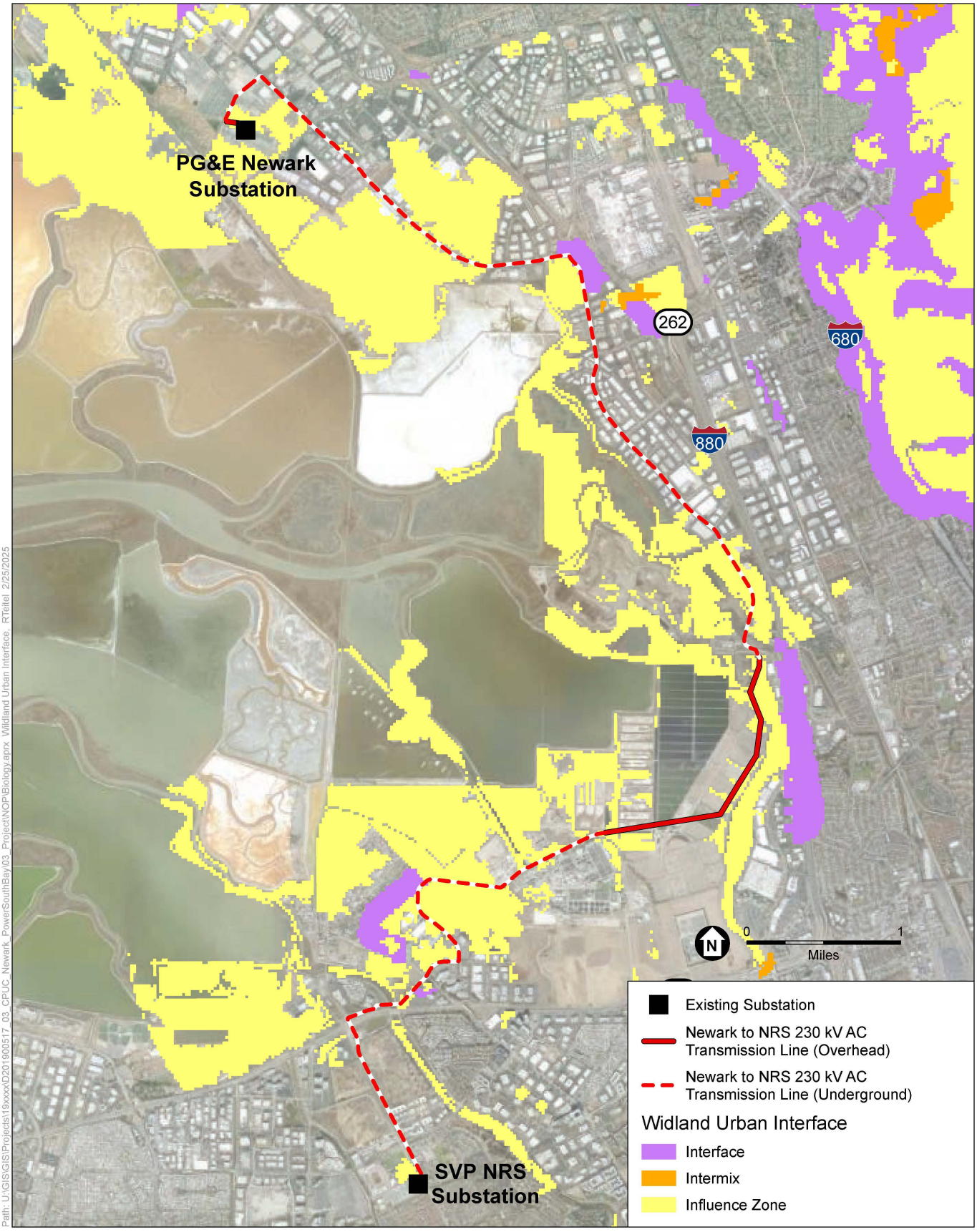
The Project site is also located in the influence zone and partially within the interface zone in Santa Clara County WUI, as mapped in the County's Community Wildfire Protection Plan (Santa Clara County 2023a). Portions of the proposed overhead transmission line and its underground alignment in Los Esteros Road would be partially located within the influence zone. An influence zone area is located west of Lafayette Street and east of Levi's Stadium that overlaps with the existing SVP NRS 230 kV Substation.

Portions of the Project site are also located in a Federal Responsibility Area, as indicated in **Figure 3.20-2**, *Federal Responsibility Areas*. Land managed by the Bureau of Land Management is located adjacent to the proposed Newark to NRS 230 kV AC transmission line. Federal Responsibility Area land does not necessarily indicate increased fire risk. Federal Responsibility Area land is discussed below.

Weather/Climate

The climate in the Bay Area is a typical Mediterranean type modified slightly by marine breezes from the Pacific Ocean. The principal characteristics of this type of climate are warm, very dry summers and cool, relatively rainy winters (City of Fremont 2011; City of San Jose 2024). The City of San José receives a relatively modest 14–15 inches of rainfall per year, subject to recurring and sometimes long-lasting droughts (City of San Jose 2024). Annual average temperatures across the Bay Area are between the range of 67.5–71.9°Fahrenheit. Precipitation across California, including in the Bay Area, is highly variable. From 1950–2005, the Bay Area experienced mean annual precipitation ranging from 11.7–61.1 inches per year. The occurrence of drought is not uncommon in California, largely because of persistent atmospheric ridges (high pressure systems over the Pacific Ocean) and extreme and intermittent precipitation (Ackerly et. al. 2018).

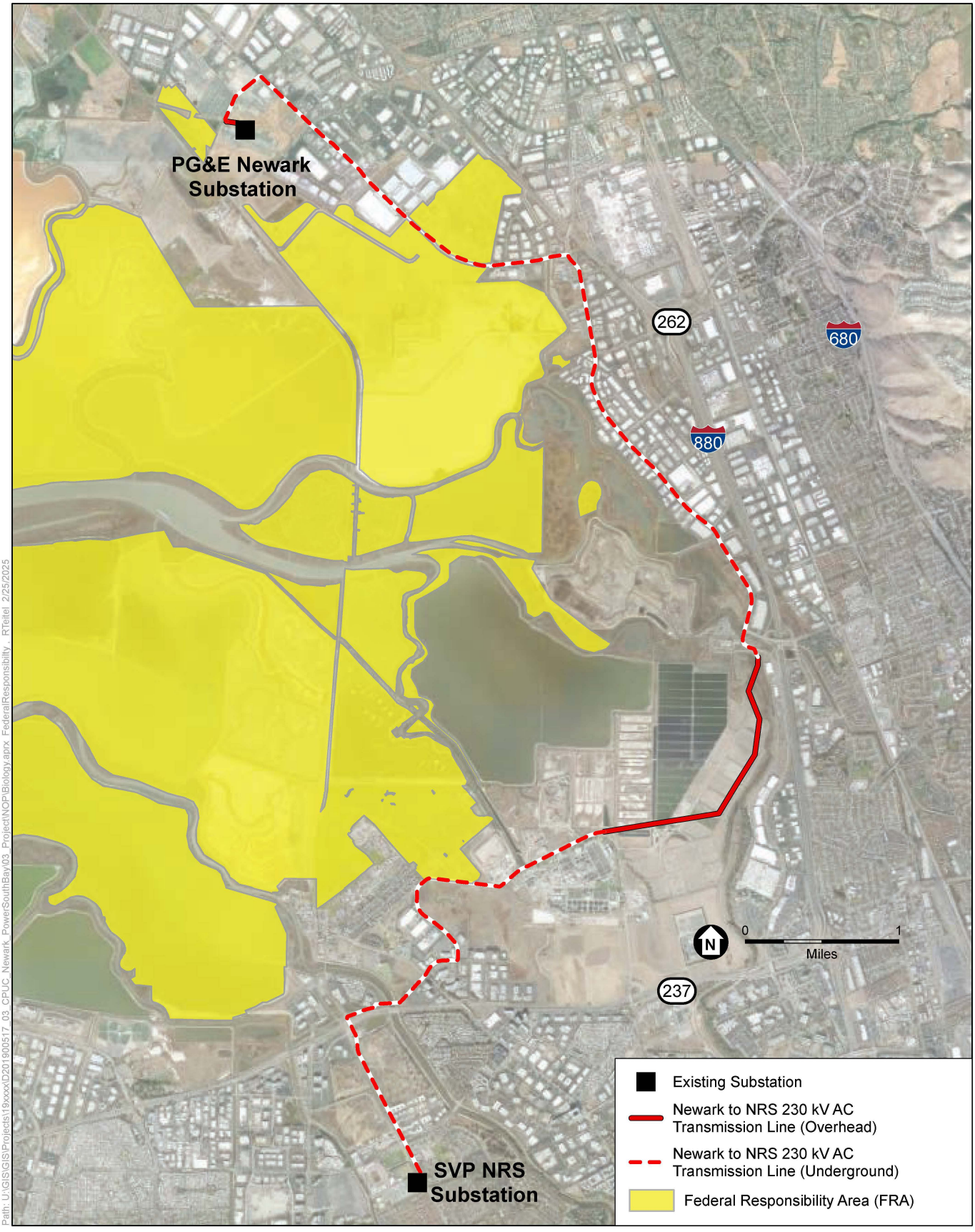
Data from the weather station (SJC Station) closest to the Project, located at the Norman Y. Mineta San José International Airport, approximately 2.25 miles south from the Project site, were also retrieved and analyzed for annual and monthly wind direction, velocity, speed, and percentage of calm weather. Wind data at the SJC Station reflect observations over the past 55 years, from December 1969 to April 2024. The average wind speed at the SJC Station was 6.8 miles per hour, with a northwest–southeast bearing. Calm weather was recorded at the SJC Station, averaging 23 percent annually. Given the proximity of this weather station to the Project site and the lack of intervening topography to deflect the winds, it is reasonable to conclude that wind-driven fires would move in the same direction (IEM 2024).



SOURCE: ESA, 2024; CalFire, 2024

Power the South Bay Project

Figure 3.20-1
Wildland Urban Interface



SOURCE: ESA, 2024; CalFire, 2024

Power the South Bay Project

Figure 3.20-2
Federal Responsibility Areas

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 (Hamers 2018; Milman 2018). These pollutants are described in more detail in Section 3.3, *Air Quality*.

3.20.1.2 Fire Protection Services

Because the Project site and alignments are in a federal and local responsibility area, primary fire protection services in the Project site are provided by the Fremont Fire Department, Milpitas Fire Department, San José Fire Department, and Santa Clara Fire Department. The U.S. Fish and Wildlife Service (USFWS) would have jurisdiction on federal lands depicted in Figure 3.20-2, located along the transmission line alignment. Section 3.15, *Public Services*, outlines additional details regarding fire protection services.

3.20.1.3 U.S. Fish and Wildlife Service

Across all USFWS lands, 370,000 acres burn in wildfires annually, while 342,845 acres are treated with prescribed fire annually. The USFWS employs 498 management professionals who prepare for wildfires and respond with advanced firefighting techniques on USFWS lands and in partnership with other wildland fire agencies. To protect Service lands from wildfires and improve habitats, the USFWS implements comprehensive vegetation management strategies, such as mechanically clearing vegetation and applying prescribed fire. The USFWS maintains that understanding intricate dynamics of fire ecology, along with conducting effective public education initiatives, is essential for maintaining a balanced and sustainable environment that supports both people and wildlife (USFWS 2025).

3.20.2 Regulatory Setting

3.20.2.1 Federal

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission requires utilities to adopt and maintain minimum clearance standards between vegetation and transmission voltage power lines. These clearances vary depending on voltage. In most cases, the minimum clearances required in state regulations are greater than the federal requirement. In California for example, the CPUC has adopted General Order 95 rather than the North American Electric Reliability Corporation (NERC) standards as the electric safety standard for the State.

North American Electric Reliability Corporation Standards

NERC is a not-for-profit international regulatory authority whose mission is to assure 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, the Electric Reliability Organization for North America, operates under the oversight of the Federal Energy Regulatory Commission. In response to the massive power outage on the Eastern Seaboard in 2003 caused by a software malfunction, NERC developed a transmission vegetation management program. This program applies to all transmission lines operating at 200 kV and above and to lower-voltage lines designated by the Regional Reliability Organization as critical to the region's electric system reliability.

Uniform Building Code and Uniform Fire Code

The Uniform Building Code and the Uniform Fire Code establish federal construction and design specifications for fire protection. To minimize potential fire risk and damage to structures, the Uniform Building Code outlines requirements for building construction, materials, and other elements or construction practices. The Uniform Fire Code provides design measures for the installation of fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards and safety measures, hazardous material storage and use, and other general and specialized fire safety and prevention requirements.

3.20.2.2 State

Emergency Services Act

Under the Emergency Services Act (Government Code Section 8550, et seq.), the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. 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 office coordinates the responses of other agencies, including the California Environmental Protection Agency, the California Highway Patrol, regional water quality control boards, air quality management districts, and county disaster response offices.

2024 Strategic Plan for California

Developed by the California Board of Forestry and Fire Protection, the CAL FIRE Strategic Plan outlines goals and objectives to implement CAL FIRE's overall policy direction and vision (CAL FIRE 2024). The 2024 Strategic Plan builds on the 2019 Strategic Plan, prioritizing diverse operational and programmatic concerns identified through internal and external engagement. Renewed goals include hiring, cross-training, removing barriers to equitable access, leveraging technology to modernize processes, strengthening physical and digital infrastructure, identifying core capabilities, and strengthening operational capacity. Through the 2024 Strategic Plan, CAL FIRE implements and enforces the policies and regulations set by the Board of Forestry and Fire Protection and fulfills the mandates of the Governor and the legislature.

California Emergency Response 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 hazardous materials 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 Highway Patrol, California Department of Fish and Wildlife, regional water quality control boards, local air districts, and local agencies. The State Emergency Plan defines the "policies, concepts, and general protocols" for the proper implementation of the California Standardized Emergency Management System. The Standardized Emergency Management System is an emergency management protocol that agencies within the State of California must follow during multi-agency response efforts whenever state agencies are involved (Cal OES 2024).

Public Resources Code Section 4291

The Public Resources Code Section 4291includes 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 restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on equipment that has an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire-suppression equipment that must be provided on-site for various types of work in fire-prone areas.

California Department of Forestry and Fire Protection: Fire Hazard Severity Zones

Public Resources Code Sections 4201–4204 require CAL FIRE to prepare fire hazard severity zone (FHSZ) maps for all lands within State Responsibility Areas (SRAs) and to make recommendations for such zones in Local Responsibility Areas. Each zone encompasses relatively homogeneous lands and is 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. As discussed above in Section 3.20.1, *Environmental Setting*, the Project is not located in an SRA nor a High FHSZ (CAL FIRE 2023).

California Building Code

In January 2008, California transitioned from the Uniform Building Code to the International Building Code. The International Building Code specifies construction standards for urban interface and wildland areas with an elevated threat of fire. Portions of the Project are located within a WUI area (USFS 2023).

Assembly Bill 747

Assembly Bill 747 was adopted in 2019 and requires safety elements to be reviewed and updated as necessary to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. The law authorizes a city or county that has adopted a local hazard mitigation

plan, emergency operations plan, or other document with commensurate goals and objectives to use that information in the safety element. This can be done by summarizing and incorporating the other plan or document by reference in the safety element to comply with the requirement.

Senate Bill 1028

Senate Bill 1028 requires each electrical corporation to construct, maintain, and operate its electrical lines and equipment to minimize the risk of catastrophic wildfires. Violation of these provisions by an electrical corporation are considered crimes under state law. The bill also requires each electrical corporation to annually prepare and submit a wildfire mitigation plan (WMP) to the CPUC for review. This plan must include a statement of objectives, a description of preventive strategies and programs aimed at minimizing risk associated with electric facilities, and a description of the metrics used to evaluate the overall performance of the WMP and assumptions underlying these metrics.

3.20.2.3 California Public Utilities Commission General Orders

General Order 95

General Order 95 governs the design, construction, and maintenance of overhead electrical lines. General Order 95 addresses management practices, inspection cycles, corrective maintenance timeframes, and other fire-reduction measures in fire threat zones. The CPUC has promulgated various rules to implement the fire safety requirements of General Order 95, including the following:

- **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 128

General Order 128 establishes requirements for underground electric supply and communication systems. These requirements detail design and maintenance standards and safety procedures in the event of major accidents and failures, including the minimization of such accidents or failures.

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 1st 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 applies to all electric utilities subject to CPUC jurisdiction. The purpose of General Order 166 is to help ensure that electric utilities are prepared for emergencies and disasters to minimize damage or inconvenience to the public. This standard requires that electric utilities prepare and update an emergency response plan annually, conduct emergency training, develop communication strategies to inform the public of major outages, and coordinate emergency plans with state and local public safety agencies. Fire prevention plans created by utility companies are required to identify specific parts of their service territory where fire-exacerbating conditions may occur simultaneously. Standard 11 requires utility companies to report annually to the CPUC on their compliance with General Order 166 (CPUC 2021).

On May 4, 2000, the CPUC issued decision D.98-07-097 to adopt revisions to General Order 166, addressing electric service reliability and safety, with a focus on minimizing potential hazards from damage to electric distribution facilities. The CPUC also provides an annual guide to utility companies for creating their WMPs based on guidance from D.19-05-036. In compliance with Standard 1.E of General Order 166, LSPGC adopted the LSPGC 2025 WMP Update, discussed further in Section 3.20.3, *Applicant-Proposed Measures and Field Protocols*. Additionally, PG&E prepared the Revised 2023–2025 WMP in December 2024.

LS Power Grid California 2023–2025 Wildfire Mitigation Plan

The primary goal of the LSPGC 2025 WMP Update is as follows (LSPGC 2024):

> *Each electrical corporation shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by those electrical lines and equipment.*

The LSPGC 2025 WMP Update builds on the successes of prior implementation efforts and incorporates lessons learned during recent years of extreme wildfire activity in various parts of California. The LSPGC 2025 WWMP Update includes the following strategies and programs:

- A new program that includes dedicated weather stations at all LSPGC substations.
- Improved grid design and operation and maintenance, including grid design and system hardening, asset inspections, equipment maintenance and repair, and grid operations and procedures.
- Continuation of comprehensive vegetation management and inspections.
- Emergency preparedness.
- Increased situational awareness and response.

- Augmented activities for community engagement, particularly for under-represented groups and LSPGC access and functional needs customers.

Pacific Gas and Electric Company 2023–2025 Wildfire Mitigation Plan

The primary goals for the PG&E 2023–2025 WMP include the following:

- Construct, maintain, and operate electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by them.
- Thoroughly assess wildfire risk, develop a comprehensive strategy to reduce ignitions, and to help ensure the reliability of the electric systems.
- Implement mitigations designed to minimize the likelihood of catastrophic wildfires.
- Implement programs to limit customer disruption from our wildfire mitigation efforts.

PG&E's objectives over the 2023–2025 WMP cycle are to use risk-informed decision-making to minimize ignition risk and outage impacts. Their mitigation and minimization efforts are centered around comprehensive monitoring and data collection, operational mitigations, and system resilience. These strategies work together to reduce wildfire risk and strengthen the resiliency of PG&E's electric distribution and transmission systems (PG&E 2024).

3.20.2.4 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. As such, the following local policies and ordinances pertaining to wildfire that would otherwise be relevant to the Project and alternatives are described below for informational purposes only.

City of Fremont General Plan

The following goal and policies from the City of Fremont General Plan pertaining to wildfire are applicable to the Project (City of Fremont 2011).

Goal 10-4: Fire Hazards. Minimum risk to life and property resulting from fire hazards.

***Policy 10-4.2: Development Standards*.** Maintain development standards that limit potential health and safety risks, and the risks of structure damage and severe economic loss due to fire hazards.

***Policy 10-4.3: Access and Clearance*.** Require adequate access and clearance for fire equipment, fire suppression personnel, and evacuation for new development.

City of Milpitas General Plan

The following goal and policies from the City of Milpitas General Plan pertaining to wildfire are applicable to the Project (City of Milpitas 2021).

Goal SA-4: Maintain a safe community by providing efficient and high-quality police, fire, and emergency services.

***Policy SA 3-6*:** Maintain effective mutual aid agreements for fire, medical response, and other functions as appropriate.

***Policy SA 4-9*:** Ensure that fire and emergency medical services meet existing and future demand by maintaining a response time of four minutes or less for all urban service areas.

City of San José General Plan

The following goals and policies from the City of San José General Plan pertaining to wildfire are applicable to the Project (City of San José 2024).

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 [fire hazard severity zone] 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 [California Building Code].

***Policy EC-8.4*:** Require use of defensible space vegetation management best practices to protect structures at and near the urban/wildland interface.

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-5.5*:** 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 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.

City of Santa Clara General Plan

As stated in the City of Santa Clara General Plan, the City does not have the terrain or vegetation conditions for large or devastating wildfires (City of Santa Clara 2010). The following policy from the City of Santa Clara General Plan pertaining to wildfire are applicable to the Project:

> ***Policy 5.9.3-P2*:** Provide police and fire services that respond to community goals for a safe and secure environment for people and property.

2024 Tri-City Multi-jurisdictional Local Hazard Mitigation Plan

The cities of Fremont, Newark, and Union City, along with the Alameda County Water District and the Union Sanitary District, comprise the five participating jurisdictions in the 2024 Tri-City Local Hazard Mitigation Plan Update. The purpose of the 2024 Tri-City Local Hazard Mitigation Plan Update and hazard mitigation planning is to reduce or eliminate long-term risk to people and property; critical facilities and infrastructure; natural, historic, and cultural resources; and other community assets from future hazard events and natural disasters (City of Fremont et. al. 2024). No designated evacuation routes are outlined in the Local Hazard Mitigation Plan.

Santa Clara County Multijurisdictional Hazard Mitigation Plan

Hazard mitigation involves implementing long-term and short-term policies, programs, projects, and other activities to reduce the risk of death, injury, and property damage that can result from disasters. Santa Clara County, in collaboration with local governments and special districts, developed a multijurisdictional hazard mitigation plan to reduce risks from natural disasters in the Santa Clara County Operational Area, which includes both unincorporated and incorporated jurisdictions within the county's geographical boundaries. The Santa Clara County Multijurisdictional Hazard Mitigation Plan identifies goals for reducing long-term vulnerabilities to identified hazards. The plan included input from the cities of San José, Santa Clara, and Milpitas. No designated evacuations routes are outlined in the Multijurisdictional Hazard Mitigation Plan (Santa Clara County 2023b).

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 LSPCG, PG&E, and SVP 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.

- LSPCG would be responsible for the majority of the Project from pole location NN-3 on PG&E property immediately outside the Newark Substation to a new gantry (dead-end) structure within the SVP NRS 230 kV Substation (see Figure 2-3a), as described in Section 2.6.1, *Newark to NRS 203 kV Alternating Current Transmission Line*.
- As noted in Section 2.6.2.1, *PG&E Newark 230 kV Substation Modifications*, PG&E would be responsible for portion of the Project from pole location NN-3 on its property into the open 230 kV line position within the PG&E Newark 230 kV Substation which would accommodate the Project (see Figure 2-3b).

- As noted in Section 2.6.2.2, *SVP NRS 230 kV Substation Modifications*, LSPGC would bring the transmission line into the SVP NRS 230 kV Substation underground to a cable terminator structure owned by LSPGC that would connect to the new SVP-owned dead-end structure within the substation (Figure 2-3c). SVP would be responsible only for the installation of: the dead-end structure within the substation, CAISO metering, the transmission line to the dead-end structure, and the jumpers between the line terminations and through the CAISO meters.

3.20.3.1 Applicant-Proposed Measures

LSPGC has committed to implementing the following APMs to reduce potential impacts on wildfire from the Project. The analysis assumes that the following APMs would be implemented by LSPGC as part of their portion of work for the Project.

- **APM TRA-1: Traffic Control Plan.** LSPGC shall prepare a TCP [traffic control plan] 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. A copy of the TCP shall be provided to CPUC [California Public Utilities Commission] for recordkeeping.

3.20.3.2 PG&E Best Management Practices and Field Protocols

PG&E would be responsible for implementing field protocols (FPs) related to wildfire. The analysis assumes that the following FPs would be implemented by PG&E as part of PG&E's portion of work for the Project (i.e., the interconnection of LSPGC's new transmission line to the existing PG&E Newark 230 kV Substation).

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.

3.20.3.3 SVP Construction Measures

SVP has proposed no construction measures pertaining to wildfire within SVP's portion of the Project.

3.20.4 Significance Criteria

According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, 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. No decommissioning is planned as part of the Project.[1] This analysis considers whether the Project's wildfire risk can be effectively lessened through implementation of standard regulatory requirements (e.g., compliance with CPUC regulations and local fire codes). 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.

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 site is not within or near an SRA or upon or near lands classified as very high FHSZs. Operation and maintenance of the Project would not involve any road or lane closures nor substantially impair the implementation of an emergency response plan or emergency evacuation plan. Therefore, once constructed, there would be no impact. (*No Impact*)

[1] If the Applicant were to decide to decommission the facility, the Applicant would prepare a removal and restoration plan before removing or abandoning the facilities. This would require additional analysis as it pertains to wildfire and is not included in this analysis.

Impact 3.20-1: Project construction would not substantially impair an adopted emergency response plan or emergency evacuation plan. (*Less than Significant with Mitigation*)

Although the transmission lines and substation modifications associated with the Project are not within or near an SRA, or on lands classified as a very high FHSZ, considerations regarding emergency response and evacuation still warrant evaluation. Project construction would not impair applicable jurisdictions' efforts to prevent and address wildfire hazards, as the Project would be designed and conducted in accordance with local policies and regulations as provided above in Section 3.20.2. For example, the Project would align with applicable policies that require vegetation trimming to reduce wildfire fuels and would not introduce new flammable materials or vegetation to the Project site. Further, work conducted on portions of the Project located on federal land managed by the USFWS (i.e., the Don Edwards San Francisco Bay National Wildlife Refuge) would comply with applicable USFWS standards. Furthermore, the Project would be constructed and operated in accordance with the existing PG&E and LSPGC WMPs. In the event of a wildfire-related emergency, evacuation routes would be determined based on the source and location of the fire. The Project would establish electrical infrastructure without interfering with city- or county-wide incident management or operation plans. No emergency evacuation routes are identified within the plans discussed above that would be affected by the Project.

Although the Project would not interfere with any established evacuation routes or emergency operations plans, the slower-moving traffic such as oversized vehicles and temporary lane closures during construction could delay emergency response or evacuation. These delays could potentially conflict with emergency operations (see Impact 3.17-3 in Section 3.17, *Transportation*, for additional discussion regarding the Project's effects related to emergency access). Additionally, the Project could substantially impair an adopted emergency response plan or emergency evacuation plan if an established evacuation route, such as a freeway (e.g., Interstate 880 or State Route 237), was needed during an emergency.

As discussed in Impact 3.17-3, LSPGC would implement **Mitigation Measure 3.17-2a**: **Implement Coordinated Traffic Control Plan** and **APM TRA-1: Traffic Control Plan**, which would reduce traffic-related impacts, so that emergency access would be maintained during Project construction. The TCP(s) that would be developed as part of Mitigation Measure 3.17-2a and APM TRA-1 would include measures to guide traffic (such as signs and workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts. Further, all construction activities would be coordinated with local law enforcement and fire protection agencies, as required. Emergency service providers would be notified, as required by the local permit, of the timing, location, and duration of construction activities. APM TRA-1 also requires that LSPGC attain proper encroachment permits through coordination and communication with the applicable state and local agencies, minimizing potential conflicts.

With the implementation of Mitigation Measure 3.17-2a and APM TRA-1, the Project would not substantially impair an adopted emergency response plan or an emergency evacuation plan. Therefore, impacts would be mitigated to a **less-than-significant** level.

Mitigation: Implement Mitigation Measure 3.17-2a.

Mitigation Measure 3.17-2a: Implement Coordinated Traffic Control Plan

LSPGC shall coordinate with Project proponents, contractors, and local agencies, as applicable, for other construction projects in the Project's vicinity that may temporally overlap with Project construction, including, but not limited to, 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 the Project's traffic control plan with other traffic control plans prepared for nearby projects. The other projects' traffic control plans shall be cited in the Project's traffic control plan, as applicable.
- 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:
  - Full and partial roadway closures.
  - Circulation and detour plans to include 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 at least 30 days before the start of construction.

Significance after Mitigation: Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would ensure that impacts that could substantially impair an adopted emergency response plan or emergency evacuation plan would be less than significant.

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.

Although the Project alignment is not proposed within or near an SRA or on lands classified as a very high FHSZ, considerations regarding exacerbation of wildfire risks still warrant evaluation. Since the Project structures would not be intended for occupation, they would not expose any occupants to increased wildfire risks. However, segments of the Project pass through or near existing developed residential and employment communities within the cities of Fremont, Milpitas, San José, and Santa Clara. Further, the Project would be near areas classified as WUI

lands, which could indicate some elevated fire risk. Therefore, the following analysis focuses on the potential for the Project to increase the exposure of these communities to wildfire risks.

Impact 3.20-2: 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*)

The Project is on flat terrain and slope is not a factor that could exacerbate wildfire risk in the Project area. The Project area is also characterized by mild seasonal weather and consistent, mild wind patterns. Therefore, the Project would not be expected to exacerbate any wildfire risks because of slope, prevailing winds, or other contributing factors.

As provided above in Section 3.20.2, the Project would be designed and constructed according to local jurisdictions' design and safety standards, as well as applicable standards contained in the California Building Code and California Fire Code. Further, PG&E would implement PG&E FPs related to wildfire for its interconnection portions of the Project. For example, PG&E's contractors would be subject to **PG&E FP 8** and **PG&E FP 9** during improvements at the PG&E Newark 230 kV Substation, which detail protocol for reducing fire risk on-site during red flag conditions and prohibit open flames on-site. Because these specifications proactively address fire safety, it is not likely that the Project would exacerbate wildfire risk during construction.

Once constructed, the new transmission line and associated facilities would be operated in accordance with an applicable WMP, and in accordance with LSPGC's and the CPUC's standard safety procedures. For example, vegetation clearances within the road prism of the transmission line right-of-way would be conducted in compliance with CPUC General Orders 95, 128, 165, and 166 and other applicable regulatory requirements.

For the reasons discussed previously, the Project would not exacerbate wildfire risks, expose receptors to pollution, or contribute to the uncontrolled spread of wildfire, and impacts 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 3.20-3: The Project would not 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*)

Although the Project site and alignments are not proposed within or near an SRA or on lands classified as a very high FHSZ, considerations regarding Project facilities that could exacerbate

wildfire risks still warrant evaluation. Project components could have the potential to introduce ignition risks or exacerbate existing fire risks within the Project vicinity.

Construction

As discussed in Section 2.8.13, *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 (see Section 3.20.3). Additionally, LSPGC and PG&E would update their existing 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**.

Operations and Maintenance

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.

Impact 3.20-4: 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. (*Less than Significant*)

The transmission lines and substations are not within or near an SRA or lands classified as very high FHSZ. The Project is generally proposed on relatively flat lands that are either partially developed or industrial. The Project would not include habitable structures. The proposed drainage changes and their potential impacts are discussed below.

Construction

Construction of the Project would require temporary drainage and detention basins at construction sites. Although the Project would temporarily alter the drainage pattern on-site, these alterations

would be minimal and temporary. Temporary work areas and substation modification areas, including drainage and detention basins and access roads, would be stabilized during construction with BMPs outlined in the Project's Stormwater Pollution Prevention Plan (SWPPP). These BMPs would remain in place and would be maintained until new vegetation is established or the site is stabilized. Therefore, Project construction would not expose people or structures to significant risks as a result of runoff, post fire slope instability, or drainage changes, and this impact would be **less than significant**.

Operations and Maintenance

This linear transmission line Project would add limited impervious surfaces, such as concrete structure foundations and splice vaults, on terrain with minimal slope variation. Once the Project is constructed, LSPGC would conduct a final inspection to ensure that cleanup activities are successfully completed. The Project would include restoration of construction sites to pre-construction conditions and maintenance to monitor on-site drainage. Areas that are disturbed by grading, auguring, or equipment movement would be restored to their original contours and drainage patterns. LSPGC would regularly inspect, maintain, and repair the Project and access roads after 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.

The Project operations would not expose people or structures to significant risks such as downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Finally, as noted in Section 3.10, *Hydrology*, the Project would not substantially alter the existing drainage patterns or add substantial impervious surface area that could alter flooding conditions. For the reasons discussed previously, this impact would be **less than significant**.

Mitigation: None required.

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 main cumulative projects considered here, as presented in Table 3.0-1, mainly 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 or near 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 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 is not proposed within or near an SRA, or upon or near lands classified as very high FHSZ and operation and maintenance of the Project would not involve any road or lane closures nor substantially impair the implementation of an emergency response plan or emergency evacuation. Therefore, because there would be no operational impacts associated with the Project, it would not contribute to a cumulative impact. (*No Impact*)

Impact C.3.20-1: Project construction, in combination with the cumulative projects, would not substantially impair an adopted emergency response plan or emergency evacuation plan. (*Less than Significant with Mitigation*)

As discussed in Impact 3.20-1, the Project has the potential to impair an adopted emergency response plan or interfere with evacuation through a combination of temporary lane closures and slow-moving construction vehicles. In addition, with consideration to the projects listed in Table 3.0-1, cumulative projects that have overlapping construction schedules and would also require temporary lane closures and/or slow-moving vehicles with the Project could potentially contribute to similar traffic delays. Thus, in the event of a regional emergency such as a wildfire, the Project, in combination with cumulative projects, may be limited to the use of the same evacuation route, which may experience high levels of congestion as result of these construction elements, amongst other traffic inducing factors. The combination of slower moving construction vehicles and temporary lane closures could result in inadequate or delayed emergency access, and therefore, there could be a cumulatively considerable impact related to an adopted emergency response plan or emergency evacuation plan.

With respect to the above considerations, however, it is not anticipated that the Project, in combination with the cumulative projects, would substantially impair an emergency response plan or emergency evacuation plan. Prior to finalizing the design and associated construction activities of proposed projects, local jurisdiction staff (e.g., fire and police departments) would conduct reviews to ensure that projects are consistent according to applicable response or evacuation plans. And as stated in Impact 3.20-1, LSPGC would implement Mitigation Measure 3.17-2a and APM TRA-1, which would reduce traffic-related impacts associated with the construction of the proposed facilities, so that emergency access would be maintained during Project construction. It is also anticipated that the cumulative projects, notably those on or near the San José-Santa Clara RWF, would also implement measures to reduce any potential impacts to adequate emergency access, including the Plant Master Plan EIR's Mitigation Measure C-TR, as discussed in Impact C.3.17-2 (see Section 3.17, *Transportation*).

These efforts would address the potential impacts of overlapping construction projects within the vicinity of projects in the region, including the potential to impair an adopted emergency response plan or emergency evacuation plan. Therefore, for the reasons previously discussed, the Project, in combination with the cumulative projects, would not be cumulatively considerable and have a **less-than-significant impact** on this criterion.

Mitigation: Implement Mitigation Measure 3.17-2a.

Significance after Mitigation: Implementation of APM TRA-1 and Mitigation Measure 3.17-2a would ensure that cumulative impacts related to potentially impairing an adopted emergency response plan or emergency evacuation plan would be less than significant.

3.20.6.2 Criterion b)

Impact C.3.20-2: The Project, in combination with the cumulative projects, 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*)

As discussed in Impact 3.20-2, the Project is not proposed within or near an SRA or on lands classified as a very high FHSZ, nor is the Project in or near a CPUC-designated high fire threat zone. Further, no land in the Project's vicinity is in an SRA. Once constructed, the Project would be operated in accordance with applicable standard safety practices. Furthermore, as discussed in Impact 3.20-1, PG&E would implement FP-8 and FP-9, which prohibit open flames on site and detail other protocols for reducing fire risk during red flag conditions. The Project does not include structures intended for occupation. Therefore, the Project would not contribute to any cumulative impacts related to pollution or contribute to the uncontrolled spread of wildfire.

The Project's less-than significant impact (see Impact 3.20-2), when considered along 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.3.20-3: The Project, in combination with the cumulative projects, would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. (*Less than Significant*)

As noted in Impact 3.20-3, the Project could contribute to ignition risks due to the use of equipment, particularly activities considered as "hot work". Additionally, Project maintenance activities, and generally the presence of electrical structures, could generate sparks that could result in a fire once operational. However, as noted in Impact 3.20-3, because the Project would be constructed, operated, and maintained in accordance with LSPGC and CPUC fire safety standards and measures, 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 Santa Clara Valley Project and the LSPGC & San José Power Interconnect Project, would be subject to the CPUC General Orders as provided above in Section 3.20.2.3. For these reasons, the impact attributable to the

Project would not be cumulatively considerable, and thus, the cumulative impact would be **less than significant**.

3.20.6.4 Criterion d)

Impact C.3.20-4: The Project, in combination with the cumulative projects, 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. (*Less than Significant*)

As discussed under Impact 3.20-4, the Project would have a less-than-significant impact related to exposing people or structures to significant risks as a result of runoff, post fire slope instability, or drainage changes. When combined with the potential incremental impacts of the cumulative projects, the potential Project impact would not be cumulatively considerable. Therefore, the cumulative impact for this criterion would be **less than significant**.

3.20.7 References

Ackerly, David, Andrew Jones, Mark Stacey, Bruce Riordan. 2018. *California's Fourth Climate Change Assessment. San Francisco Bay Area Region Report.* Available: https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-005_SanFranciscoBayArea_ADA.pdf. Accessed November 2, 2024.

Alameda and Contra Costa County Regional Priority Plan. 2021. Wildland Urban Interface. Available: https://alameda-and-contra-costa-county-regional-priority-plan-ccrcd.hub.arcgis.com/datasets/2db743900a5c43fcb81c31f00baac010_0/explore. Accessed December 23, 2024.

Bennett, 2017. *Appendix B. The Effects of Topography, Weather, and Fuel on Fire Behavior.* Available: https://ir.library.oregonstate.edu/downloads/m326m2061. Accessed November 6, 2024.

Cal FIRE (California Department of Forestry and Fire Protection). 2023. Fire Hazard Severity Zones. Available: https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones. Accessed November 2, 2024.

Cal FIRE (California Department of Forestry and Fire Protection). 2024. CAL FIRE Strategic Plan 2024. Available: https://www.fire.ca.gov/about/cal-fire-strategic-plan-2024. Accessed February 6, 2025.

Cal OES (California Governor's Office of Emergency Services). 2024. "2024 California State Emergency Plan." Available: https://www.caloes.ca.gov/office-of-the-director/operations/planning-preparedness-prevention/planning-preparedness/2024-state-emergency-plan/. Accessed January 5, 2025.

City of Fremont. 2011. *City of Fremont General Plan.* Chapter 7, "Conservation." Adopted December 2011. Available: https://www.fremont.gov/home/showpublisheddocument/791/637750630830170000. Accessed November 2, 2024.

City of Fremont, City of Newark, and City of Union City, the Alameda County Water District, and Union Sanitary District. 2024. *2024 Tri-City Local Hazard Mitigation Plan Update*. March 2024. Available: https://www.fremont.gov/home/showpublisheddocument/16781/638666629037470000. Accessed January 8, 2025.

City of Milpitas. 2021. *City of Milpitas General Plan 2040*. Adopted March 9, 2021. Available: https://www.milpitas.gov/DocumentCenter/View/1147/Milpitas-2040-General-Plan-PDF?bidId=. Accessed December 19, 2024.

City of San Jose. 2024. *Envision San José 2040 General Plan*. Adopted November 1, 2011; as amended on October 24, 2024. Available: https://www.sanjoseca.gov/home/showpublisheddocument/22359/637928744399330000. Accessed November 2, 2024.

City of Santa Clara. 2010. City of Santa Clara 2010–2035 General Plan. Adopted November 16, 2010. Available: https://www.santaclaraca.gov/home/showpublisheddocument/56139/636619791319700000. Accessed December 19, 2024.

CPUC (California Public Utilities Commission). 2023. General Order No. 131-D: Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California. Adopted June 8, 1994; last modified December 14, 2023. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf. Accessed November 2024.

CPUC. 2021. CPUC Fire-Threat Map. Available: https://files.cpuc.ca.gov/safety/fire-threat_map/2021/CPUC%20Fire%20Threat%20Map_v.3_08.19.2021.Letter%20Size.pdf. Accessed November 2, 2024.

Hamers, Laurel. 2018. "Wildfires Are Making Extreme Air Pollution Even Worse in the Northwest U.S." *ScienceNews,* July 16, 2018. Available: https://www.sciencenews.org/article/wildfires-are-making-extreme-air-pollution-even-worse-northwest-us. Accessed November 6, 2024.

IEM (Iowa Environmental Mesonet). 2024. Station Data and Metadata [SJC] San José Intl A. Available: https://www.mesonet.agron.iastate.edu/sites/site.php?station=SJC&network=CA_ASOS. Accessed December 16, 2024.

LSPGC (LS Power Grid California). 2024. *2025 Wildfire Mitigation Plan Updates (WMP)*. Available: https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/wildfire-mitigation-and-safety/wildfire-mitigation-plans/2025-wildfire-mitigation-plans/. Accessed January 5, 2025.

Milman, Oliver. 2018. "Wildfire Smoke: Experts Warn of 'Serious Health Effects' Across Western US." *The Guardian*, August 2, 2018. Available: https://www.theguardian.com/world/2018/aug/02/wildfire-events-air-quality-health-issues-in-western-us. Accessed November 6, 2023.

NOAA (National Oceanic and Atmospheric Administration). 2021. *The Impact of Wildfires on Climate and Air Quality*. Available: https://csl.noaa.gov/factsheets/csdWildfiresFIREX.pdf. Accessed November 6, 2024.

PG&E (Pacific Gas & Electric Company). 2024. *2023–2025 Wildfire Mitigation Plan R7*. December 5, 2024. Available: https://www.pge.com/assets/pge/docs/outages-and-safety/outage-preparedness-and-support/120524-pge-2023-2025-wmp-r7-public.pdf. Accessed January 8, 2025.

Santa Clara County. 2023a. Santa Clara County Community Wildfire Protection Plan. Available: https://sccfc.maps.arcgis.com/sharing/rest/content/items/59c5a1772e3849ad8f225e8f638431d1/data. Accessed December 17, 2024.

Santa Clara County. 2023b. Santa Clara County Multijurisdictional Hazard Mitigation Plan. Available: https://www.milpitas.gov/DocumentCenter/View/7348/Volume-1-Santa-Clara-County-. Accessed January 8, 2025.

USFWS (United States Fish and Wildlife Service). 2025. "Fire Management." Available: https://www.fws.gov/program/fire-management/about-us. Accessed January 5, 2025.

USFS (United States Forest Service). 2023. "Wildland Urban Interface: 2020." Available: https://data-usfs.hub.arcgis.com/documents/7804d89ed1094ccb9aae753228e8d89a/explore. Accessed November 2, 2024.

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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 Analysis*.

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 Power the South Bay Project (Project) (originally referred to in CAISO documents as the "Newark to NRS HVDC 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. The main reason behind the performance issues was the increased load forecast in the San José and Santa Clara area. Mostly driven by new data center 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 2024-2025 TPP, updated Functional Specifications (CAISO 2024) for the Project were identified to define the minimum project parameters from a technical standpoint. In February 2025, as a response to CAISO's approved changes to update its 2021-2022 transmission plan in November 2024, LSPGC amended its certificate of public convenience and necessity (CPCN) application to the CPUC to update its proposed Project to address CAISO's Functional Specifications (LSPGC 2025). In addition, the Functional Specifications became the basis for the Project objectives used in this Draft EIR and are key to consideration of alternatives for the Project. The Functional Specifications include new key design parameters for the Project, such as the use of alternating current (AC) instead of direct current (DC) for the Project's transmission

line. As part of the Functional Specifications development, CAISO performed a detailed system analysis to identify the best solution to meet the Functional Specifications. Therefore, because the CAISO effectively performed an alternatives analysis as part of the 2024-2025 TPP and developed the Functional Specifications for the Project, this Draft EIR does not carry forward certain types of alternatives that would not meet the Functional Specifications. 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 five Project objectives listed below. Any alternative determined not to meet at least three of the 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 115 kV system.
- Meet the technical specifications set forth by CAISO.
- Facilitate the deliverability of energy from existing and proposed renewable generation projects to the Greater Bay Area and corresponding progress toward achieving California's Renewable 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.
- 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.

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 to render it impractical to proceed with the project. See *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 air quality. Further, the Project may result in potentially significant impacts that would be reduced to less-than-significant levels associated with aesthetics, air quality, biological resources, cultural resources, hazards and hazardous materials, public services, recreation, transportation, tribal cultural resources, utilities, and wildfire (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 six potential Project alternatives:

- Technology Alternatives
  - High Voltage Direct Current (HVDC) Alternative
  - Energy Storage Alternative
  - Additional Underground Alternative
- Transmission Line Route Segment Alternatives
  - PG&E Interconnection Alternative
  - Transmission Line Alignment Alternative
  - Gold Street Technology Center Alternative

For the reasons discussed below, the CPUC carried the following three alternatives forward for more detailed consideration: the CEQA-required No Project Alternative, the Additional Underground Alternative (Alternative 1), and the Transmission Line Alignment Alternative (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 HVDC Alternative

4.5.1.1 Description

The High Voltage Direct Current (HVDC) Alternative would connect the existing Pacific Gas & Electric Company (PG&E) Newark 230-kilovolt (kV) Substation to the existing Silicon Valley Power (SVP) Northern Receiving (NRS) 230 kV Station with one DC transmission line, two AC transmission lines, and two HVDC terminal stations, the Albrae and Baylands terminals. Refer to **Figure 4-1**, *HVDC Alternative*, for an illustration of the main components of this alternative. The HVDC Alternative was initially identified by CAISO in its 2021-2022 TPP as a reliability-driven project to address significant increases in the load forecasts in the area, which initially anticipated a 10-year load forecast of approximately 2,000 MW. For the purposes of this Draft EIR, the original project identified in the 2021-2022 TPP, as described above, is referred to as the HVDC Alternative.

4.5.1.2 Rationale for Rejection

As part of its 2024-2025 planning cycle assessment, the CAISO re-evaluated the 10-year load forecast for the San José area and discovered that the load forecast increased to approximately 3,400 MW and 4,200 MW in the base and sensitivity scenarios, respectively. In light of the significant load growth in the area, CAISO determined that the HVDC Alternative would fail to meet two of the Project objectives, and, as a result, the San José area would experience a shortage of electricity, and the electrical grid could become vulnerable to significant reliability issues. The HVDC Alternative was designed to address a load forecast of approximately 2,000 MW, and as discussed above, a re-evaluation of the area's load forecast increased to approximately 3,400 MW and 4,200 MW in the base and sensitivity scenarios (i.e., a 1,400 MW to 2,200 MW shortage). Consequently, the HVDC Alternative would not provide a suitable foundation for future upgrades, namely the San José B-NRS 230 kV line[1] and the Metcalf-San José B HVDC project (also known as "Power Santa Clara Valley Project").

[1] CAISO published a draft of the 2024-2025 Transmission Plan that describes a proposed new 230 kV line called the "San José B-NRS 230 kV line," which would connect the existing PG&E San José B 230 kV Substation to the existing SVP NRS 230 kV Substation, as a critical connection to complete.

SOURCE: KP Environmental, 2024

Power the South Bay

Figure 4-1
HVDC Alternative

The CPUC rejected the HVDC Alternative from more detailed consideration because the potential alternative failed screening based on two of the four screening criteria. **Table 4-1**, *Screening: HVCD Alternative*, provides a brief explanation of the reasons underlying the CPUC's determination.

TABLE 4-1
SCREENING: HVDC ALTERNATIVE

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Fail	The HVDC Alternative would not achieve CAISO's need to address multiple near-, mid-, and long-term reliability issues in the existing San José 115 kV system; meet the technical specifications set forth by CAISO; 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; or 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 the CAISO.
Would the alternative be potentially feasible?	Pass	The HVDC Alternative would be potentially feasible.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Fail	The HVDC Alternative would not reduce the potentially significant impacts of the Project and could result in additional impacts associated with the alternative's HVDC terminals.
Would the alternative be remote or speculative?	Pass	The HVDC Alternative would not be 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 at the Albrae site and one at the Baylands site (i.e., instead of installing HVDC terminals as considered in the HVDC Alternative, the sites identified for those terminals would be used instead for BESS facilities). A 230 kV AC transmission line would connect the Albrae BESS to the existing PG&E Newark 230 kV Substation and a 230 kV transmission line would connect the Bayland BESS to the existing SVP NRS 230 kV Substation. Refer to **Figure 4-2**, *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 amount of energy storage that would be needed to address all reliability issues identified in the area (CAISO 2024). 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: KP Environmental, 2024

Power the South Bay

Figure 4-2
Energy Storage Alternative

The CPUC rejected the Energy Storage Alternative from more detailed consideration because the potential alternative failed screening based on two of the four screening criteria. **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

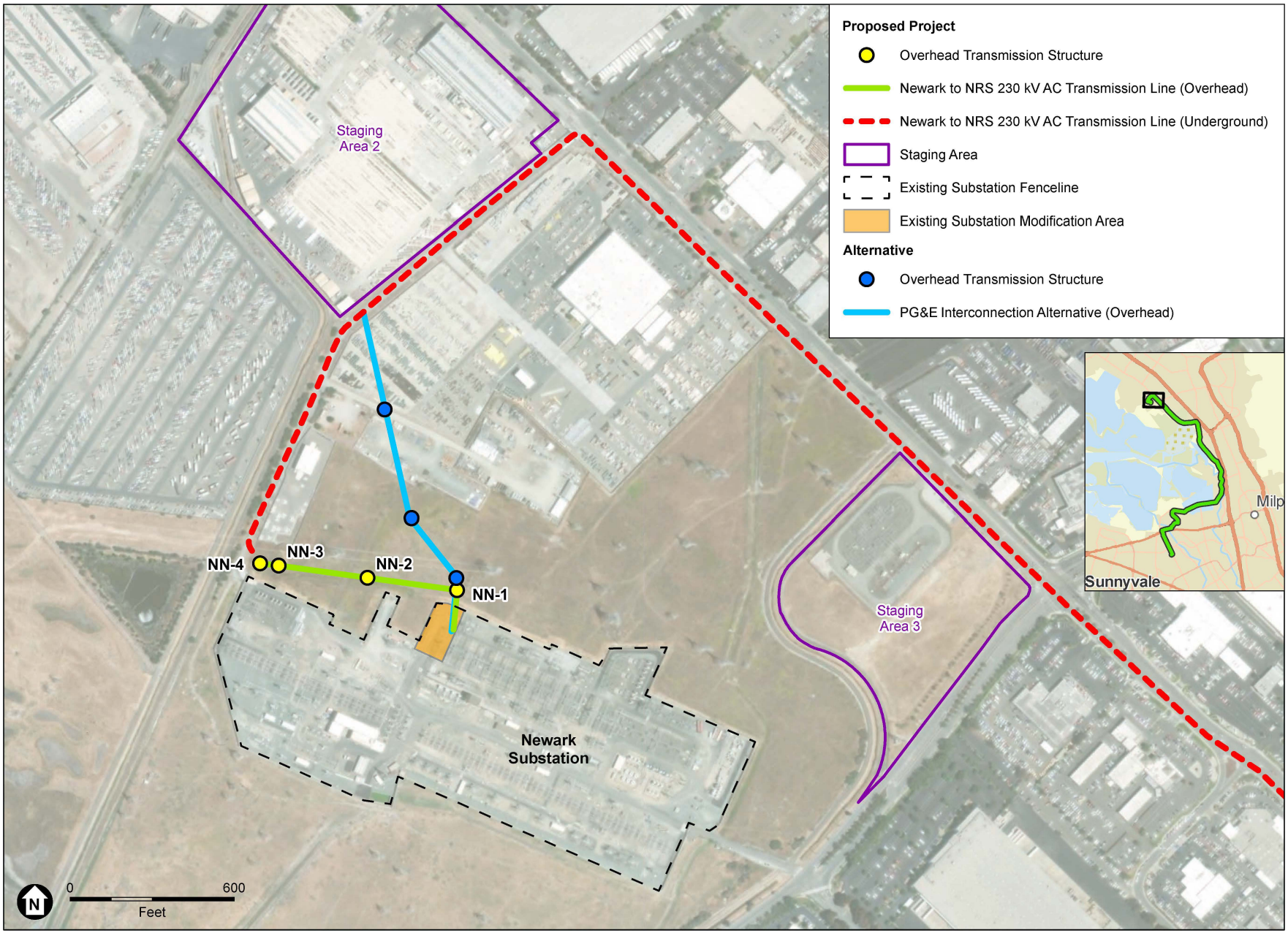
Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Unknown	Because studies have shown that the charging capacity of the San José system is insufficient compared to the size of energy storage needed to address all reliability issues, it is unlikely that this alternative by itself would meet crucial Project objectives such as meeting 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 amount 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 Newark 230 kV and SVP NRS 230 kV substations. This would result in a reduction of 8.6 miles of transmission line and a commensurate reduction of 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 PG&E Interconnection Alternative

4.5.3.1 Description

The PG&E Interconnection Alternative would be a short overhead transmission line alignment that would exit the proposed modifications area at the existing PG&E Newark 230 kV Substation (Existing Substation Modification Area) to the north-northeast and would include three overhead structures on PG&E land that contains existing transmission lines. This alternative is based on the Baylands to NRS Alternative 1 that was identified by LSPGC in its PEA (LSPCG 2025). The alignment would replace 0.16 mile of overhead transmission line and 0.20 mile of underground transmission line with approximately 0.23 mile of overhead transmission line (see **Figure 4-3**, *PG&E Interconnection Alternative*).

Although the alignment of the PG&E Interconnection Alternative is shorter than the proposed alignment it would replace (i.e., the corresponding portion of the Project's alignment), and thus would reduce some impacts from construction required to install line segments, the sites are surrounded by PG&E uses to the west, south, and east, and industrial uses to the north, and might require relocation of existing PG&E transmission lines and towers along the alignment. In addition, this alternative would likely require three-pole structures to guide the transmission line under an existing PG&E 230 kV transmission line (LSPGC 2024).



SOURCE: KP Environmental, 2024

Power the South Bay Project

Figure 4-3
PG&E Interconnection Alternative

ESA

4.5.3.2 Rationale for Rejection

Due to the congested nature of PG&E transmission line infrastructure in the area, the PG&E Interconnection Alternative might require PG&E to relocate some of its existing transmission line assets to allow for adequate space for installation. This, in combination with the potential requirement to install three-pole structures, would require more intense construction activities for a longer period than the proposed segment of the Project that the alternative would replace, which could increase construction emissions compared to the Project along with related impacts, such as air quality, hazards, transportation, and public services impacts. In addition, relocation of the existing PG&E transmission infrastructure could necessitate additional outages of the PG&E transmission system, which would be considered an adverse impact associated with disruption to utilities. Any impacts avoided by the alternative's shorter alignment would be offset by additional impacts resulting from these additional requirements.

CEQA Guidelines Section 15126.6(f)(2)(A) states, "The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR."

Therefore, the PG&E Interconnection Alternative was rejected from more detailed consideration because the alternative would not reduce potentially significant impacts and could increase impacts relative to those that would be generated by the Project. **Table 4-3**, *Screening: PG&E Interconnection Alternative*, provides a brief explanation of the reasons underlying the CPUC's determination.

TABLE 4-3
SCREENING: PG&E INTERCONNECTION ALTERNATIVE

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Pass	The alternative would meet most of the Project objectives.
Would the alternative be potentially feasible?	Pass	The PG&E Interconnection Alternative would be potentially feasible.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Fail	The alternative may avoid or reduce certain impacts associated with the proposed Project, but would likely result in more or additional impacts related to construction, such as air quality, hazards, utilities, public services, and transportation.
Would the alternative be remote or speculative?	Pass	The alternative would not be remote or speculative.

NOTES:

a. Table footnote text.

SOURCE: Summarized by ESA 2024

4.5.4 Gold Street Technology Center Alternative

4.5.4.1 Description

The Gold Street Technology Center Alternative (Gold Street Alternative) would deviate from the Project alignment west of the location of the Project's Horizontal Directional Drill 8, near the crossing at Guadalupe River, at the private property parking lot associated with the Gold Street Technology Center. The Gold Street Alternative would continue underground in the parking lot and access road generally northwest for approximately 0.2 mile until reaching Gold Street. At Gold Street, the alignment would then travel south for approximately 0.1 mile before connecting with the Project alignment. The Gold Street Alternative alignment would be completely underground for a total length of 0.3 mile, compared to 0.2 mile of the Project underground alignment it would replace. The Gold Street Alternative is technically feasible and would achieve the Project objectives. It would have fewer impacts to biological resources, but more and greater impacts to hazardous waste, noise, traffic, and utilities, and possibly other impacts related to construction, such as air quality from construction emissions.

4.5.4.2 Rationale for Rejection

The Gold Street Alternative would require more underground transmission line work than the Project segment it would replace, which could increase construction emissions and noise levels compared to the Project. For example, there are sensitive receptors (Summerset Mobile Estates) approximately 130 feet from this alternative alignment that could be exposed to higher levels of construction emissions and noise levels. Further, the alignment would cross a parking lot and run parallel to an approximately 30-foot-wide access road used by several companies. Construction of the alignment would require temporary closure of the access road, which is the only point of entry/exit to the buildings located at 2160 Gold Street and 2190 Gold Street. Thus, the Gold Street Alternative could have hazards, public services, and transportation impacts related to substantial increases in public hazards and adequate emergency access.

In consideration of CEQA Guidelines Section 15126.6(f)(2)(A), as discussed above, the increased underground segment would result in increased impacts resulting from construction, such as those related to air quality, noise, hazards, transportation, utilities, and public services. The alignment would pass near or adjacent to sensitive receptors, such as residential neighborhoods. Therefore, the Gold Street Alternative has been screened from more detailed consideration because the potential alternative would not reduce potentially significant impacts and could increase impacts relative to those that would be generated by the Project. **Table 4-4**, *Screening: Gold Street Technology Center Alternative*, provides a brief explanation of the reasons underlying the CPUC's determination.

TABLE 4-4
SCREENING: GOLD STREET TECHNOLOGY CENTER ALTERNATIVE

Screening Criteria	Pass / Fail	Rationale
Would the alternative meet most of the basic project objectives?	Pass	The Gold Street Technology Center Alternative would meet most of the basic Project objectives.
Would the alternative be potentially feasible?	Pass	The Alternative would be potentially feasible.
Could the alternative avoid or substantially reduce a potential significant impact of the Project?	Fail	While the Alternative may reduce or avoid some of the Project impacts, it would result in more or additional impacts than the Project as proposed.
Would the alternative be remote or speculative?	Pass	The Gold Street Technology Center Alternative would not be remote or speculative.

4.6 Alternatives Evaluated in Detail

Based on initial screening, the CPUC carried forward the following three alternatives for more detailed consideration: the CEQA-required No Project Alternative, the Additional Underground Alternative (Alternative 1), and the Transmission Line Alignment Alternative (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 South Bay 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 SVP planning area, resulting in multiple near-term and long-term overloads in the San José area 115 kV system. As discussed above, the Project has been designed to achieve the Functional Specifications, which were 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 lines as new demand is added to the system, primarily driven by

increased data center 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 Additional Underground Alternative (Alternative 1)

In its EIR scoping letter for the Project (see **Appendix B**, *Scoping Report*), the California Department of Fish and Wildlife (CDFW) requested that the Draft EIR include measures to require all powerlines to be placed underground, if feasible, in order to avoid collision and electrocution hazards to birds. The proposed transmission line would be installed mostly underground but would include approximately 2.1 miles of overhead transmission line. In response to CDFW's input, this alternative would result in approximately 2 miles of the transmission line being placed underground in the proposed alignment within the San José-Santa Clara Regional Wastewater Facility (RWF) drying beds and would avoid the need for proposed overhead transmission structures NN-5 through NN-15 (see **Figure 4-4**, *Additional Underground Transmission Line Alternative*). The alternative underground segment could be installed using open trench or a series of horizontal directional drills (HDD), potentially at the locations proposed for structures NN-5 through NN-15. The underground line could also be installed in an alignment slightly east of the proposed alignment within the existing perimeter access road for the RWF drying beds. The underground line could also be installed along New Street, diverging from the Project alignment at pole NN-12, and navigate north along Zanker Road to re-align with the Project alignment near the northeastern corner of the RWF (this would avoid undergrounding along one of the RWF drying beds and reduce any potential logistical constraints posed by the need to accommodate the drying beds' infrastructure, which include narrow berms between the beds). Apart from this segment between NN-5 and NN-15 depicted in Figure 4-4, the Project as proposed, including underground and overhead transmission lines, substation upgrades, and other components, would remain unchanged under Alternative 1.[2]

One of the main motivations for installing transmission lines underground is to reduce aesthetics- and biological resources-related impacts, such as those that reduce the scenic quality of an area or increase the risk of collision or electrocution for birds or bats, respectively. As discussed in Impact 3.1-1 under Section 3.1, *Aesthetics*, the approximately two miles of overhead transmission line alignment would be visually consistent with existing utilities in the study area and would not create a strong visual contrast at public viewpoints and for identified viewer groups. While the Project would have less-than-significant impacts on aesthetics, Alternative 1's impacts on aesthetics would be further reduced compared to the Project because the transmission line under this alternative would be mostly underground and therefore would have fewer long-term aesthetic effects to the existing viewshed in the area.

[2] There is one additional approximately 700-foot overhead segment associated with the Project adjacent to the existing PG&E Newark 230 kV Substation; however, this segment would be part of PG&E's interconnection (i.e., PG&E portion of work for the Project), and is therefore not under the jurisdiction of this CPCN application and cannot be required to be undergrounded as part of Alternative 1.

SOURCE: KP Environmental, 2024

Power the South Bay Project

Figure 4-4
Additional Underground Alternative

ESA

Further, as discussed in Impact 3.4-7 under Section 3.7, *Biological Resources*, while the Project would have less-than-significant impacts related to substantial collision or electrocution risk for birds or bats with the implementation of mitigation measures, there remains a slight yet existing risk for birds or bats from the presence of overhead transmission lines. Therefore, the impact of the proposed overhead segment of the Project (i.e., along the RWF drying beds) relating to the risk of bird and bat collision and electrocution remains, whereas the implementation of Alternative 1 would almost completely avoid this potential impact (i.e., all but 0.1 mile of Alternative 1 would be underground, compared to the length of overhead line proposed in the Project, which totals 2.1 miles). Additionally, the Project would result in impacts associated with the removal of trees for overhead transmission line installation, while Alternative 1 would require less or no tree removal as aboveground structures would not be necessary. In conclusion, Alternative 1 would reduce long term or operational effects compared to the Project related to aesthetics and biological resources.

However, Alternative 1 could cause additional environmental impacts. The RWF drying beds include biosolids that contain hazardous wastes such as polychlorinated biphenyls (PCBs). Underground construction activities along this alignment could increase the risk of exposure of the environment and public to those hazardous wastes. In other words, due to the increased ground disturbance associated with undergrounding techniques, Alternative 1 would have greater short-term effects related to hazards and hazardous materials. However, as with the Project, Alternative 1 would also be subject to applicable mitigation measures (e.g., Mitigation Measure 3.9-1a through Mitigation Measure 3.9-1c), which would reduce or avoid potential environmental impacts related to hazards and hazardous materials.

4.6.3 Transmission Line Alignment Alternative (Alternative 2)

The Transmission Line Alignment Alternative (Alternative 2) is based on a compilation of the Albrae to Baylands Alternative 1, Albrae to Baylands Alternative 2, and NRS to Baylands Alternative 1 that LSPGC identified in its PEA (LSPGC 2025).

Starting from the north, the northern underground portion of Alternative 2 would diverge from the Project alignment and continue in a southerly direction underground in McCarthy Boulevard where it would then transition to an overhead position along McCarthy Boulevard, near a Coyote Creek Trail trailhead. The alignment would proceed south, then west over Coyote Creek and cross two existing PG&E transmission lines before turning south again, roughly paralleling the existing PG&E transmission lines through the RWF drying beds. The overhead alignment would continue west along the southern boundary of the drying beds toward and along McCarthy Lane. The transmission line would then head south for approximately 500 feet along Zanker Road, before turning west and continuing overhead to the southwestern corner of the RWF. At the southwest corner of the RWF, the alignment would transition again from overhead to underground and would continue south-southwest for approximately 1,300 feet via an HDD segment through vacant land within a burrowing owl conservation easement, and then continue underground via open trenching for approximately 1,700 feet along Nortech Parkway before connecting with the Project alignment at Disk Drive (see **Figure 4-5**, *Transmission Line Alignment Alternative*). The portions of the Project as proposed, north of the Alternative 2

SOURCE: KP Environmental, 2024

Power the South Bay Project

Figure 4-5
Transmission Line Alignment Alternative

ESA

divergence near McCarthy Boulevard and south of Disk Drive, as well as all other components of the Project such as substation upgrades, would remain unchanged.

The Alternative 2 segment would total approximately 3.8 miles, including 1.2 miles underground and 2.6 miles overhead, compared to 4.2 miles of the Project alignment it would replace, which includes 2.3 miles underground and approximate 1.9 miles of overhead transmission line (see Figure 4-5). Alternative 2 is feasible and would achieve the Project objectives. Alternative 2 reduce noise impacts (i.e., lesser, short-term noise effects) compared to the Project because the transmission line alignment would be farther from residences in the vicinity of Grand Boulevard, and there would be reduced air quality and greenhouse gas emissions impacts due to the alternative's reduced length and reduced underground installation compared to the Project (i.e., lesser, short-term air quality and greenhouse gas emissions effects). Further, Alternative 2 would reduce construction-related transportation impacts compared to the Project (i.e., lesser, short-term transportation effects) because fewer feet of the alignment would be installed along public roads compared to the Project, which would run along Los Esteros Road, Grand Boulevard, and Disk Drive.

However, Alternative 2 would have a greater impact on biological resources due to the HDD segment that would be located along a burrowing owl conservation easement (i.e., greater short-term biological resources effects) and due to increases in overhead transmission line length, which would result in a higher risks of impacts related to collision and/or electrocution on birds/bats (i.e., greater long-term biological resources effects). Additionally, Alternative 2 would have greater long-term effects on aesthetics from the increased length of the overhead transmission line.

Additionally, Alternative 2 would have greater impacts on recreational resources compared to the Project, as the Alternative 2 alignment would cross the Coyote Creek Trail in two separate locations. Part of the Bay Trail network, the Coyote Creek Trail would be intersected by the Alternative 2 alignment once at the northern portion of the RWF, where transmission lines would be installed underground, and again roughly 0.5 miles south, where transmission lines would be installed overhead. The underground portion of the alignment would have short-term impacts to the recreational resource during construction, while the overhead portion would have long-term impacts to aesthetics along the trail. These impacts are greater than those imposed by the Project, which travels adjacent to the Coyote Creek Trail but does not intersect the trail at any point.

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 Alternative 1, Alternative 2, 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 Alternative 1, Alternative 2, and the No Project Alternative relative to the potential environmental impacts of the Project as proposed to make a preliminary determination of the Environmentally Superior Alternative.

4.8 Comparison of Alternatives

The comparison of alternatives provided in **Table 4-5**, *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. When the environmentally superior alternative is the No Project Alternative, CEQA requires the EIR also to 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 draft stage, Alternative 1 has been determined to be preferred because, relative to the Project, it would avoid potentially significant impacts of the Project on biological resources and aesthetics. However, Alternative 1 would potentially result in greater environmental impacts than the Project related to hazards or hazardous materials, as well as some impacts related to air quality.

As discussed above, the Project would have less-than-significant impacts related to substantial collision or electrocution risk for birds or bats with the implementation of mitigation measures; there remains, however, an existing risk for birds or bats from the presence of overhead transmission lines. Because all but 0.1 mile of Alternative 1 would be underground, compared to the Project's 2.1 miles of overhead line, the implementation of Alternative 1 would almost completely avoid this potential impact, as well as impacts associated with the removal of trees for overhead transmission line installation. Alternative 1's impacts on aesthetics would likewise be further reduced compared to the Project because the transmission line constructed in this alternative would be mostly underground and therefore would have fewer long-term aesthetic effects to the existing viewshed in the area.

Alternative 1's increased ground disturbance associated with undergrounding techniques could, as discussed above, result in greater impacts from exposure to hazardous wastes as construction activities along the RWF drying beds risk disturbing hazardous biosolids. Likewise, underground transmission line construction activities, which require more material handling and equipment use compared to overhead construction activities and thus generate higher construction-related emissions, would result in greater impacts to air quality associated with Alternative 1 than the Project as proposed.

However, it is important to note that Alternative 1's impacts associated with hazards and air quality are short-term impacts which could adversely affect the environment only during construction activities, while the impacts avoided or reduced by implementation of Alternative 1—those related to biological resources and aesthetics—are long-term impacts which would persist into the Project's operational phase. Therefore, though Alternative 1 would still result in impacts that require mitigation or are significant and unavoidable in the near term, Alternative 1 is still considered the environmentally superior alternative for its tendency to reduce impacts caused by Project operations.

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 Alternative 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.

TABLE 4-5
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 1 Compared to the Project*	Impacts of Alternative 2 Compared to the Project*
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 conflict with applicable zoning and other regulations governing scenic quality in the area. **Impact 3.1-2: LSM.** The Project could create a new temporary source of light or glare. However, implementation of Mitigation Measure 3.1-2 would ensure that impacts associated with light and glare would be less than significant.	**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 damage scenic resources within a state scenic highway. **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.	**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 Alternative 1 would not be visible from designated or eligible state scenic highways due to distance. **Impact 3.1-1: LTS** (less than the Project) because all but 0.1 of the transmission line would be installed underground, the operation impact associated with conflicting with zoning and other regulations governing scenic quality in the area would be reduced. The transmission line would no longer be visible from the Coyote Creek Trail, the City of Fremont's gateway (I-880 and Milpitas border), or the City of San José-designated urban corridors I-880. **Impact 3.1-2: LSM** (less than the Project) because there would be less potential for glare due to less overhead transmission line; however, the project under Alternative 1 could still create a new temporary source of light or glare. Implementation of Mitigation Measure 3.1-2 would ensure that the impact would be less than significant.	**Overall: Greater 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 Alternative 2 would not be visible from designated or eligible state scenic highways due to distance. **Impact 3.1-1: LTS** (greater than the Project) because, there would be an increase in overhead transmission line generally along Zanker Road, McCarthy Lane, and through San José-Santa Clara Regional Wastewater Facility (RWF) property and nearby open spaces. Therefore, Alternative 2 would have greater, long-term impacts related to this criterion. **Impact 3.1-2: LSM** (greater than the Project) because there would be greater potential for glare due to more overhead transmission line; therefore, Alternative 2 would have greater, long-term impacts related this this criterion. However, implementation of Mitigation Measure 3.1-2 would ensure that the impact would be less than significant.
Agriculture and Forestry Resources			
Criterion a: No Impact. The Project would not 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. **Criterion b:** No Impact. The Project would not conflict with existing zoning for agriculture use, or a Williamson Act contract. **Criterion c:** No Impact. 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]). **Criterion d:** No Impact. The Project would not result in the loss of forest land or conversion of forest land to non-forest use. **Criterion e:** No Impact. 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.	**Overall: Same as the Project.** **Criterion a:** No Impact (same as the Project) because no transmission project–related development would occur that could 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. **Criterion b:** No Impact (same as the Project) because no transmission project–related development would occur that could conflict with existing zoning for agriculture use, or a Williamson Act contract. **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 (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]). **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 (same as the Project) because no transmission project–related development would occur that could 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.	**Overall: Same as the Project.** **Criterion a:** No Impact (same as the Project) because the project under Alternative 1 would not 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. **Criterion b:** No Impact (same as the Project) because the project under Alternative 1 would not conflict with existing zoning for agriculture use, or a Williamson Act contract. **Criterion c:** No Impact (same as the Project) because the project under Alternative 1 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]). **Criterion d:** No Impact (same as the Project) because the project under Alternative 1 would not result in the loss of forest land or conversion of forest land to non-forest use. **Criterion e:** No Impact (same as the Project) because the project under Alternative 1 would not 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.	**Overall: Same as the Project.** **Criterion a:** No Impact (same as the Project) because the project under Alternative 2 would not 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. **Criterion b:** No Impact (same as the Project) because the project under Alternative 2 would not conflict with existing zoning for agriculture use, or a Williamson Act contract. **Criterion c:** No Impact (same as the Project) because the project under Alternative 2 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]). **Criterion d:** No Impact (same as the Project) because the project under Alternative 2 would not result in the loss of forest land or conversion of forest land to non-forest use. **Criterion e:** No Impact (same as the Project) because the project under Alternative 2 would not 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.

TABLE 4-5
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 1 Compared to the Project*	Impacts of Alternative 2 Compared to the Project*
Air Quality			
Impact 3.3-1: LSM for exhaust; significant and unavoidable for fugitive dust. The Project would conflict with or obstruct implementation of the applicable air quality plan. **Impact 3.3-2: LSM for exhaust; significant and unavoidable for fugitive dust**. 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. **Impact 3.3-3: SU**. The Project would expose sensitive receptors to substantial pollutant concentrations. **Impact 3.3-4: LTS**. The Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	**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 any criteria pollutant 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.	**Overall: Greater than the Project.** **Impact 3.3-1: SU** (greater than the Project) because Alternative 1 would conflict with or obstruct implementation of the applicable air quality plan. Underground transmission line construction activities require on average more than ten times the material handling and associated equipment use related to grading, excavation, and general site preparation compared to overhead construction activities (see Project Description Table 2-6). Therefore, on a mile-per-mile basis, with all else (e.g., duration) equal, it is reasonable to assume that underground transmission line construction activities could generate up to ten times the emissions compared to overhead transmission line construction. Using this assumption, mitigated transmission line construction NOx emissions would increase by up to 18 percent to over 40 pounds per day, which would bring the total NOx emissions for the Project to more than 57 pounds per day, which would be a significant impact. **Impact 3.3-2: SU** (greater than the Project) because Alternative 1 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. (see discussion for Impact 3.3-1, above). **Impact 3.3-3: SU** (same as the Project) because Alternative 1 would expose sensitive receptors to substantial pollutant concentrations. Although there are no sensitive receptors in the vicinity of the underground segment, the same SU impact would occur under Alternative 1 associated with the NRS Substation construction. **Impact 3.3-4: LTS** (same as the Project) because Alternative 1 would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	**Overall: Less than the Project.** **Impact 3.3-1: LSM** for exhaust; SU for fugitive dust (less than the Project) because Alternative 2 would conflict with or obstruct implementation of the applicable air quality plan. As described for Alternative 1, on a mile-per-mile basis, with all else (e.g., duration) equal, it is reasonable to assume that underground transmission line construction activities could generate up to ten times the emissions compared to overhead transmission line construction. Since Alternative 2 would result in about one mile less underground line construction, it would result in reduced emissions compared to the Project. **Impact 3.3-2: LSM** for exhaust; SU for fugitive dust (less than the Project) because Alternative 2 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. (See discussion for Impact 3.3-1, above). **Impact 3.3-3: SU** (same as the Project) because Alternative 2 would expose sensitive receptors to substantial pollutant concentrations. Although there are fewer sensitive receptors in the vicinity of the Alternative 2 alignment compared to the Project segment, the same SU impact would occur under Alternative 2 associated with the modifications at SVP NRS Substation 230 kV Substation. **Impact 3.3-4: LTS** (same as the Project) because Alternative 2 would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.
Biological Resources			
Impact 3.4-1: LSM. 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. **Impact 3.4-2: LSM**. The Project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. **Impact 3.4-3: LSM**. The Project would 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 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**. Project construction 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**. Project construction 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.	**Overall: Less than the Project.** **Impact 3.4-1:** 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 Wildlife or U.S. Fish and Wildlife Service. **Impact 3.4-2:** 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 Wildlife or U.S. Fish and Wildlife Service. **Impact 3.4-3:** 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. **Impact 3.4-4:** 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.	**Overall: Less than the Project.** **Impact 3.4-1: LSM** (same as the Project) because while Alternative 1 could have a substantial adverse effect related to this criterion, application of mitigation measures would ensure that impacts would be less than significant. Alternative 1 is anticipated to have similar effects related to this criterion as the Project. **Impact 3.4-2: LSM** (same as the Project) because while Alternative 1 could have a substantial adverse effect related to this criterion, application of mitigation measures would ensure that impacts would be less than significant. Alternative 1 is anticipated to have similar effects related to this criterion as the Project. **Impact 3.4-3: LSM** (same as the Project) because while Alternative 1 could have a substantial adverse effect related to this criterion, application of mitigation measures would ensure that impacts would be less than significant. Alternative 1 is anticipated to have similar effects related to this criterion as the Project. **Impact 3.4-4: LSM** (same as the Project) because while Alternative 1 could have a substantial adverse effect related to this criterion, application of mitigation measures would ensure that impacts would be less than significant. Alternative 1 is anticipated to have similar effects related to this criterion as the Project. **Impact 3.4-5: LSM** (same as the Project) because while Alternative 1 could have a substantial adverse effect related to this criterion, application of mitigation measures would ensure that impacts would be less than significant. Alternative 1 is anticipated to have similar effects related to this criterion as the Project.	**Overall: Greater than the Project.** **Impact 3.4-1: LSM** (greater than the Project) because Alternative 2 would traverse directly across vacant land within a burrowing owl conservation easement, which could result in greater, short-term effects related to this criterion compared to the Project. **Impact 3.4-2: LSM** (same as the Project) because while Alternative 2 could have a substantial adverse effect related to this criterion, application of mitigation measures would ensure that impacts would be less than significant. Alternative 1 is anticipated to have similar effects related to this criterion as the Project. **Impact 3.4-3: LSM** (same as the Project) because while Alternative 2 could have a substantial adverse effect related to this criterion, application of mitigation measures would ensure that impacts would be less than significant. Alternative 1 is anticipated to have similar effects related to this criterion as the Project. **Impact 3.4-4: LSM** (same as the Project) because while Alternative 2 could have a substantial adverse effect related to this criterion, application of mitigation measures would ensure that impacts would be less than significant. Alternative 1 is anticipated to have similar effects related to this criterion as the Project. **Impact 3.4-5: LSM** (same as the Project) because while Alternative 2 could have a substantial adverse effect related to this criterion, application of mitigation measures would ensure that impacts would be less than significant. Alternative 1 is anticipated to have similar effects related to this criterion as the Project.

TABLE 4-5
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 1 Compared to the Project*	Impacts of Alternative 2 Compared to the Project*
Impact 3.4-7: LSM. The Project would not create a substantial collision or electrocution risk for birds or bats.	**Impact 3.4-5:** 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. **Impact 3.4-6:** 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. **Impact 3.4-7:** 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.	**Impact 3.4-6: LTS** (same as the Project) because while Alternative 1 could have a substantial adverse effect related to this criterion, application of mitigation measures would ensure that impacts would be less than significant. Alternative 1 is anticipated to have similar effects related to this criterion as the Project. **Impact 3.4-7: LSM** (less than the Project) because Alternative 1 would have significantly less overhead transmission line than the Project, therefore, there would be less collision or electrocution risk for birds or bats.	**Impact 3.4-6: LTS** (same as the Project) because while Alternative 2 could have a substantial adverse effect related to this criterion, application of mitigation measures would ensure that impacts would be less than significant. Alternative 1 is anticipated to have similar effects related to this criterion as the Project. **Impact 3.4-7: LSM** (greater than the Project) because Alternative 2 would have more overhead transmission line than the Project, which would introduce additional collision or electrocution risk for birds or bats compared to the Project.
Cultural Resources			
Criterion a: NI. The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. **Impact 3.5-1: LSM**. The Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact 3.5-2: LSM**. The Project would not disturb any human remains, including those interred outside of dedicated cemeteries.	**Overall: Less than the Project.** **Criterion a:** No Impact (less as the Project) because no transmission project–related development would occur that could result in consumption of energy resources during Project construction or operation. **Criterion b:** 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. **Criterion c:** 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.	**Overall: Same as the Project.** **Criterion a:** No Impact (same as the Project) because Alternative 1 would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. **Criterion b: LSM** (same as the Project) because Alternative 1 would not cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5. **Criterion c: LSM** (same as the Project) because Alternative 1 would not disturb any human remains, including those interred outside of dedicated cemeteries.	**Overall: Same as the Project.** **Criterion a:** No Impact (same as the Project) because Alternative 2 would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. **Criterion b: LSM** (same as the Project) because Alternative 2 would not cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5. **Criterion c: LSM** (same as the Project) because Alternative 2 would not disturb any human remains, including those interred outside of dedicated cemeteries.
Energy			
Impact 3.6-1: LTS. The Project would result in consumption of energy resources during Project construction or operation. **Criterion b:** No Impact. The Project would result in consumption of energy resources during Project construction or operation. **Criterion c:** No Impact. The Project would result in consumption of energy resources during Project construction or operation.	**Overall: Less than the Project.** **Criterion a:** No Impact (less than the Project) because no transmission project–related development would occur that could result in consumption of energy resources during Project construction or operation. **Criterion b:** No Impact (same as the Project) because no transmission project–related development would occur that could result in consumption of energy resources during Project construction or operation. **Criterion c:** No Impact (same as the Project) because no transmission project–related development would occur that could result in consumption of energy resources during Project construction or operation.	**Overall: Same as the Project.** **Impact 3.6-1: LTS** (same as the Project) because Alternative 1 would result in consumption of energy resources during Project construction or operation. **Criterion b:** No Impact (same as the Project) because Alternative 1 would result in consumption of energy resources during Project construction or operation. **Criterion c:** No Impact (same as the Project) because Alternative 1 would result in consumption of energy resources during Project construction or operation.	**Overall: Same as the Project.** **Impact 3.6-1: LTS** (same as the Project) because Alternative 2 would result in consumption of energy resources during Project construction or operation. **Criterion b:** No Impact (same as the Project) because Alternative2 would result in consumption of energy resources during Project construction or operation. **Criterion c:** No Impact (same as the Project) because Alternative 2 would result in consumption of energy resources during Project construction or operation.
Geology, Soils, and Paleontological Resources			
Criterion a.i: No Impact. 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 3.7-1a: 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 3.7-1b: 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. **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 landslides.	**Overall: Less than the Project** **Criterion a:** 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, seismic related ground-shaking, including liquefaction, or 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 would be located on a geologic unit or soil that is unstable, or that would	**Overall: Same as the Project.** **Criterion a:** No Impact (same as the Project) because Alternative 1 would not cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. **Impact 3.7-1a: LTS** (same as the Project) because Alternative 1 would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. **Impact 3.7-1b: LTS** (same as the Project) because Alternative 1 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: Same as the Project.** **Criterion a:** No Impact (same as the Project) because Alternative 2 would not cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. **Impact 3.7-1a: LTS** (same as the Project) because Alternative 2 would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. **Impact 3.7-1b: LTS** (same as the Project) because Alternative 2 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.

TABLE 4-5
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 1 Compared to the Project*	Impacts of Alternative 2 Compared to the Project*
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 be located on expansive soil creating substantial direct or indirect risks to life or property. **Impact 3.7-5: LTS.** Project construction would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	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 (same 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 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.	**Impact 3.7-1c: LTS** (same as the Project) because Alternative 1 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** (same as the Project) because construction of Alternative 1 would not result in substantial soil erosion or the loss of topsoil. **Impact 3.7-3: LTS** (same as the Project) because Alternative 1 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** (same as the Project) because Alternative 1 would not be located on expansive soil creating substantial direct or indirect risks to life or property. **Criterion e:** No Impact (same as the Project) because Alternative 1 would not be located in expansive soil creating substantial direct or indirect risks to life or property. **Impact 3.7-5: LTS** (same as the Project) because construction of Alternative 1 would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; however, the additional underground line could potentially encounter a unique paleontological resource or site or unique geologic feature.	**Impact 3.7-1c: LTS** (same as the Project) because Alternative 2 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** (same as the Project) because construction of Alternative 1 would not result in substantial soil erosion or the loss of topsoil. **Impact 3.7-3: LTS** (same as the Project) because Alternative 2 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** (same as the Project) because Alternative 2 would not be located on expansive soil creating substantial direct or indirect risks to life or property. **Criterion e:** No Impact (same as the Project) because Alternative 2 would not be located in expansive soil creating substantial direct or indirect risks to life or property. **Impact 3.7-5: LTS** (same as the Project) because construction of Alternative 1 would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; however, the additional underground line could potentially encounter a unique paleontological resource or site or unique geologic feature.
Greenhouse Gas Emissions			
Impact 3.8-1: LTS. The Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. **Impact 3.8-2: LTS.** The Project would not 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, either directly or indirectly, that may have a significant impact on the environment. **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.	**Overall: Greater than the Project.** **Impact 3.8-1: LTS** (greater than the Project) because Alternative 1 would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; however, overall emissions would be increased due to increased underground construction activities. Therefore, Alternative 1 would have greater, short-term impacts related to this criterion. **Impact 3.8-2: LTS** (same as the Project) because Alternative 1 would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	**Overall: Less than the Project.** **Impact 3.8-1: LTS** (less than the Project) because Alternative 2 would overall have less transmission line length than the Project, therefore, this alternative would generate less greenhouse gas emissions. **Impact 3.8-2: LTS** (same as the Project) because Alternative 2 would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
Hazards and Hazardous Materials			
Impact 3.9-1: LSM. 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: LSM.** 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. **Criterion e and h:** No Impact. 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; or create a significant hazard to air traffic from the installation of new power lines and structures. **Impact 3.9-4: LSM.** Project construction would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **Impact 3.9-5: 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.	**Overall: Less than the Project.** **Criterion a:** No Impact (less than the Project) because no transmission project–related development would occur that could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. **Criterion b:** No Impact (less than the Project) because no transmission project–related development would occur that could 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. **Criterion c:** 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. **Criterion d:** 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, but would not create a significant hazard to the public or the environment.	**Overall: Greater than the Project.** **Impact 3.9-1: LSM** (greater than the Project) because Alternative 1 would require more ground disturbance as a result of undergrounding along the RWF drying beds. Therefore, Alternative 1 would have greater, short-term effects related to this criterion. **Impact 3.9-2: LTS** (same as the Project) because Alternative 1 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: LSM** (greater than the Project) because Alternative 1 would require more ground disturbance as a result of undergrounding along the RWF drying beds. Therefore, Alternative 1 would have greater, short-term effects related to this criterion. **Criterion e and h:** No Impact (same as the Project) because Alternative 1 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; or create a significant hazard to air traffic from the installation of new power lines and structures.	**Overall: Same as the Project.** **Impact 3.9-1: LSM** (same as the Project) because Alternative 2 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** (same as the Project) because Alternative 2 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: LSM** (same as the Project) because Alternative 2 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. **Criterion e and h:** No Impact (same as the Project) because Alternative 2 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; or create a significant hazard to air traffic from the installation of new power lines and structures.

TABLE 4-5
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 1 Compared to the Project*	Impacts of Alternative 2 Compared to the Project*
Impact 3.9-6: LTS. 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. **Impact 3.9-7: LTS.** The Project would not expose workers or the public to excessive shock hazards.	**Criterion e:** No Impact (same as 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? **Criterion f:** 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? **Criterion g:** 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? **Criterion h:** No Impact (same as the Project) because no transmission project–related development would occur that could create a significant hazard to air traffic from the installation of new power lines and structures? **Criterion i:** (No Impact (less than the Project) because no transmission project–related development would occur that could 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) because no transmission project–related development would occur that could expose people to a significant risk of injury or death involving unexploded ordnances. **Criterion k:** 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.	**Impact 3.9-4: LSM** (same as the Project) because construction of Alternative 1 could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **Impact 3.9-5: LTS** (same as the Project) because Alternative 1 would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. **Impact 3.9-6: LTS** (same as the Project) because Alternative 1 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) because Alternative 1 would not expose people to a significant risk of injury or death involving unexploded ordnances. **Impact 3.9-7: LTS** (same as the Project) because Alternative 1 would not expose workers or the public to excessive shock hazards.	**Impact 3.9-4: LSM** (same as the Project) because construction of Alternative 2 could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **Impact 3.9-5: LTS** (same as the Project) because Alternative 2 would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. **Impact 3.9-6: LTS** (same as the Project) because Alternative 2 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) because Alternative 2 would not expose people to a significant risk of injury or death involving unexploded ordnances. **Impact 3.9-7: LTS** (same as the Project) because Alternative 2 would not expose workers or the public to excessive shock hazards.
Hydrology and Water Quality			
Impact 3.10-1: LSM. Construction of the Project could violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. **Impact 3.10-2: LTS.** Construction of 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 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 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 located in flood hazard, tsunami, or seiche zones, and could risk release of pollutants due to 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.** **Criterion a:** 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 groundwater quality. **Criterion b:** 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. **Criterion c:** 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 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. **Criterion d:** 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. **Criterion e:** No Impact (less than the Project) because no transmission project–related development would occur that would be located in flood hazard, tsunami, or seiche zones, and could risk release of pollutants due to inundation. **Criterion f:** 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.	**Overall: Same as the Project.** **Impact 3.10-1: LSM** (same as the Project) because construction of Alternative 1 could violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. **Impact 3.10-2: LTS** (same as the Project) because construction of Alternative 1 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** (same as the Project) because Alternative 1 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 3.10-4: LTS** (same as the Project) because Alternative 1 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** (same as the Project) because Alternative 1 would be located in flood hazard, tsunami, or seiche zones, and could risk release of pollutants due to inundation. **Impact 3.10-6: LTS** (same as the Project) because Alternative 1 would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	**Overall: Same as the Project.** **Impact 3.10-1: LSM** (same as the Project) because construction of Alternative 2 could violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. **Impact 3.10-2: LTS** (same as the Project) because construction of Alternative 2 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** (same as the Project) because Alternative 2 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 3.10-4: LTS** (same as the Project) because Alternative 2 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** (same as the Project) because Alternative 2 would be located in flood hazard, tsunami, or seiche zones, and could risk release of pollutants due to inundation. **Impact 3.10-6: LTS** (same as the Project) because Alternative 2 would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

TABLE 4-5
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 1 Compared to the Project*	Impacts of Alternative 2 Compared to the Project*
Land Use and Planning			
Impact 3.11-1: LTS. Project construction would not physically divide an established community. **Criterion b:** No Impact. 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.	**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 (same as 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.	**Overall: Same as the Project.** **Impact 3.11-1: LTS** (same as the Project) because construction of Alternative 1 would not physically divide an established community. **Criterion b:** No Impact (same as the Project) because Alternative 1 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.	**Overall: Same as the Project.** **Impact 3.11-1: LTS** (same as the Project) because construction of Alternative 2 would not physically divide an established community. **Criterion b:** No Impact (same as the Project) because Alternative 2 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			
Criterion a: No Impact. 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. **Criterion b:** No Impact. 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.	**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 the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **Criterion b:** No Impact (same as the Project) because no transmission project–related development would occur that could 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.	**Overall: Same as the Project.** **Criterion a:** No Impact (same as the Project) because Alternative 1 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. **Criterion b:** No Impact (same as the Project) because Alternative 1 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.	**Overall: Same as the Project.** **Criterion a:** No Impact (same as the Project) because Alternative 2 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. **Criterion b:** No Impact (same as the Project) because Alternative 2 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.
Noise and Acoustics			
Impact 3.13-1: LTS. The Project would not 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 3.13-2: LTS.** The Project would not generate excessive groundborne vibration or groundborne noise levels. **Impact 3.13-3: LTS.** The Project would not expose people residing or working in 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 and in the Project area to excessive noise levels.	**Overall: Less than the Project.** **Criterion a:** No Impact (less than the Project) because no transmission project–related development would occur that could 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. **Criterion b:** No Impact (less than the Project) because no transmission project–related development would occur that could generate excessive groundborne vibration or groundborne noise levels **Criterion c:** No Impact (less than the Project) because no transmission project–related development would occur that could expose people residing or working in 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 and in the Project area to excessive noise levels.	**Overall: Same as the Project.** **Impact 3.13-1: LTS** (same as the Project) because Alternative 1 would not 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 3.13-2: LTS** (same as the Project) because Alternative 1 would not generate excessive groundborne vibration or groundborne noise levels. **Impact 3.13-3: LTS** (same as the Project) because Alternative 1 would not expose people residing or working in 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 and in the Project area to excessive noise levels.	**Overall: Less than the Project.** **Impact 3.13-1: LTS** (less than the Project) because Alternative 2's would have lesser, short-term noise impacts as the transmission line under this alternative would be farther from residences in the vicinity of Grand Boulevard. **Impact 3.13-2: LTS** (same as the Project) because Alternative 2 would not generate excessive groundborne vibration or groundborne noise levels. **Impact 3.13-3: LTS** (same as the Project) because Alternative 2 would not expose people residing or working in 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 and in the Project area to excessive 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, therefore, there would be no impact.	**Overall: Less than the Project.** **Criterion a:** 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.	**Overall: Same as the Project.** **Impact 3.14-1: LTS** (same as the Project) because Alternative 1 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 (same as the Project) because Alternative 1 would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, therefore, there would be no impact.	**Overall: Same as the Project.** **Impact 3.14-1: LTS** (same as the Project) because Alternative 2 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 (same as the Project) because Alternative 2 would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, therefore, there would be no impact.

TABLE 4-5
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 1 Compared to the Project*	Impacts of Alternative 2 Compared to the Project*
Public Services			
Impact 3.15-1: LSM. 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 and police protection.	**Overall: Less than the Project.** **Criterion a:** No Impact (less than the Project) because no transmission project–related development would occur that could 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 and police protection.	**Overall: Same as the Project.** **Impact 3.15-1: LSM** (same as the Project) because Alternative 1 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 and police protection.	**Overall: Same as the Project.** **Impact 3.15-1: LSM** (same as the Project) because Alternative 2 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 and police protection
Recreation			
Impact 3.16-1: LSM. 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. **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: LSM.** The Project would temporarily reduce or prevent access to a designated recreation facility or area. **Impact 3.16-3: LSM.** The Project 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 3.16-4: LSM.** The Project would not damage recreational trails or facilities.	**Overall: Less than the Project.** **Criterion a:** 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. **Criterion c:** 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 (less than 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. **Criterion e:** No Impact (less than the Project) because no transmission project–related development would occur that could damage recreational trails or facilities.	**Overall: Same as the Project.** **Impact 3.16-1: LSM** (same as the Project) because construction of Alternative 1 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 Alternative 1 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: LSM** (same as the Project) because Alternative 1 would temporarily reduce or prevent access to a designated recreation facility or area. **Impact 3.16-3: LSM** (same as the Project) because Alternative 1 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. Alternative 1's additional undergrounding of transmission lines would reduce this impact compared to the Project. **Impact 3.16-4: LSM** (same as the Project) because Alternative 1 would not damage recreational trails or facilities.	**Overall: Greater than the Project.** **Impact 3.16-1: LSM** (same as the Project) because construction of Alternative 2 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 Alternative 2 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: LSM** (greater than the Project) because Alternative 2 would temporarily reduce or prevent access to a designated recreation facility or area. Specifically, Alternative 2 would cross the Coyote Creek Trail twice as it would diverge and realign with the Project alignment along McCarthy Boulevard. Therefore, Alternative 2 would have greater, short-term effects related to this criterion. **Impact 3.16-3: LSM** (same as the Project) because Alternative 2 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. Alternative 2's additional undergrounding of transmission lines would reduce this impact compared to the Project. **Impact 3.16-4: LSM** (same as the Project) because Alternative 2 would not damage recreational trails or facilities.
Transportation			
Criterion a: No Impact. The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. **Impact 3.17-1: LTS.** Project operations and maintenance would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b). **Impact 3.17-2: LSM.** The Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections). **Impact 3.17-3: LSM.** Project construction would not result in inadequate emergency access. **Impact 3.17-4: LSM.** The Project would not create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations. **Impact 3.17-5: LSM.** The Project would not interfere with walking or bicycling accessibility. **Impact 3.17-6: LSM.** Construction of the Project would not substantially delay public transit.	**Overall: Less than the Project.** **Criterion a:** No Impact (same as the Project) because no transmission project–related development would occur that could conflict with a program, plan, ordinance, or policy addressing the circulation system. **Criterion b:** 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). **Criterion c:** 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). **Criterion d:** No Impact (less than the Project) because no transmission project–related development would occur that could result in inadequate emergency access. **Criterion e:** 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.	**Overall: Same as the Project.** **Criterion a:** No Impact (same as the Project) because Alternative 1 would not conflict with a program, plan, ordinance, or policy addressing the circulation system more than the Project. **Impact 3.17-1: LTS** (same as the Project) because Alternative 1's operations and maintenance would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b). **Impact 3.17-2: LSM** (same as the Project) because Alternative 1 would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) more than the Project. **Impact 3.17-3: LSM** (same as the Project) because Construction of Alternative 1 would not result in inadequate emergency access greater than the Project. **Impact 3.17-4: LSM** (same as the Project) because Alternative 1 would not create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations greater than those created by the Project.	**Overall: Less than the Project.** **Criterion a:** No Impact (same as the Project) because Alternative 2 would not conflict with a program, plan, ordinance, or policy addressing the circulation system more than the Project. **Impact 3.17-1: LTS** (same as the Project) because Alternative 2's operations and maintenance would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b). **Impact 3.17-2: LSM** (same as the Project) because Alternative 2 would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) more than the Project. **Impact 3.17-3: LSM** (less than the Project) because **c**onstruction of Alternative 2 would have less alignment installed along public roads, therefore, this alternative would have lesser, short-term impacts related to this criterion. **Impact 3.17-4: LSM** (less than the Project) because **c**onstruction of Alternative 2 would have less alignment installed along public roads, therefore, this alternative would have lesser, short-term impacts related to this criterion.

TABLE 4-5
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 1 Compared to the Project*	Impacts of Alternative 2 Compared to the Project*
	Criterion f: No Impact (less than the Project) because no transmission project–related development would occur that could interfere with walking or bicycling accessibility. **Criterion g:** No Impact (less than the Project) because no transmission project–related development would occur that could substantially delay public transit.	**Impact 3.17-5: LSM** (same as the Project) because Alternative 1 would not interfere more than the Project with walking or bicycling accessibility. **Impact 3.17-6: LSM** (same as the Project) because construction of Alternative 1 would not substantially delay public transit to a greater degree than construction of the Project.	**Impact 3.17-5: LSM** (less than the Project) because **c**onstruction of Alternative 2 would have less alignment installed along public roads, therefore, this alternative would have lesser, short-term impacts related to this criterion. **Impact 3.17-6: LSM.**(less than the Project) because **c**onstruction of Alternative 2 would have less alignment installed along public roads, therefore, this alternative would have lesser, short-term impacts related to this criterion.
Tribal Cultural Resources			
Impact 3.18-1: LSM. The Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, 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 listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources. Code Section 5020.1(k). **Impact 3.18-2: LSM.** The Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.	**Overall: Less than the Project.** **Criterion a:** 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 Public Resources Code 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 listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources. Code Section 5020.1(k). **Criterion b:** 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 Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.	**Overall: Same as the Project.** **Impact 3.18-1: LSM** (same as the Project) because Alternative 1 would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, 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 listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources. Code Section 5020.1(k). **Impact 3.18-2: LSM** (same as the Project) because Alternative 1 would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.	**Overall: Same as the Project.** **Impact 3.18-1: LSM** (same as the Project) because Alternative 2 would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, 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 listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources. Code Section 5020.1(k). **Impact 3.18-2: LSM** (same as the Project) because Alternative 2 would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.
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.** Project construction 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.** Project construction 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. **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. **Criterion e:** No Impact. The Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. **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.** **Criterion a:** 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. **Criterion b:** No Impact (less than the Project) because no transmission project–related development would occur that could have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. **Criterion c:** 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. **Criterion d:** 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. **Criterion e:** No Impact (same as the Project) because no transmission project–related development would occur that could comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	**Overall: Same as the Project.** **Impact 3.19-1:** LTS (same as the Project) because Alternative 1 could also 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 (same as the Project) because Alternative 1 would also 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 Alternative 1 could also 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 (same as the Project) because Alternative 1 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. **Criterion e:** No Impact (same as the Project) because Alternative 1 would also comply with federal, state, and local management and reduction statutes and regulations related to solid waste. **Impact 3.19-5:** LSM (same as the Project) because Alternative 1 could increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts.	**Overall: Same as the Project.** **Impact 3.19-1:** LTS (same as the Project) because Alternative 2 could also 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 (same as the Project) because Alternative 2 would also 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 Alternative 2 could also 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 (same as the Project) because Alternative 2 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. **Criterion e:** No Impact (same as the Project) because Alternative 2 would also comply with federal, state, and local management and reduction statutes and regulations related to solid waste. **Impact 3.19-5:** LSM (same as the Project) because Alternative 2 could increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts.

TABLE 4-5
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 1 Compared to the Project*	Impacts of Alternative 2 Compared to the Project*
	Criterion f: 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.		
Wildfire			
Impact 3.20-1: LSM. Project construction would not substantially impair an adopted emergency response plan or emergency evacuation plan. **Impact 3.20-2: 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 3.20-3: LTS.** The Project would not 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 3.20-4: LTS.** 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.	**Overall: Less than the Project.** **Criterion a:** No Impact (less than the Project) because no transmission project–related development would occur that could substantially impair an adopted emergency response plan or emergency evacuation plan. **Criterion b:** 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. **Criterion c:** 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 (less than 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.	**Overall: Same as the Project.** **Impact 3.20-1: LSM** (same as the Project) because Alternative 1 would not substantially impair an adopted emergency response plan or emergency evacuation plan. **Impact 3.20-2: LTS** (same as the Project) because Alternative 1 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 3.20-3: LTS** (same as the Project) because Alternative 1 would not 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 3.20-4: LTS** (same as the Project) because Alternative 1 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.	**Overall: Same as the Project.** **Impact 3.20-1: LSM** (same as the Project) because Alternative 2 would not substantially impair an adopted emergency response plan or emergency evacuation plan. **Impact 3.20-2: LTS** (same as the Project) because Alternative 2 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 3.20-3: LTS** (same as the Project) because Alternative 2 would not 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 3.20-4: LTS** (same as the Project) because Alternative 2 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.

Notes: LTS = Less than Significant; LSM = Less than Significant with Mitigation

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4.10 References

CAISO (California Independent System Operator), 2022. Revised Draft 2021-2022 Transmission Plan, March 8, 2022. Accessed webpage: https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/2021-2022-Transmission-planning-process, May 12, 2025.

LSPGC (LS Power Grid California), 2025. Application of LS Power Grid California, LLC (U-247-E) for a Certificate of Public Convenience and Necessity Authorizing Construction of the Power the South Bay Project. Amended February 28, 2025.

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CHAPTER 5
Other CEQA Considerations

5.1 Introduction

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 that cannot be avoided if the Project is implemented.

(2) Significant irreversible environmental changes that would result from implementation of 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 to air quality. 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), PG&E field protocols (FPs), and/or mitigation measures.

5.2.1 Air Quality

The Project would: conflict with or obstruct implementation of an applicable air quality plan (Impact 3.3-1); 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 (Impact 3.3-2); and expose sensitive receptors to substantial pollutant concentrations (Impact 3.3-3), which would result in significant and unavoidable environmental effects. As detailed in Section 3.3, *Air Quality*, since the proposed work for the modifications at the existing Silicon Valley Power (SVP) Northern Receiving Station (NRS) 230-kilovolt (kV) Substation, to be implemented by SVP, is not under the jurisdiction of the CPUC[1], the dust

[1] Since Silicon Valley Power's portion of work for the Project is not under the jurisdiction of the CPUC, the CPUC cannot impose or enforce mitigation measures on SVP for the Project.

emission impacts associated with the proposed modifications at the SVP NRS 230 kV Substation would result in significant and unavoidable impacts. Similarly, since SVP has not committed to implementation of Tier 4 final emissions controls, the health risk impact associated with the proposed modifications at the SVP NRS 230 kV Substation would also result in significant and unavoidable impacts. While implementation of LSPGC's or PG&E's portions of work for the Project is not anticipated to result in significant air quality impacts, without SVP's commitment to implement applicable air quality measures, the Project's air quality impacts, as a whole, would be significant and unavoidable, as discussed further in Section 3.3.

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 also result 14.13 acres of permanent disturbance on vegetation communities associated with transmission line alignment features, including modifications to the existing substations. However, as evaluated in Section 3.4, *Biological Resources*, while the Project would impact biological resources, with implementation of APMs, PG&E BMPs and FPs, and mitigation measures, impacts to biological resources would be reduced to less than significant.

Project operations 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 evaluated in Section 3.9, *Hazards and Hazards Materials*, Project construction would involve limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, etc., in order to operate 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, the emergency response plans and other procedures that would be required by the 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 and associated impacts would be reduced with implementation of these mitigative actions. State and federal regulations and safety requirements, as described in Section 3.9.2, *Regulatory Setting*, 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

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. With respect to employment, the peak employment for the Project overall would be approximately 200 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 and Santa Clara counties were 4.8 and 4.5 percent, respectively, in 2024, which was lower than the state unemployment rate of 5.4 percent (EDD 2025a, 2025b). After construction, LSPGC would hire one technician to be located near the Project site to perform routine inspections, monitoring, and repairs. Routine inspections would include, but are not limited to, monitoring of vegetation growth, road conditions, sensor and splice vault inspections, and visual transmission line inspections. Inspections would vary in frequency from annually 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 Alameda or Santa Clara counties. 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(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. Alameda and Santa Clara counties have vacancy rates of approximately 4.9 percent and 4.7 percent, respectively (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 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 be approved.

5.5.1 Environmental Justice Considerations

5.5.1.1 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*. Impacts of the Project and alternatives on sensitive receptors 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 for Exhaust Emissions; Significant and Unavoidable for Dust Emissions)
  - Alternative 1: Greater than the Project. While Alternative 1 would also result in significant and unavoidable impacts, Alternative 1 would have greater, short-term effects for this criterion since construction of the transmission line alignment under this alternative could generate up to ten times the emissions (i.e., underground transmission line construction activities typically require, on average, ten times the material handling than overhead construction activities), which would result in greater, significant effects compared to the Project.
  - Alternative 2: Less than the Project. While Alternative 2 would also result in significant and unavoidable impacts, this alternative would construct about one mile less of underground transmission line. Therefore, Alternative 2 would result in reduced emissions compared to the Project.
- **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 for Exhaust Emissions; Significant and Unavoidable for Dust Emissions)

  - Alternative 1: Greater than the Project. As discussed above, Alternative 1 could generate up to ten times the emissions as the Project, therefore, Alternative 1 would result in greater, significant effects compared to the Project.

  - Alternative 2: Less than the Project. As discussed above, Alternative 2 would construct about one mile less of underground transmission line, therefore, Alternative 2 would also result in lesser, short-term impacts related to this criterion.

- **Impact 3.3-3:** The Project would expose sensitive receptors to substantial pollutant concentrations. (Significant and Unavoidable)

  - Alternatives 1 & 2: Same as the Project. Alternatives 1 & 2 would have the same or similar impacts as those discussed for the Project for this criterion.

- **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)

  - Alternatives 1 & 2: Same as the Project. Alternatives 1 & 2 would have the same or similar impacts as those discussed for the Project for this criterion.

Hazards and Hazardous Waste

- **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 with Mitigation)

  - Alternative 1: Greater than the Project. Alternative 1 would require undergrounding approximately two miles of the transmission line along the portion of the alignment that crosses the San José-Santa Clara Regional Wastewater Facility's (RWF) drying beds. The RWF is a designated Cleanup Program Site with potential to contain contaminants such as polychlorinated biphenyls (PCBs). Therefore, the increase in underground construction activities (i.e., additional ground disturbance) could increase the potential in an accidental release of hazardous materials into the environment. Alternative 1 would have greater, short-term effects related to this criterion.

  - Alternative 2: Same as the Project. Alternative 2 would have the same or similar impacts as those discussed for the Project for this criterion.

- **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)

  - Alternatives 1 & 2: Same as the Project. Alternatives 1 & 2 would have the same or similar impacts as those discussed for the Project for this criterion.

- **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 with Mitigation)

  - Alternative 1: Greater than the Project. Alternative 1 would require undergrounding approximately two miles of the transmission line along the portion of the alignment that crosses the San José-Santa Clara Regional Wastewater Facility's (RWF) drying beds. The RWF is a designated Cleanup Program Site with a potential to contain contaminants such as polychlorinated biphenyls (PCBs). Therefore, the increase in underground construction activities (i.e., additional ground disturbance) could increase the potential

of an accidental release of hazardous materials into the environment. Alternative 1 would have greater, short-term effects related to this criterion.

  - Alternative 2: Same as the Project. Alternative 2 would have the same or similar impacts as those discussed for the Project for this criterion.

- **Impact 3.9-4:** Project construction would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant with Mitigation)

  - Alternatives 1 & 2: Same as the Project. Alternatives 1 & 2 would have the same or similar impacts as those discussed for the Project for this criterion.

- **Impact 3.9-5:** 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)

  - Alternatives 1 & 2: Same as the Project. Alternatives 1 & 2 would have the same or similar impacts as those discussed for the Project for this criterion.

- **Impact 3.9-6:** The Project would not create a significant hazard to the public or environment through the transport of heavy materials using helicopters. (Less than Significant)

  - Alternatives 1 & 2: Same as the Project. Alternatives 1 & 2 would have the same or similar impacts as those discussed for the Project for this criterion.

- **Impact 3.9-7:** The Project would not expose workers or the public to excessive shock hazards. (Less than Significant)

  - Alternatives 1 & 2: Same as the Project. Alternatives 1 & 2 would have the same or similar impacts as those discussed for the Project for this criterion.

Noise

- **Impact 3.13-1:** The Project would not 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. (Less than Significant)

  - Alternatives 1 & 2: Same as the Project. Alternatives 1 & 2 would have the same or similar impacts as those discussed for the Project for this criterion.

- **Impact 3.13-2:** The Project would not generate excessive groundborne vibration or groundborne noise levels. (Less than Significant)

  - Alternative 1: Less than the Project. Alternative 2 would have lesser, short-term effects related to this criterion than the Project, as the transmission line alignment under this alternative would be farther from residences in the vicinity of Grand Boulevard.

  - Alternative 2: Same as the Project. Alternative 2 would have the same or similar impacts as those discussed for the Project for this criterion.

- **Impact 3.13-3:** The Project would not expose people residing or working in 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 and in the Project area to excessive noise levels. (Less than Significant)

- Alternatives 1 & 2: Same as the Project. Alternatives 1 & 2 would have the same or similar impacts as those discussed for the Project for this criterion.

Summary

As described above, and in Chapter 4, *Alternatives*, Alternative 1 would have greater, short-term effects related to air quality and hazards and hazardous materials, but would have lesser, short-term effects related to noise. Alternative 2 would have lesser, short-term effects related to air quality and would have similar effects related to hazards and hazardous materials and noise as the Project. From an environmental justice perspective, Alternative 2 would provide the most substantial reduction in impacts on sensitive receptors compared to the Project.

5.5.1.2 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 Alameda and Santa Clara counties (South Bay). The Project's location is shown in Figure 2-1, *Project Location*.

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. 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, temporary impacts within the Project area would not cause a substantial imbalance of impacts and benefits. The Project is expected to meet all identified Project objectives, specifically those addressing near-term and long-term reliability concerns in the South Bay area; therefore, it is anticipated that the Project would result in a net benefit in the long term.

5.6 References

EDD (Employment Development Department), 2025a. Labor Market Information Resources and Data, Alameda County Profile. Available at: https://labormarketinfo.edd.ca.gov/geography/alameda-county.html. Accessed May 22, 2025.

EDD (Employment Development Department), 2025b. Labor Market Information Resources and Data, Santa Clara County Profile. Available at: https://labormarketinfo.edd.ca.gov/geography/santaclara-county.html. Accessed May 22, 2025.

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 April 9, 2025.

OAG (Office of Attorney General), 2024. Environmental Justice. Available at: https://oag.ca.gov/environment/justice. Accessed April 9, 2025.

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